



WAY FORWARD TO 

SUSTAINABLE

GROWTH IN THE NEXT DECADE

MEMBER OF

Dow Jones Sustainability Indices

In Collaboration with RobecoSAM 

Banpu Public Company Limited became a member of the Dow Jones Sustainability Indices (DJSI) in Coal & Consumable Fuels sector for 2nd consecutive year in 2015.

and ranked highest level (Industry Leader) from the assessment by Robeco Sustainable Asset Management (RobecoSAM).

GreenPrint Reduce CO₂ Emission **28.78%**
เครื่องหมายรับรอง “งานพิมพ์สีเขียวรับผิดชอบต่อสิ่งแวดล้อม”



BANPU



WAY FORWARD TO
SUSTAINABLE GROWTH
IN THE NEXT DECADE

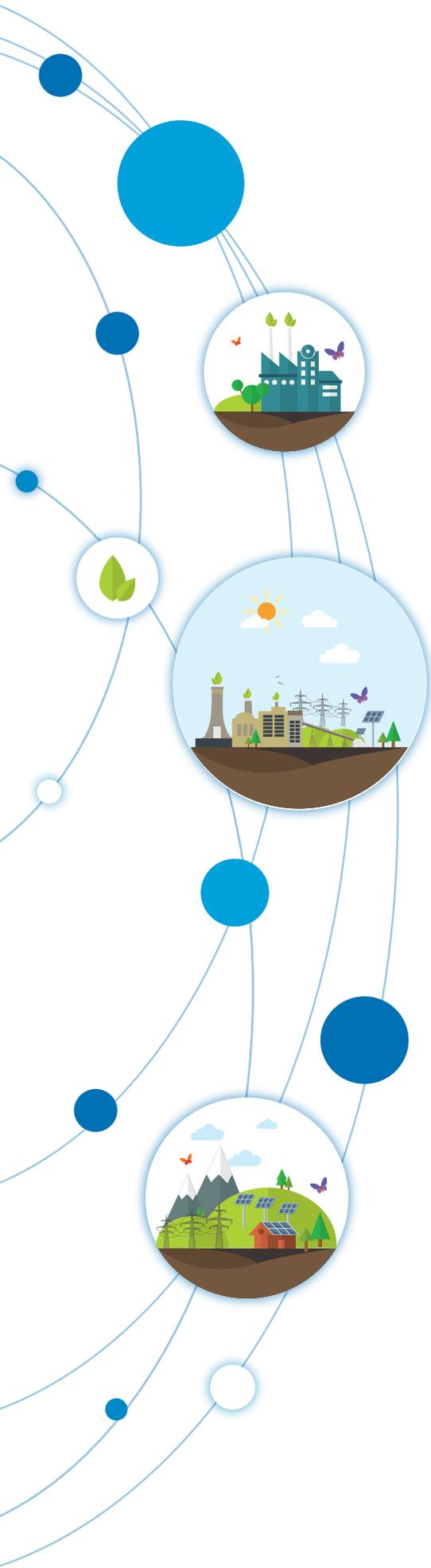
SUSTAINABILITY REPORT

2015



C O N T E N T S

SUSTAINABILITY REPORT 2015



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AT A GLANCE



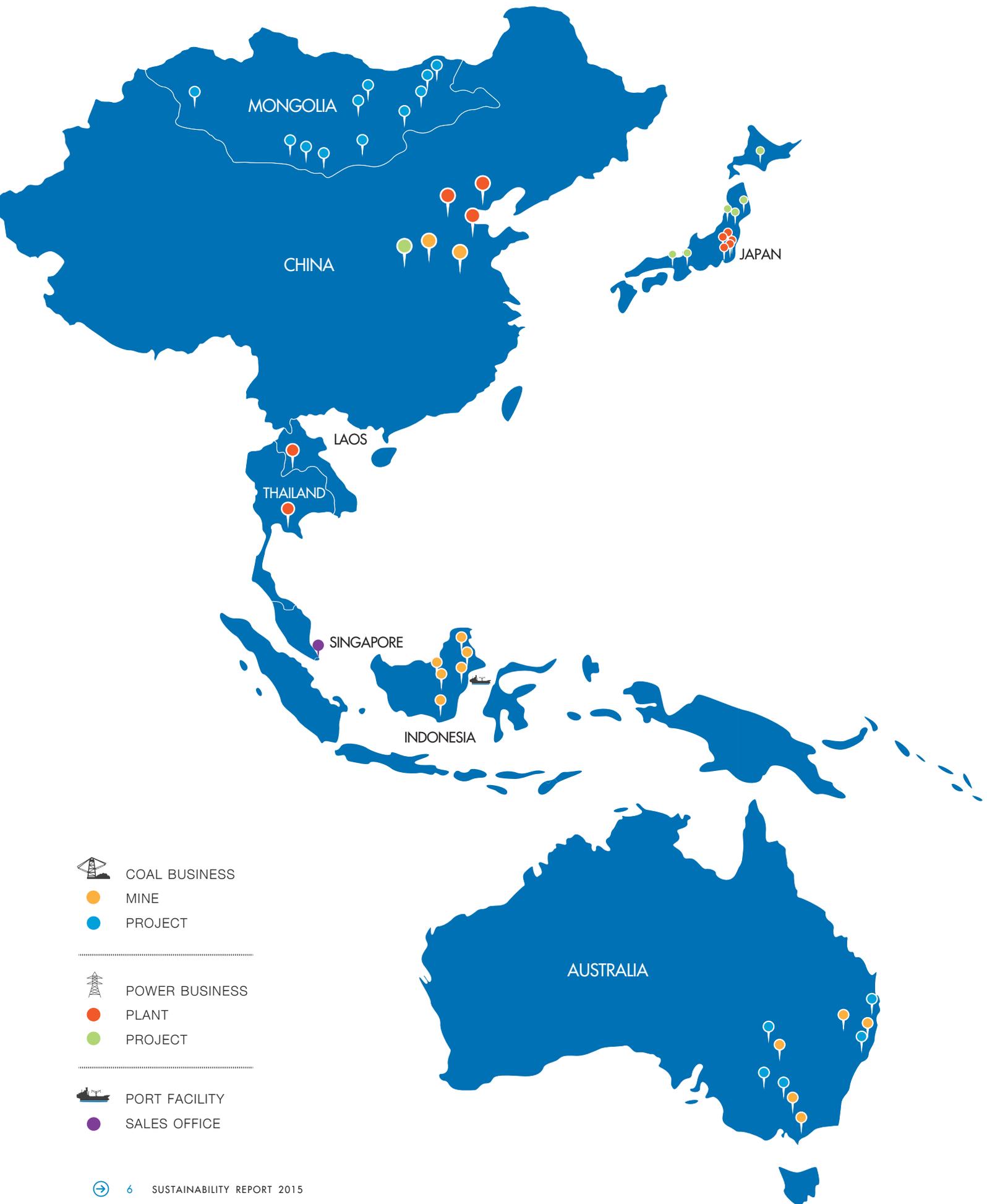
VISION

To be an energetic Asian energy provider of quality products & services and be recognized for its fairness, professionalism, and concerns for society and environment.

MISSION

- To develop businesses in the fields of energy in pursuit of Asian leadership position.
- To diversify and invest in strategic businesses to enhance competitiveness.
- To provide a variety of quality products and services with commitment, reliability, and flexibility.
- To conduct business in a socially, ethically and environmentally responsible manner.
- To build sustainable value for shareholders, customers, business partners, employees, local communities, and to be a good citizen to host governments

MAP OF OPERATIONS



-  COAL BUSINESS
-  MINE
-  PROJECT

-  POWER BUSINESS
-  PLANT
-  PROJECT

-  PORT FACILITY
-  SALES OFFICE

ABOUT BANPU



Banpu, has over 30 years of accumulated experience in the domestic and international coal industry. The Company operates coal and coal-related businesses - ranging from investment, exploration and development, to production of both thermal and coking coals. Our expertise lies in open-pit and underground coal mining operations, coal-fired power generation as well as renewable energy. At present, we have business based in Thailand, Indonesia, Australia, China, Laos, Mongolia, Japan and Singapore.

Our Business in Thailand

Although mining operations in Thailand are closed due to the depletion of coal reserves, Banpu has poured its expertise in coal exploration and production into business expansion and operations overseas. Being the pioneer of the private power plant development project in Thailand, at present, Banpu Power Public Company Limited, a subsidiary of Banpu, holds a 50% share in BLCP Power Limited, a 1,434 MW coal-fired power plant in Map Ta Phut Industrial Estate, Rayong province.



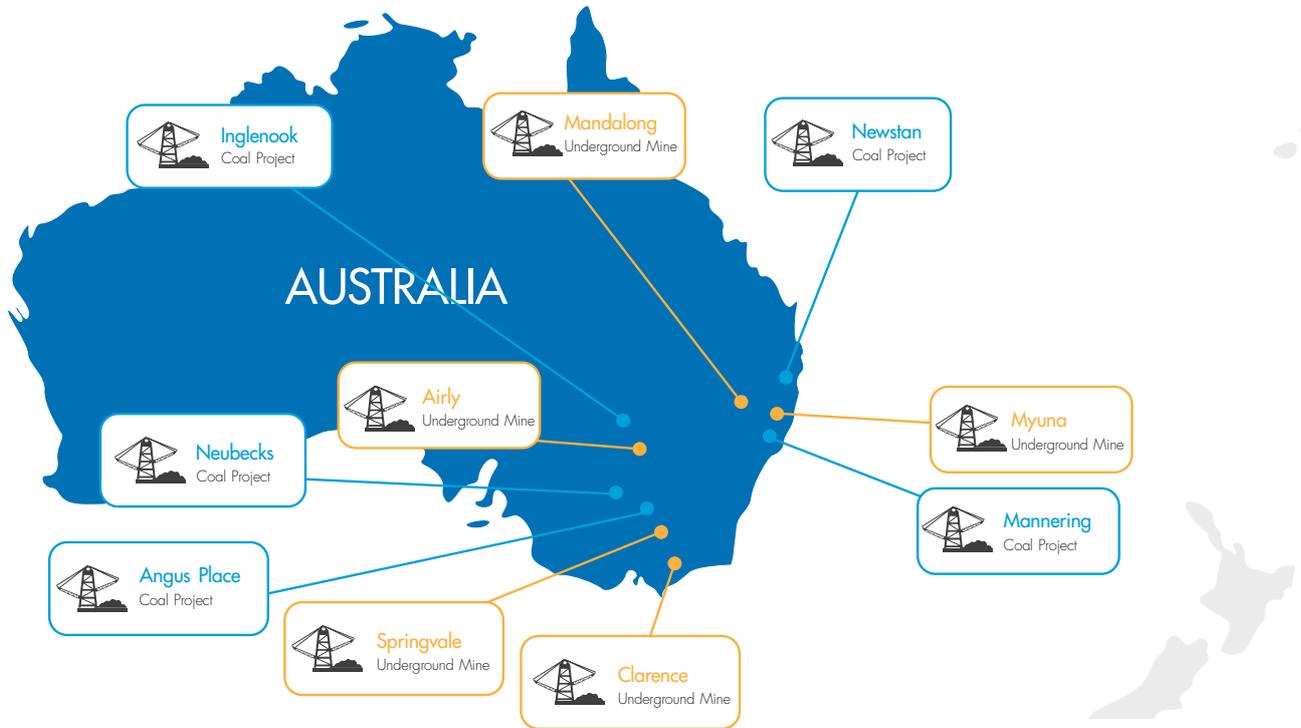
Our Business in Indonesia

Banpu entered Indonesia's coal industry in 1991 and, with its continuous growth, Indonesia has become one of Banpu's significant production base. Currently, PT. Indo Tambangraya Megah Tbk (ITM), Banpu's subsidiary company listed on the Indonesia Stock Exchange, manages 6 coal mines in Kalimantan: Indominco, Trubaindo, Jorong, Kitadin-Tandung Mayang*, Kitadin-Embalut, and Bharinto. These mines produce a range of bituminous and sub-bituminous thermal coals suitable for both export and domestic consumption, with a total annual production capacity of around 29 million tonnes and an annual port handling capacity of 18 million tonnes.

* Entered mine closure stage at the end of 2015

Our Business in Australia

To enhance growth, corporate value, and geographical diversification, Banpu wholly acquired Centennial Coal Company Limited (Centennial) in 2010. Centennial is a coal mining and marketing company, supplying thermal coal and coking coal to the domestic and export markets. There are 5 coal mines, both underground and open-pit operated, namely Airly, Clarence, Mandalong, Myuna, and Springvale, with a total annual production capacity of around 15 million tonnes and 5 more coal projects under development and care & maintenance stage. All of which are located in the north and the west of New South Wales.



Our Business in Mongolia

In late 2011, Banpu successfully acquired Hunnu Coal Limited, a specialized company in coal exploration and mine development with thermal and coking coal deposits in Mongolia. Currently, there are several projects under development such as Tsant Uul to test the Coal to Coal Tar production, Unst Khudag to complete geological models and Altai Nuurs to complete drilling test for preliminary economic analysis.





Our Business in China

Banpu expanded its coal business into China for more than 10 years, with its subsidiary, Banpu Oversea Development Company Limited managing all operations of coal business in China. At present, the Company holds a 45% stake in Shanxi Gaohe Energy Company Limited., which operates the Gaohe underground mine in Shanxi Province. The Gaohe mine started its commercial production in late 2012, with a maximum capacity of 10 million tonnes per annum from 2013 onwards. In addition, Banpu holds a 40% stake in Hebi Zhong Tai Mining Co., Ltd. (HZTM), which operates the Hebi mine in Henan Province with an annual production capacity of 1.5 million tonnes.

In 2006, Banpu expanded its investment into China’s power industry through Banpu Power Public Company Limited. Now, Banpu Power operates and manages three Combined Heat and Power (CHP) plants in northern China: Luannan and Zhengding in Hebei Province, and Zouping in Shandong Province. The three plants have a total power capacity of 273 MW and a steam capacity of 948 tonnes per hour. In addition, Banpu Power holds a 30% share in Shanxi Lu Guang Power Co., Ltd., a 1,200 MW coal-fired power plant which is now under construction with commercial operations scheduled to start in 2017.

Our Business in Laos

The ‘Hongsa Power Plant’ project – a 1,878 MW mine-mouth power plant which consumes lignite as energy source in Hongsa District, Xayaburi Province in Lao PDR – is the power plant development project in cooperation with Ratchaburi Electricity Generating Holding Public Company Limited (RATCH) and Lao Holding State Enterprise (LHSE), a state-owned enterprise of Lao PDR. The ‘Hongsa Power Plant’, was started commercial operation of Unit 1 on June 2, 2015 and Unit 2 on November 2, 2015. Later, the commercial startup of Unit 3 will be done in March 2016.

Our Business in Japan

To balance our portfolio, Banpu studied and invested in renewable energy in Japan through Banpu Power Public Company Limited. At present, Banpu Power operates five solar power plants in Japan with total capacity of 10 MWac and there are several solar power plant projects under development and construction phase.

CEO MESSAGE

In 2015, we became a member of the Dow Jones Sustainability Indices (DJSI) for the second consecutive year. We also received the SET Sustainability Award 2015 from the Stock Exchange of Thailand which is given to the listed companies with outstanding sustainability performance and who are able to ensure value creation for all stakeholders. In the RobecoSam Sustainability Yearbook, Banpu retained the 'Industry Leader' position for the Coal & Consumable Fuels sector while adding the 'Industry Mover' award based on achieving the biggest proportional improvement in its sustainability performance compared to industry peers. With this level of both national and international recognition, there is clearly no room for any complacency at Banpu. We have set some high standards and must now live up to these standards and seek to improve them from year to year.

In order to move forwards in an uncertain coal market situation, a three-stage strategy has been implemented to increase business value. In the first stage, cost management and productivity improvements have been put in place to optimize operations and strengthen competitiveness. The second stage has focused on maximizing synergies across our assets including greater emphasis on our power business in the Asia-Pacific region. The third stage and longer-term strategy is to seek new business opportunities to diversify our portfolio.

Thanks to the vision, leadership and efforts of Mr. Chanin Vongkusolkrit over the past three decades, Banpu is now present in eight countries across the Asia-Pacific region with a formidable reputation as one of the most ubiquitous and versatile energy players in the region. It is certainly a great honor that I was appointed in 2015 as a new

Director and as CEO of Banpu. I would like to thank the board, management and all shareholders for the confidence that they have in me and in the support that I have received from them.

It is with profound regret that we had to report that one of our contractors had a fatal accident in the middle of 2015 while attending to maintenance activities. This is totally unacceptable and our heartfelt condolences go out to the contractor's family, friends and colleagues. We must do everything in our power to prevent serious accidents like this from happening again. We have launched a thorough investigation to identify the root cause and improved various operational processes surrounding the incident.

Our focus on health and safety must come, of course, first and foremost from a profound, humane and genuine care for all our people and indeed for all our stakeholders. Intrinsic to the Banpu Spirit is a creed and philosophy of 'One Family' at Banpu. All stakeholders are part of our extended family and we care for all stakeholders as we would do to our own family. As CEO, I see it as my very first duty to do whatever I can to make sure that all our people - including contractors - go home safely each and every day. But it is also important to realize that our people are by far our most valuable 'asset' and our single most potent competitive advantage. Safety therefore is not only about care and humanity, it is also the key to our performance. As such, I have set it as an absolute priority that Banpu must achieve international best - in - class standards in health, safety, environmental protection and community service.

Last but not least it is clear to me that to move towards a truly sustainable future, it is critical that we cultivate an innovative culture and approach to the way we manage our systems, the way we tackle problems - and to the way we develop new business. I will do what I can as CEO to foster innovation as an integral part of the Banpu Spirit.

On that note I would like to thank all stakeholders for their continued support to Banpu - and for working with Banpu to create value for society. We look forward to continuing our journey with all stakeholders hand-in-hand.



A handwritten signature in black ink, consisting of stylized initials and a surname.

Somruedee Chaimongkol

Chairman of the Sustainable Development Committee
and Chief Executive Officer

ABOUT THIS REPORT



In this 2015 Sustainability Report, we chose to present more of material aspects based on elements deemed vital for our sustainable growth and development. These elements comprise of Competitiveness and Value Creation to Stakeholders with reviewed annually by Sustainable Development Committee. Other aspects are available in the performance indicators according to Global Reporting Initiatives (GRI) framework. To gain wider accessibility for all stakeholders, the report is prepared in two versions, Thai and English, which can be downloaded from our website. For those who prefer it in written format or in the form of CD, they can contact the Sustainable Development Division directly in which the contact information is at the back cover of this report, page 150.

This Sustainability Report is based primarily on the 4th generation of the Global Reporting Initiative (GRI). We consider our disclosure level as 'In accordance-Core' which is the disclosure of at least one indicator per one material aspect as identified in GRI content index.



Boundary

The boundary of 2015 Sustainability Report covers period from January 1, 2015 to December 31, 2015 with the business that Banpu holds more than 50 percent investment. For this report, the content covers more scope than the previous one. It includes the operational performance of the Hunnu coal mine project in Mongolia and solar power projects in Japan. Therefore, the 2015 Sustainability Report encompasses our coal business in Indonesia, Australia and Mongolia as well as our power business in China and Japan.

For those who are particularly interested in studying the sustainability report of each business, some of our subsidiaries have reported their sustainability development progress as well. Interested individuals

can learn from their website, such as Centennial Coal at www.centennialcoal.com.au for our business in Australia and PT.Indo Tambangraya Megah Tbk at www.itmg.co.id for our business in Indonesia. As for other businesses in which we have either direct or indirect investment less than half, and does not directly participate in their management, but only supervise through those companies' Board of Directors; for example, coal business in China, BLCP Power Plant in Thailand and Hongsa Power Plant in Laos, their performance will not be included in this report.

Next Step

We are determined to continually improve the quality of our sustainability report in order to enhance information disclosure as well as to be able to assess its credibility by the third party in the future.

SUSTAINABLE DEVELOPMENT



Sustainable Development Policy

At Banpu, we have a strong belief that an industry would be vigorous only when it is developed in tandem with social and environmental responsibility. We are dedicated to conduct our business with good corporate governance and management of economics, environmental and social risks and opportunities. In every location, we put sustainable development framework into practice through the effective implementation of international best-in-class standards to create Competitiveness and Value creation to all stakeholders as follows

Competitiveness

- **People** : Respect for employees' human rights by fair treatment, Build strong corporate culture through Banpu Spirit, and employee development, Enhance leadership and technical competency.
- **Operational Excellence** : Focus on the flexible and efficient business process along the supply chain with innovation and continuous improvement, provide superior products and services to customers and enhance customer relationship management, and seek for new business opportunities.

Value Creation to Stakeholders

- **Compliance** : Adhere to good corporate governance and comply to stipulated laws and regulations, including international standards.
- **Occupational Health and Safety** : Care for occupational health and safety of our employees and business partners by the alignment of 3 safety principles; Zero incident, Zero repeat, and Zero compromise, to eliminate fatalities, injuries and occupational illness.
- **Environment** : Balance business development alongside environmental protection, study and evaluate environmental impact before project implementing as preventive measure in every projects, reduce or optimize resource utilization, provide pollution prevention at sources and proper environment management along supply chain.
- **Community** : Create sustainable values to our host community through community engagement, tax contribution, local employment and other programs toward stakeholders' acceptance.



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Value creation to stakeholders

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In implementing this policy, we establish measurable indicators to monitor and review in order to ensure that our Sustainable Development policy would be practically achieved.

Document No.: TH-HSEC-SD-PO-01 Revision: 1 Date: 1 April 2016	 (Somruedee Chaimongkol) Chief Executive Officer
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Strategy for Sustainability

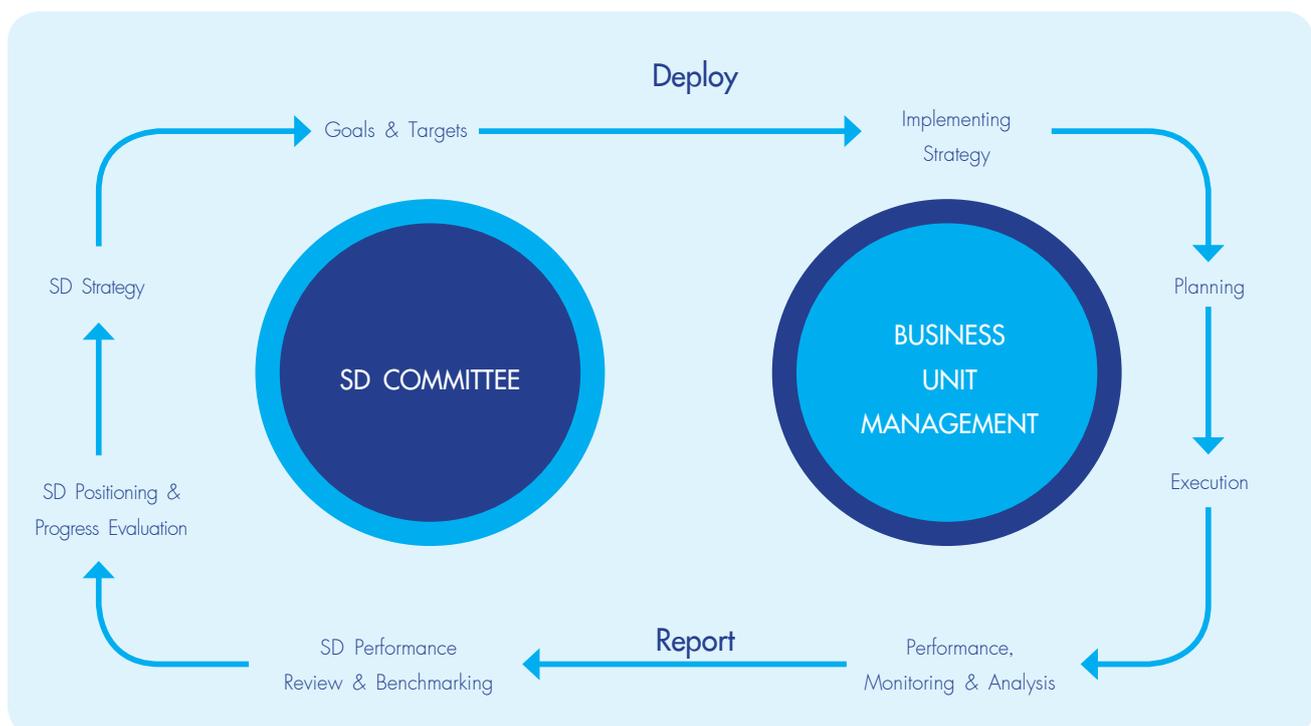
Adhering to the vision that “To be an energetic Asian energy provider of quality products and services”, the Company has run the business with good corporate governance principles and management approach to balance sustainable growth of economic, society and environment. Therefore, the national and international guidelines such as Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs) were integrated into corporate sustainable development strategies. Furthermore, UN Guiding Principle on Business & Human Rights and Universal Declaration of Human Rights were also embedded into our Human Resources Policy and Human Rights Policy.

For Banpu, sustainability does not mean that we can sustain only as an entity. Rather, it means our sustainability, which is a fruition of our performances, personnel and corporate culture, will also bring growth to the society, environment and all stakeholders. To be an energetic Asia energy provider as we envision, proactive actions, leadership in quality performances, possessing internationally recognised operation plans and embracing agility are fundamentals that will lead us onto a path of sustainable growth.

Management Approach

For Banpu, sustainability means long-term existence, and is the combined result of our business performance, our people and our corporate culture. It is our ambition not just to exist in the long run but to bring sustainable growth and development to society, to the environment and to our stakeholders. We aim to become the dynamic regional energy provider. Proactivity, flexibility, excellence in quality as well as internationally accepted frameworks, are fundamental to our sustainable growth.

Since 2013, Banpu has incorporated sustainable development as part of our long-term strategic plan to ensure that our business takes the interest of all stakeholders' groups into consideration. In addition, the issue of sustainable development is one of the annual Key Performance Indicators (KPI) assigned for CEO and senior executives.



Sustainable Development Committee



To ensure the substance and continuous development of sustainability, Banpu has formed Sustainable Development Committee. Chaired by the Chief Executive Officer, the Committee consists of senior executives, and heads of business units in the countries the Company has invested. The Committee performs following roles and functions;

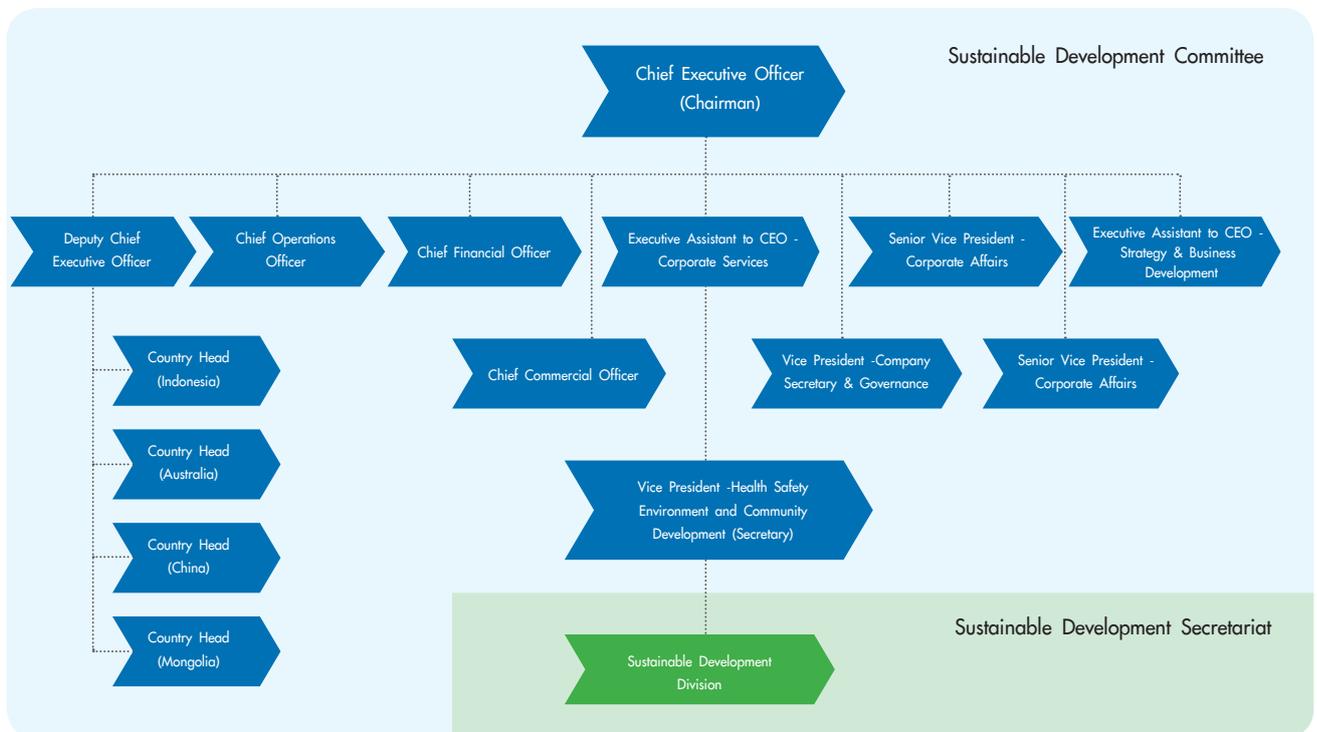
- To determine the Company's sustainable development policy as well as other policies and management frameworks that are acceptable to the community and society in order to strengthen the competitiveness of the Company
- To track the performance of business units within Banpu group in the areas of occupational health, environment, safety, economy and society which can

influence the decision making that may affect various stakeholders, thus, their trust in the Company

- To track the performance of other operations within Banpu group and ensure compliances with sustainable development policy
- To review and approve sustainability report contents

The SD Committee gives priority to leadership and corporate governance, compliance, strategic planning, customers, human resources, finance, operational excellence, environment, occupational health and safety, community and government relations. The committee convenes four times a year.

Sustainable Development Governance Structure



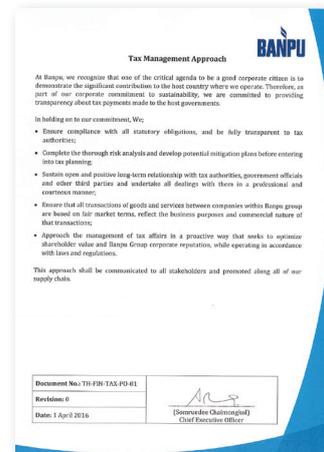
Human Rights Policy

We respect on human rights as integral part of our sustainability. In line with the Universal Declaration of Human Rights (UDHR) and the UN Guiding Principles on Business and Human Rights (UNGPs), we avoid causing or contributing to any negative impacts on human rights through our activities and seek to prevent and mitigate such impacts. Our respect implements through the corporate share value “Banpu Spirit”.



Tax Management Approach

We recognize that one of the critical agenda to be a good corporate citizen is to demonstrate the significant contribution to the host country where we operate. Therefore, as part of our corporate commitment to sustainability, we are committed to providing transparency about tax payments made to the host governments and ensure that all transactions within Banpu group are based on transparency and fairness, for sustainable growth of every countries that we conduct our business and all related stakeholders.



Thailand Sustainability Recognition

2015 was the first year that the Stock Exchange of Thailand (SET) bestowed its SET Sustainability Award to listed companies that take economic, social and environmental criteria into consideration when running businesses. Banpu has been awarded the SET Sustainability Award under the group of companies with market capitalisation between THB 30-100 billion. We are also named as one of Thailand Sustainability Investment equities, which refers to a group of equities with outstanding performances in Environment, Social and Governance (ESG) under the SET’s criteria.



International Sustainability Recognition

In 2015, Banpu was assessed once again by Dow Jones Sustainability Indices (DJSI), a global globally recognised benchmark that measures proven company performance for funds to invest. To be in the indices, DJSI selects 10% of global leaders out of more than 2,500 listed companies in equity markets worldwide based on market capitalization and sustainability performance resulted from an assessment of economic, environmental and social criteria. Members of the DJSI are annually reviewed before the results are announced in September. Banpu has been named as a member of DJSI in the emerging market group for the second consecutive year, which reflects international recognition of our sustainability development activities.

In 2015, we were also assessed by Robeco Sustainable Asset Management (RobecoSAM), an international investment company with a specific focus on sustainable investments which conducts corporate sustainability assessment annually using the same databases as in the DJSI's review. RobecoSAM announces companies selected as RobecoSAM Sustainability Leader in each industrial group in its RobecoSAM Sustainability Yearbook in January of every year. Banpu has been named as an Industry Leader and awarded Gold Class in the Coal & Consumables Fuels for the second consecutive year when the results were announced in January 2016. Banpu is also named as an Industry Mover this year, an accolade given to companies with the highest increase in terms of ratio of sustainability activities. This is a true reflection of Banpu's outstanding sustainability initiatives compared to others in the same industry at the international level.

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Sustainability Indices
In Collaboration with RobecoSAM



STAKEHOLDERS ENGAGEMENT



Banpu is engrossed to create fairness to all stakeholders and trust that business can be sustained only when the economic, environmental, and social drives are well balanced among stakeholders, both internal and external who create impact and may be affected by our operations. We focus our sustainable development efforts on stakeholder engagement throughout our supply chain.

To gather the concern from stakeholders, we have implemented various methods according to appropriateness for each group, either by ourselves such as interviews with customers by our sales department and discussion with government agencies by management visit, or by external consultants such as community satisfaction survey with surrounding communities and engagement survey with our employees.

The expectations from various groups of stakeholders are shown in the table below.

Group of Stakeholders	Issue	Engagement
Customers	<ul style="list-style-type: none"> • Quality products at reasonable prices • On time delivery of products in accordance with specified quality and quantity • Other services that promote economic, social, and environmental development • Business agreements that are fair to both parties • Customer Relationship Management • Customer Privacy 	<ul style="list-style-type: none"> • Customer satisfaction surveys • Channels for customer feedback on quality, quantity, and safety of products and services • Customer visits • Technical support on product utilization and services to enhance product effectiveness and ensure utmost benefits for customers • Response to customers' requests for product information disclosure or reports • Joint projects on environmental and social initiatives



Group of Stakeholders	Issue	Engagement
Employees	<ul style="list-style-type: none"> • Performance-based pay in relation to targets set in annual action plans • Employee engagement • Appropriate remuneration and welfare in line with economic and social conditions • Safe working conditions • Fair treatment with respect to individual and dignity of human beings and rights • Development of competency and skills required for assigned tasks and in line with their career path • Employees' commitment to "Banpu Spirit" 	<ul style="list-style-type: none"> • Employee engagement in performance evaluation in order to reach targets set in annual action plans • Employee engagement surveys • Communication channels between Human Resources and employees, such as e-newsletters and meetings with other departments, etc. • Improvement of Individual Development Program (IDP) and competency system • Communication on career development, such as job evaluation system, key performance indicator system • Competitive remuneration system • Development of career succession plan • Channels for complaints • Employee involvement in management of welfare and working conditions, such as Welfare Committee, Occupational Health and Safety Committee, etc. • "Banpu Spirit" behavioral surveys • "Banpu Spirit" campaigns • Support to employees' social activities, including sport clubs, volunteer clubs, CSR activities etc.
Contractors	<ul style="list-style-type: none"> • Equal opportunity and fairness in contractor selection • Fair contract rates in line with economic and social conditions • Safe working conditions • Business agreements that are fair to both parties • Commitment to environmental, safety, and social development initiatives 	<ul style="list-style-type: none"> • Fair and transparent contractor selection and evaluation process • Regular meetings with contractors to track and improve production, safety, and environmental performances • Annual Executive Mine Contractor Meeting in Indonesia to inform contractors about policies, key issues, and concerns • Contractor Management System applied to Indonesian operations



Group of Stakeholders	Issue	Engagement
Shareholders	<ul style="list-style-type: none"> • Short- and long-term returns on investments • Business growth and stability • Transparency in business management and engagement of minor shareholders 	<ul style="list-style-type: none"> • Annual General Meeting of Shareholders which enables shareholders to exercise voting rights and give comments or raise questions on equal basis • Annual Report and other reports, such as SEC 56-1 report, press releases, etc. • Channel for shareholder feedback
Business Partners	<ul style="list-style-type: none"> • Fair returns on investments for both parties • Commitment to agreements 	<ul style="list-style-type: none"> • Board meetings at subsidiary and associated companies at which business partners can voice opinions and exercise their rights
Creditor	<ul style="list-style-type: none"> • Fair returns on loans and service fees • Ability to repay debts and punctual payment • Commitment to agreements 	<ul style="list-style-type: none"> • Opportunity Investment Road shows • Regular visits to provide performance and business updates
Capital Market	<ul style="list-style-type: none"> • Company performance • Corporate governance • Risk management and business strategies 	<ul style="list-style-type: none"> • Analyst meetings • Presentation on Opportunity Day organized by the Stock Exchange of Thailand • Opportunity Investment Road shows • Publication of annual reports and other reports • Executive interviews
Supplier	<ul style="list-style-type: none"> • Fairness and equal opportunity in procurement process • Fair prices • Business agreements that are fair to both parties • Commitment to agreements 	<ul style="list-style-type: none"> • Transparent and accountable procurement process • On time payment policy



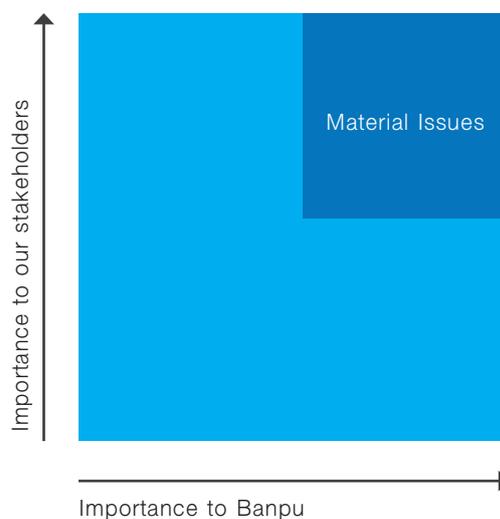
Group of Stakeholders	Issue	Engagement
Communities	<ul style="list-style-type: none"> Care for environment Improvement quality of life and community relationship Positive economic and social contributions while preserving local traditions 	<ul style="list-style-type: none"> Constant communication with community leaders about planning and progress of community development projects Cooperation with local authorities to support development projects for utmost benefits of people and communities Coordination with local educational institutions in reviewing development projects that are most suitable to particular communities Community perception surveys Community visits on various occasions Community development projects that engage Company, community representatives, and government agencies Channels for complaints
Government	<ul style="list-style-type: none"> Compliance with regulatory requirements Care for environment Technology transfer to local employees Job creation Tax payment Certainty in and proper timing for issuing laws and regulations Fair rules and regulations Integrated operation based on engagement of major stakeholders, including local government agencies, local educational institutions, and mining contractors 	<ul style="list-style-type: none"> Compliance with laws and regulations and timely reporting of such compliance Payment of taxes, royalties, and other fees set by government Support to governmental initiatives/ activities Occasional visits to government agencies Community development projects that engage Company, community representatives, and government agencies

MATERIALITY ASSESSMENT



Banpu conducted materiality assessment by applying Global Reporting Initiative (GRI) Reporting Guideline. The assessment considered 2 dimensions which are importance to the organization and importance to our stakeholders. The aspects identified as very important to both Banpu and our stakeholders were identified as Material Issues and then disclosed in the Sustainability Report.

The material issues were grouped according to our sustainability context into 2 sustainability elements which are Competitiveness and Value Creation to Stakeholders with details as follows:



Element	Aspect	Material Issue
Competitiveness	People	Performance Management Human Capital Development Corporate Culture "Banpu Spirit" Employee Engagement
	Operational Excellence	Operational Management Technology Development
Value Creation to Stakeholders	Compliance	Compliance
	Occupational Health and Safety	Safety Occupational health Supply Chain's Occupational Health and Safety Management Business Continuity Management
		Environment
	Community	

PRODUCTS & SUPPLY CHAIN



Coal Business in Indonesia

Our Challenge and Opportunity in Indonesia

Coal production in Indonesia in 2015, has declined significantly in response to reduction of China's coal import. The 2015 production was at 453 million tonnes, decreased by 9.4% equivalent to 47 million tonnes from the previous year. This decreased output was due to closing down of medium and small coal producer, meanwhile the large producers are still stable and reliable and some of them are holding long term coal contract. Last year, the Indonesian government issued various measures to increase revenue and suppress the coal production from illegal mining, such as exporter must obtain Clean and Clear status, coal tariff collection, etc. However, this measures were not alleviated such oversupply situation. In 2015, Indonesia has exported coal equivalent to 82% of Indonesia's total coal production, decreased by 12% or 370 million tonnes from 2014. Whereas, domestic Indonesia coal demand has grew steadily in line with new coal-fired power plant operation. In 2015, domestic Indonesia coal demand was at 83 million tonnes which increased by 6% due to mostly of the country's increased electricity generation which uses low quality coal for its operation.

Our Product in Indonesia

In 2015, PT. Indo Tambangraya Megah Tbk (ITM), our subsidiary in Indonesia produced 28 million tonnes of coal from six mines located in different parts of Indonesia. Some coal was shipped directly from a particular mine to customers, while some coal from several sources was blended before shipping to match the quality specified by an individual customer. Our coal products can be classified as per quality into 5 main categories as follows:

- **HCV (High Calorific Value)** is the highest quality rank from our Indonesia operations. It has high heating value of approximately 6,700 kcal/kg on an air dried basis while sulfur content is lower than 1%. In addition,

its ash and moisture content is also low, making it popular for market demand.

- **MCV (Medium Calorific Value)** is also of a high rank coal and our main product. MCV has heating value of approximately 6,250-6,500 kcal/kg on an air dried basis, sulfur content of less than 1% as well as low ash and moisture content. It is suitable for use in power plants and cement factories, where coal is supplied from Indominco, Trubaindo and Bharinto mines. Moreover, some of this product is blended from other mines in order to meet the quality requirements.
- **High Sulphur** is a high sulphur coal. Products from this category is very diverse in terms of heating value, ranging from 6,000 to 6,700 kcal/kg on an air dried basis, and sulfur content of 1.2-2.2%. Coal of this category is sold to cement plant or power plant with flue gas desulfurization systems.
- **J-1** is a sub-bituminous coal, produced at Jorong mine. It has high moisture and low heating value. However, its strong point is of very low sulfur content.
- **Embalut** belongs to the high rank coal variant. Produced at Kitadin-Embalut mine, it has medium heating value but its ash content is suitable for supply in the metal industry.

Our Market in Indonesia

Our primary customers are large power plants with demand for high volume of coal to generate electricity. These customers are located in many parts of the world, namely Japan, South Korea, Taiwan, China, India, Malaysia, Philippines, Indonesia, and several countries in Europe. Most of them are government enterprises or large public companies that require reliability and consistency of fuel supply; they opt to purchase coal from producers who provide high reliability. Last year, we sold 85% of our Indonesia coal to this power market. The rest is sold to the cement, petrochemical, paper, plastic and chemical industries.



Coal Business in Australia

Our Challenge and Opportunity in Australia

Coal is abundant in Australia, especially across the eastern seaboard states of New South Wales and Queensland where high sub-bituminous and bituminous quality black coal is prevalent. A recent Australian Energy Resource Assessment (AERA) notes that there are over 120 operating mines, with several new mines and expansion projects in various stages of development. Furthermore, from AERA data, Australia is the world's fourth largest coal producer (with approximately 76.4 billion tonnes coal resource) and is also the world's second largest coal exporter (largest coking coal exporter and second largest thermal coal exporter).

Our Product in Australia

Centennial Coal Company Limited (Centennial), our subsidiary in Australia produced thermal coal and coking coal from 7 coal mines with a total annual production capacity around 15 million tonnes which will be sold to both domestic and export markets. For overseas customers, coal is transported via rail to Port Kembla Coal Terminal (PKCT) or Newcastle Coal Infrastructure Group (NCIG).

Our Market in Australia

Financial strength and viability are at the center of business sustainability, and accordingly, Centennial seeks to maintain a balanced sales portfolio between domestic and export markets. Coal contracts with domestic generators tend to be for longer-term, with volumes and prices have been negotiated and settled in advance. This provides Centennial with a high degree of business certainty for substantial portion of its output. Domestic sales are primarily delivered to mine mouth power stations, for which Centennial has extensive delivery infrastructure, including private hauling roads and belt conveyor. This avoids a reliance on transporting coal via public roads, which is a significant environmental, social and cost advantage.

The balance of Centennial's production is largely sold into Asia's premium export markets (Japan, Taiwan and Korea) where higher quality Australian coals are blended with coal sourced from elsewhere, providing the customers with the ability to achieve a blended price and quality. Centennial has boosted its export infrastructure, with the full commissioning of an upgraded Lidsdale Siding train loading facility in mid-2014. The upgrade provided state-of-the-art technology and increased access for our western mines to export markets. Centennial's infrastructure, approach and geographic locations seek to maximize synergies between our operations to provide reliable high quality product to our customers.

Power Business in China

Our Challenge and Opportunity in China

Growth rate of electricity consumption in China grew together with the demand from both industrial and domestic consumption. Even though, growth rate of electricity consumption in this year was decreased due to declining of economic growth, however, the electricity consumption in China was continually increased.

As part of the countermeasure for air quality issue, the Chinese government has laid several stringent policies on pollution from the industry and electricity generation by announcement of the new emission standards in 2011, which has already taken effect since July 2014. From this event, the Company intentionally put additional investment in flue-gas desulfurization, NO_x controlling system and electrostatic precipitator at our power plants. This is to ensure that we are operated in compliance with the new regulations including global environmental standards. Since our combined heat and power plants possess higher efficiency and better pollution control, they receive more support from the government such as guaranteed power purchase agreements with local power authorities and an exclusive right to sell steam and heat in designated districts.

Our Product in China

Banpu expanded its investment into China through Banpu Power Public Company Limited. At present, Banpu Power Public Company Limited operates three combined heat and power plants located in northern China, with net generating capacity of 273 MW for electricity and net generating capacity of 1,098 tonnes per hour for steam and hot water.

Power Plant	Location	Net Power Generating Capacity (MW)	Net Steam Generating Capacity (Tonnes/Hr)
Luannan	Hebei Province	100	128
Zhengding	Hebei Province	73	370
Zouping	Shandong Province	100	600



We manage our business to be in line with market opportunities. In winter, when demand for steam is high, we dedicate our full capacity to produce and distribute electricity and steam. During other times when the need for both power and steam is low, we will shift our focus to increase production efficiency to reduce production costs. This strategy allows us to effectively manage our costs and increase competitiveness so that we could achieve both production and sales targets. In 2015, Zhengding power plant increased production capacity to 73 MW and also constructed the new cooling tower so that the steam capacity was increased to 370 tonnes per hour. Moreover, Zhengding power plant initiated to produce cooling water as new product, to supply to customer during summer.

Our Market in China

Main products from these combined heat and power plants are electricity, heat and cooling water. The electricity transmitted directly to national grid which was operated by the government. The heat is distributed in the forms of steam and hot water for industrial and household customers by both underground and surface pipelines. While cooling water is distributed to customer such as hotel, supermarket, hospital and household during summer through the same pipeline as hot water.

Power Business in Japan

Our Challenge and Opportunity in Japan

Since the Fukushima nuclear power plant disaster in March 2011, Japan had reviewed its energy policy to focus on renewable energy. The renewable energy law was enacted in August at the same year with purpose to strengthen national competitiveness and promote domestic renewable energy industry. The form of renewable energy consists of solar, wind, hydroelectric, geothermal and biomass.

On 1 July 2012, a Feed-In-Tariff (FIT) scheme was introduced for the first time. Under the scheme, Japanese regional utilities must purchase electricity from renewable energy source at a fixed rate for a certain period of time depending on type of energy source. In practice, the procurement FIT price and procurement period are determined and announced annually by Ministry of Economy, Trade and Industry (METI).

According to FIT scheme from the government, renewable energy has been promoted across Japan. As a result, solar power has rapidly been expanded such that it is the second fastest growth energy source since 2013 (after China). The growth area is mega solar segment (above 1 MW) which is matched with Banpu's strategy.

Our Product in Japan

At present, Banpu Power via our subsidiary in Japan operates five solar farms with net installed capacity of 10 MWac. Moreover, there are many solar farm projects under study and development around the country.

Power Plant	Location	Installed Capacity (MWac)
Hitachi Omiya 1	Ibaraki Prefecture	2.0
Hitachi Omiya 2	Ibaraki Prefecture	2.0
Ozenosato Katashina	Gunma Prefecture	2.0
Sakura 1	Tochigi Prefecture	2.0
Sakura 2	Tochigi Prefecture	2.0



Our Market in Japan

As our strategic direction to increase investment in power business, especially renewable energy. We have invested in various solar projects after Japanese government introduced FIT scheme. The electricity generated will be transmitted directly to national grid operated by the government.



Customer Relationship Management

Coal Business

The Company is aware of customer satisfaction in terms of quality, price, and other product characteristics through customer relationship management program. In this program, we define customer group based on geographic location, provide Sale support representatives to take care each group closely. The Company also sets up customer relation management division whose responsibility is to explore and analyze its customers' needs and expectations, conduct satisfaction surveys, and handle customer complaints. Data gathered from customer survey are actively utilized in product and service improvement to meet the different needs of our customers. With updated database and market intelligence from the customer site visits, we are able to provide our customers with excellent after sales services. Yet, we continue our effort to improve our services by listening to customers' voices. We provide both direct and online channels to receive their complaints to respond to the customer's changing needs.

Our regular communication channels with customers are e-mails, telephone calls and faxes, including various communication applications. Also, our marketing team frequently visits customers to maintain good relationship and to update them with our information to ensure that we are capable of producing and delivering coals as promised. Moreover, we quarterly send operational report to customers to give them confidence that our production and delivery are in line with the agreements and that we can meet the needs of our customers in the long run.

Apart of customer visits of our sales representatives, we also assign our staff from production and quality control department to visit customers to get customers' feedback and concerns for further product and service improvement. Moreover, we organize management visits, by our top management to meet our customers' management, to strengthen relationship.

Power Business

We pay close attention to quality of our products and services. Readiness and stability in the production and sales of both power and steam is key to our customer satisfaction. Maintaining good customer relationship through honesty and mutual benefits enables us to gain trust and confidence from customers.

In conducting business with the government sector, relationships with local authorities are created based on the mutual goal of providing fundamental utilities and building trust with local communities. Our consistent support on community activities brings us trust and acceptance. In return, when affected by external factors, we receive helpful support from local authorities to alleviate the negative impact to our operations, for example, permissions to increase steam prices.

Complaint Channel and Complaint Management System

To ensure that all feedbacks from customers are taken care of, we provide channels for customer opinions via direct customer service representatives or our website on which name, email address, and phone numbers of our customer service representatives are provided. Upon receiving complaints from customers, we have a system for recording such complaints, assigning person to handle the complaints, and tracking system to ensure that all complaints are taken care of in the timely manner.

Customer Satisfaction Survey

The Company has conducted customer satisfaction survey through satisfaction survey form and assigning our staff from customer relationship management department for one-on-one interview with customer in response to customer's feedback and concerns for further product and service improvement. The recent customer satisfaction survey was conducted in 2015.

Customer Privacy

We realize the privacy of our customers' information. Therefore, we launched our policy and security practices to protect and maintain the information privacy of customers in order to build trust and confidence. Information related to the customers will be used only for the purposes of operation of the Company, such as for providing the best services, developing new products and offering better business requirements which meet the needs of the customer. Customer information will not be used, collected, or retained if the Company has no intention of doing the above. We insist on protecting customer's confidential information from loss, theft, misuse, unauthorized disclosure, modification, and unauthorized destruction. Our track records in 2015 have proven that there were no complaints regarding the mentioned issues.

Product Responsibility

The Company realize how importance on the safety of our products and services. The adoption of computer systems called Shipment Demand Pull is implemented through entire coal production process and supply chain to ensure that our product meets customers' expectations and also to enhance our traceability in case of any compliant. Moreover, the occupational health and safety of our customers including any effect to the environment and community from the use of our product are one of our concerns. Since our customers are mostly large scale manufacturers who are under strict government regulations regardless of where they are located, one can be assured that their uses of our products are in compliance with each country's regulations and hence, will cause the least effect on environment and community.

In 2015, there were neither report of harm caused by using our products nor complaint from community or warning from government in regards to the environmental and community issues.

Information of Product Safety

Given the specific characteristics of coal products, and our customers' wealthy knowledge and expertise of coal; it is unnecessary to have product packaging or label. However, we have prepared Material Safety Data Sheet (MSDS) in case that our customers request to comply with global standard regulations.



CORPORATE GOVERNANCE



Structure of the Board of Directors

The structure of the Board of Directors is one-tier system which comprising of thirteen Board members. Six of them are independent directors, Four are non-executive directors and the remaining two are executive directors. The Chairman of the Board is independent directors. The target number of independent director, prescribing in the practices of the Board of Directors, is comprised of no less than one-third of the total board members and no less than three independent directors as complied with regulation of the Stock Exchange Commission and the Stock Exchange of Thailand. In addition, at the 2015 Annual General Meeting of Shareholders approved to increase the number of board member from 12 directors to be 13 directors. Furthermore, The Board has stipulated the criteria of sub-committees nomination that all chairman of sub-committee are independent director, all members of the sub-committees are non-executive director, each director will be a member of not more than 2 sub-committees and the Chairman of the Board shall not seat in any sub-committee.

Board Diversity

Gender	Number
Female	1
Male	12

Nationality	Number
Thai	12
Indonesia	1

Roles and Responsibilities

The board has formulated “The Practices of the Board of Directors of Banpu Public Company Limited” in 2009 as a guideline for the board performance. The guidelines cover definitions, composition and criteria of the board, directors’ qualifications, terms of office and vacancies, duties and responsibilities of the board as well as meetings and voting procedures. It was reviewed and amended in 2011, 2012 and 2014 to reflect changing in its responsibilities and business conditions.

In 2014, the Board of Directors has improved the Corporate Governance of the Board allowing the service term of an independent director to be no longer than 9 years or no more than 3 consecutive terms, appointed director shall not hold a director of more than 5 listed companies in the Stock Exchange of Thailand and the resolution of the Board of Directors meetings shall have a quorum of at least 2 out of 3 of board of directors.

To be accountable for stakeholders’ benefits, the board has monitored and supervised Banpu management so that the firm has achieved its goals as well as shareholders’ interests. The board is fully aware that Banpu’s business must comply with the CG Policy and the Code of Conduct while interests of all stakeholders are considered. The board assigned the Chief Executive Officer to manage day to day operation where the authority, duties and responsibilities of the Chief Executive Officer and the Board of Directors are clearly prescribed.

The board defines the Audit Committee Charter, Corporate Governance and Nominating Committee Charter, and Compensation Committee Charter to serve as performance guidelines of such sub-committees. Performance Review Guidelines for the Board of Directors.

Performance Review Guidelines for the Board of Directors

The Board of Directors sets an annual target and evaluates the performance of the Chief Executive Officer accordingly. The Chief Executive Officer respectively, evaluates the performances of the senior management under his direct command. The criteria for appraisal are linked to the strategic plan and annual plans. Assessment result is a crucial factor to determine their remuneration and incentives. (Further details are provided in the 56-1 form regarding authority of the Chief Executive Officer).

In order to monitor outcome of management performance regarding the company goals, the board has set a monthly performance report as an agenda in the regular monthly board meetings to evaluate the monthly results against the targets. The report also includes an analysis of opportunities and risks in economic, environmental and social circumstances. An outlook for the next period and year on year outlook is also discussed. In case the goal deviates from the plan, the management is required to explain the causes. Then, the board may provide comments or recommendations for improvement and the management will report the result in the next period.

Compensation Management

The Board appoints the Compensation Committee to be responsible to set up compensation structure and system for the board and the management, including consideration of budget for salary, annual bonus and other employee benefits. Compensation committee will present its consideration to the Board for consideration. However, the remuneration package for the board members must be approved by shareholders in the Annual General Meeting.

In determining the compensation package, the Compensation Committee has integrated many factors into its criteria:

- Regarding the 2009 Compensation Committee Charter, the Committee will take the opinions of both internal and external stakeholders including

management, labor unions, and other stakeholders into its consideration. The Committee will also seek a market practice and information e.g. the compensation survey conducted by the Thai Institute of Directors (IOD), local market and international market surveys conducted by human resources consultants, etc.

- Engaging independent consultant specialized in the rewarding system to provide advisory services to the Committee.

Board of Directors Performance Assessment

The Corporate Governance and Nomination Committee reviewed the methods and the form used to evaluate the performance of the Board of Directors, The Board of Directors has approved to use this form in both individual and group for annual evaluation.

The group evaluation form is composed of questions regarding the responsibilities of the Board in five major topics, namely:

1. Structure and the composition of the Board,
2. Roles, duties, and responsibilities of the Board,
3. Directors nomination,
4. Compensation to the directors, and
5. The Board of Directors' meeting and the Board's responsibilities.

For the individual evaluation, the evaluation form assessed the following seven topics:

1. Structure and composition of the Board,
2. Roles, duties and responsibilities of the Board,
3. Ethics and corporate governance,
4. Development of directors,
5. Relationship with the management,
6. The Board of Directors' meeting, and
7. Overall performance of directors.

In 2015, the Corporate Governance and Nomination Committee reported the 2014 evaluation result to the Board of Directors. The Board's performance as a group was deemed to be satisfactory with the score 4.8 out of 5. Each topic received a score in the 'good to excellent'

range (4.6-5.0). For individual evaluation, the 2014 evaluation result showed an average score of 4.7 out of 5. The Board of Directors recognized the results for both group and individual level, then together discussed for any opportunity for improvement.

CEO Performance Assessment

Board of Directors works together with Chief Executive Officer (CEO) to set CEO's Key Performance Indicators (KPI) covering business goals, social and environmental indicators under Corporate Sustainable Development which aligns with Dow Jones Sustainability Index (DJSI). CEO's KPI is set up in February of each year. The CEO's performance is measured against those KPIs, and all directors will evaluate her performance by using the appraisal form designed by Strategy & Business Development Department. The collective result of the CEO's performance is proposed to the Compensation Committee and the Board of Directors respectively.

Sub-Committee

At present, the Board of Directors has appointed 3 Sub-Committees: the Audit Committee, the Compensation Committee and the Corporate Governance and Nomination Committee. The details of each working group are available in Annual Report 2015.

The Audit Committee

The Audit Committee consists of at least 3 independent directors with 1 independent director seated as its chairman. Their roles and responsibilities are to:

- Review the Company's financial reports.
- Assess adequacy of internal control and risk management system as well as related regulatory compliance.
- Select, nominate and propose fees for the external auditor
- Consider the disclosure of company and business

information in case of conflict or redundant transactions and make such contrast into accurate, complete and transparent reports.

- Monitor and review critical risk management policies on a regular basis as reported by the Risk Management Committee.
- Provide suggestion about operating plans, performance results, and budgets, along with the manpower management of the Internal Audit Office.

The Compensation Committee

The Compensation Committee consists of at least 3 directors with 1 independent director seated as its chairman. Their roles and responsibilities are to:

- Suggest compensation policy, guidelines, procedures and other benefits for the members of the Board of Directors, sub-committee members, the CEO and senior management.
- Determine performance measurement criteria and evaluate performance of the CEO and senior management.
- Monitor and review compensation structure, mechanism, and package management for the Board of Directors and senior management. This is to make sure it reflects their roles and responsibilities and complies with the Company's performance and market situation.



The Corporate Governance and Nomination Committee

The Corporate Governance and Nomination Committee consists of at least 3 directors with 1 independent director seated as its chairman. Their roles and responsibilities are to:

- Determine the Company's Corporate Governance policy and the Code of Conduct. Monitor compliance with such code of practices.
- Screen and select personnel eligible to serve as members of the Board of Directors and the CEO upon their term completion or availability. Screen and select other credibility for senior managements positions as requested by the Board of Directors.
- Secure appropriate succession plans for the CEO and other senior managements.

The role and responsibilities of the Board of Directors and Sub-Committees are presented that Banpu has emphasized the importance of good corporate governance principles to lead the company's sustainable growth efficiently and to ensure that all stakeholders' rights are protected and treated properly.

Summary of Board of Directors' and Committees' Meeting Attendance in 2015

Committee	Percentage (%) of Meeting Attendance
The Board of Directors	95.26
The Compensation Committee	100
The Corporate Governance and Nomination Committee	100
The Audit Committee	100

Risk Management

To achieve sustainable growth, Banpu emphasizes the importance of risk management which is the key process contributing to the achievement of business's objectives and goals. Banpu has categorized the business risks into four aspects as strategic risk, financial risk, operational risk and compliance risk, to ensure that all aspects of objectives and goals are covered. Business risk management is under the supervision of all levels of management and the risk management results are reported to the Risk Management Committee, the Audit

Committee and the Board of Directors on a quarterly basis, respectively.

Additionally, the Company has monitored an emerging risk and uncertainty from both internal and external factors, such as potential global economic recession, coal price fluctuation and low carbon & renewable energy trend, to ensure that company have action plans to protect downside impacts to be at acceptable level and to capture the opportunities.

Conflict of Interest

The Company's business policy is based on integrity, transparency, value maximization and being fair to all those involved and not involved in any activities that may pose a conflict of interest. It is already stated in the Code of Conducts that Directors, management and employees are not allowed to exploit information obtained from being in such positions; the director, management or employees of the Company seeking their own benefits.

Anti-Corruption

Since 2009, Banpu and other private sectors joined the campaign to combat corruption led by The Thai Institute of Directors (IOD). Later in 2012, IOD established Private Sector Collective Action Coalition Council (CAC), and acted as a secretary to determine process and procedure for private sector to adopt and ensure organization a corruption-free and the self-evaluation process to use as a guideline for anti-corruption. The Company conducted a self-assessment on our practices towards anti-corruption and presented the result to the Audit Committee, Corporate Governance and Nominating Committee, and the Board of Directors. The Company has received the certification as a member of Thailand's Private Sector Collective Action Against Corruption (CAC) on July 29, 2015. Moreover, the Company has participated in the "Anti-Corruption progress indicator" assessment from the Securities and Exchange Commission. From the assessment in 2014, the Company was ranked in level 2 or 'Declared' level.

In 2015, the company has announced a policy of grievances and the protection of the complainant (Whistleblower Policy) and communicated to all employees.

This Whistleblower Policy, together with the risk assessment on corruption and regulations specified in the Code of Conduct are key mechanism in developing Anti-Corruption Policy.

In declaration of our intention on anti-corruption, we have set forth in Section 3.4 of the Code of Conduct about giving and receiving bribes as follow:

- Executives and staff are prohibited from demanding or receiving any benefit from trading parties, contractors, suppliers, advisors and those with whom the Company is doing business.
- Executives and staff are strictly prohibited from offering any benefit to government officers, customers, labour unions or any other external parties in any attempt to persuade them to commit a fraudulent action.

For the gifts, gratuities and business entertainment, we set forth in Section 3.5 of the Code of Conduct as follows:

- Executives and staff should refrain from giving gifts or

gratuities to, or receiving them from any trading partner or others with whom the Company is doing business. Gifts given or received during festive occasions are excluded from this requirement provided they have an appropriate value and are not related to any business commitment. (The company appoints Gift Committee to determine the type and value of gift for festive seasons such as New Year to be applied across organization as well as followed to the Code of Conduct)

Moreover, the Company adopted the international best practice in regards to the corporate governance principles such as ASEAN Corporate Governance Scorecard from the ASEAN Capital Markets Forum, OECD Principles of Corporate Governance from the Organisation for Economic Co-operation and Development (OECD) to ensure the effectiveness of our corporate governance management. In 2015, the Company was evaluated from the Corporate Governance Report of Thai Listed Companies (CGR) with a 'Very Good' level.

Communication Channels



Banpu has set up communication channels to provide accurate and transparent information on our performance regarding economic, social and environmental issues to stakeholders as well as to receive opinions, concerns, and suggestions. Our various channels can be elaborated as follows:

- Shareholders Annual General Meeting is organized to provide an opportunity for shareholders to lodge their opinions, ask questions and vote to elect the board of Directors.
- Corporate Governance performance is periodically communicated to external and internal stakeholders via annual report.
- Corporate Governance is frequently communicated to employees and executives via varieties of channels, such as internal journal "Banpu Insight" in column 'CG of the Month', via intranet email as CG on the go, and many CG internal events are held regularly, for instance, 'CG Day'.
- Seminars and employee orientations on CG Policy as well as CG refreshment are conducted for both employees and management.
- Stakeholders are provided with channels to voice their complaints to the board via company website and portal. The complaints will be forwarded to the Secretary of the Corporate Governance and Nomination Committee for further action. The complaint management reports are provided to the Corporate Governance and Nomination Committee on quarterly basis and to the Board of Directors on annual basis respectively.
- Sustainable Development Performance is annually communicated through Sustainable Development Report
- Investor Relations department is established to serve as direct communication channel for both domestic and international investors.
- Analyst meeting is organized quarterly to provide operating and business performance results to investors and analysts.
- Company and subsidiaries site visits both in Thailand and oversea countries such as BLCPP power plant, Hongsa power plant, coal mine for shareholders, customers, community members, media and academic institute.

CG Day 2015



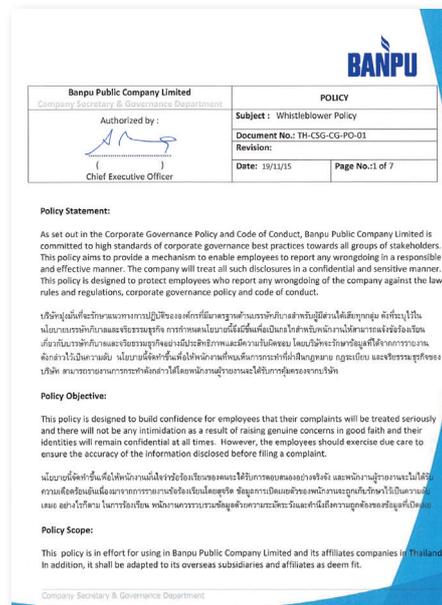
November 3, 2015, Banpu management and employees of Bangkok Office joined the CG Day 2015 which was organized by Company Secretary & Governance Department, aiming to encourage BANPU staff to comply with BANPU's Corporate Governance Policy and Code of Conduct. Ms. Somruedee Chaimongkol, our CEO, presided over the event.

This year, the event was arranged under the theme "CG on the Go" with a focus on communicating CG policy and Code of Conduct both in national and regional level to employees. This event was also aimed to establish common practice throughout the company, which, in return, will strengthen Banpu's reputation in its compliance with good Corporate Governance principles at international standard.

Banpu announced Whistleblowing Policy

Banpu's Whistleblowing Policy has been approved by the Board of Directors and announced by Ms. Somruedee Chaimongkol, CEO, effective 1 December 2015.

This policy has been set as a mechanism to encourage employees to report unethical and illegal actions when they are aware of and in a responsible manner. The company provides protection that the whistleblower will suffer no intimidation and the information received will be kept confidential. The announcement of Whistleblowing Policy ensures employees that the company is serious about adherence to corporate governance best standard and practices for all group of stakeholders as stated in our corporate governance policy and code of conduct.



Banpu received Certification from CAC

July 29, 2015, the Company received the certification as a member of Thailand's Private Sector Collective Action against Corruption (CAC) from the secretariat of CAC.

Thailand's Private Sector Collective Action Against Corruption (CAC) is an initiative by the Thai private sector to take parts in tackling corruption problem via collective action. The CAC aims to bring effective anti-corruption policy and mechanism into implementation by companies in order to create an ecosystem of clean business community.



Participation and Membership



Organization	Status	Role	Country
Thai Listed Companies Association (TLCA)	Chairman of Center for Building Competitive Enterprise	Provide advises for building competitiveness to Thai enterprises.	Thailand
Thai Listed Companies Association (TLCA)	Chief Advisor of the Chairman	Provide advices to the Chairman, raise issues of business sector to the government	Thailand
Federation of Thai Capital Market Organizations (FETCO)	Advisor	Give advices to develop the entire Thailand's capital market	Thailand
Thailand Development Research Institute (TDRI)	Council of Trustees & Board of Directors	Give advices on policy, strategic direction, and management approach	Thailand
The Securities and Exchange Commission	Chairman of the working group for Sustainable Development of Thai Listed Company	Draft sustainable development framework of Thai Listed Company	Thailand
Coal Industry Advisory Board (CIAB)	Member	Serving as expert representative from Thailand of 18 countries worldwide to advise CIAB including to systematize the study plan and research on the production, transportation, trading, utilization, and future direction of coal industry.	France
Coal Services Pty Limited	Board Member	Member of Finance and Investment Committee, Audit and Risk Management Committee, Coals Mines Insurance Board and Mines Rescue Board	Australia
Newcastle Institute of Energy and Resources (NIER)	Director – Governance Board	Meeting	Australia
Mining Competence Board	Board Member	Meeting	Australia



Awards and Recognitions



Company	Award/Recognition	By
Banpu	Member of Dow Jones Sustainability Indices (DJSI)	RobecoSAM
	RobecoSAM Industry Leader in Coal & Consumable Fuels	RobecoSAM
	RobecoSAM Industry Mover in Coal & Consumable Fuels	RobecoSAM
	RobecoSAM Gold Class in Coal & Consumable Fuels	RobecoSAM
	SET Sustainability Award 2015 under the group of companies with market capitalisation between THB 30-100 billion	The Stock Exchange of Thailand
	Investor Relations Awards 2015	The Stock Exchange of Thailand
	Member of Thailand Sustainability Investment 2015	The Stock Exchange of Thailand
	Member of ESG100 Rating	Thaipat Institute
	Top 50 of ASEAN CG Scorecard 2015	Thai Institute of Directors
	Sustainability Report Awards 2015	CSR Club and Thai Listed Companies Association
ITM	The Best CG Performance 2015	Indonesia Institute of Corporate Directorship
	The 2 nd Runner up of the Best Sustainability Report 2015	Indonesian National Center for Sustainability Reporting
	The Most Trusted Companies 2015	Indonesia Institute for Corporate Governance and SWA Magazine





COMPETITIVENESS





Material Issues

- ✔ Performance Management
- ✔ Human Capital Development
- ✔ Corporate Culture "Banpu Spirit"
- ✔ Employee Engagement

With its regional expansion, Banpu is currently one of leading companies in the Asia-Pacific with over 6,000 employees working in 8 countries. Half of employee is based in Indonesia, a third is in Australia, and the remaining in Thailand, China, Mongolia, Singapore, Japan, and Laos.

Integrating people from different cultures and backgrounds together with inculcating Banpu's core values is our key challenge and thus our top priority. Our growth and success to date are based on the effort, dedication and sacrifice of our people. The spirit and quality of our human resources determine our ability to sustain our competitive advantages, maximize shareholder value and deal with future challenges.

To sustain our competitiveness and to ensure that further growth does not destabilize what we have achieved to date, Banpu has developed a professional

human resource management system. The main objectives of which are to ensure a unity of employees with corporate shared values, innovative working environment, and work-life balance.

In order to achieve long-term strategic goal and be ready for new challenges, we invest in our people for their own and the company's success, and engage our people in creating value in line with the social wellbeing, environmental stewardship and economic prosperity of the countries we operate in.

Through the implementation of our "Banpu Spirit" corporate shared values and innovative working environment, we are confident that the motivation, performance and loyalty of Banpu's people will continue to form the backbone of the company's success in the future.

 HR Philosophy



Banpu provides equal opportunity to everyone, regardless of race, nationality, language, or gender. Banpu believes in its vision, its strategic goals, and the strong solidarity of bonding under the "Banpu Spirit", which comprises innovation, integrity, care, and synergy.

Due to the uncertainty of the global economy, Banpu has a sense of obligation to prepare its staff to adopt flexibility, adaptability, mobility, positive creativity and to embrace true professionalism. Alignment with the "Banpu Spirit" and "Dedicated Professionalism" are prime objectives of every member of Banpu staff.

The "Banpu Spirit" means true belief and implementation in accordance with the guidelines, whilst harmoniously practicing our Corporate Governance policy and Business Code of Conduct. In this way, we can all become "Corporate Citizens" of the communities in which we work and serve, regardless of religion, culture, or other local diversity.

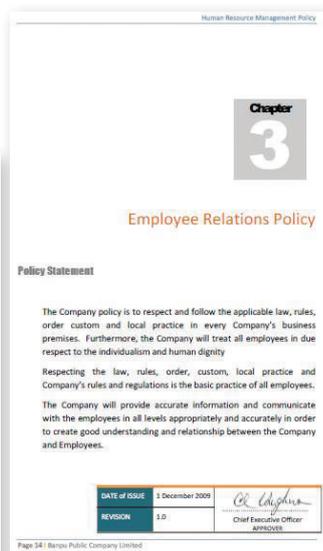
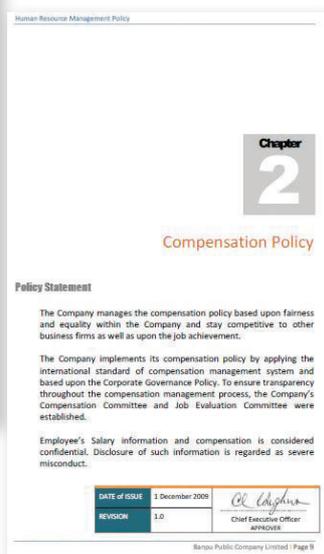
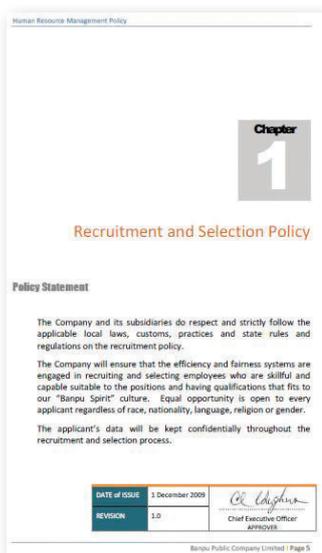
The three principles of human resource management and development are as follows:

-  **Equitability** : Banpu emphasizes on the recruitment of the most capable and competent people and rewards them in a way that is seen as internally fair and externally competitive.
-  **Performance-based** : All staff participate in the performance management system, which entails the setting of agreed business goals, monitoring and evaluating assigned tasks in a way that is intrinsically linked to compensation and annual bonus payments.
-  **Competency-based** : It is our belief that very individual's capability can be developed and enhanced. Banpu provides and supports an opportunity for everyone to maximize their professional growth through On-the-job Training, Coaching, training course, and job rotation. This system is applied to all levels of the company.

In alignment with our HR philosophy and 3 Human Resources Management Principles, we have established 4 HR policies which are Recruitment & Selection Policy, Compensation Policy, Employee Relation Policy, and Training & Development Policy. Besides, Banpu has appointed the Job Evaluation Committee, the Organization Development Committee, the Compensation Committee, and the Corporate Governance and Nomination Committee to ensure transparency and to prepare the human resources of Banpu for sustainable future.

During previous year, the human resources management material issues were specified are:

-  Performance Management
-  Human Capital Development
-  Corporate Culture “Banpu Spirit”
-  Employee Engagement





Performance Management



As Banpu has its base in many countries which are different in workplace circumstance, the human resources management is designed under the Company's direction whereas dynamic business process is adopted in appropriate for every local sites to strengthen effectiveness.

Banpu is driving the company with Matrix Organization approach for effective management process and optimizing our operation in every country. This approach were completed to deeply understand local employee's needs. While the company's policies, standards, practical guidelines and monitoring and performance evaluation were completely achieved efficiently. The importance of Matrix Organization are that Banpu's staffs in all countries be ready to share technical competency

among each other and to develop individual's career capability and to build career development.

To achieve business strategic goal, the target is set and deployed. The Company has set the Key Performance Indicator (KPIs) to monitor and drive an organization toward success and those effective indicators must be fair, standardized and reflect actual performance.



Performance Management System

The Company has established Key Performance Indicator (KPI) that every employee participate in setting up their own action plan and goals which are adhere to corporate annual plan and strategy. The employee's assignment must be aligned by their KPIs and be evaluated twice a year. The Management is the key mechanism to deploy corporate KPIs to all employee levels.

There are two type of KPI as "Work related KPI" and "Behavior Based KPI", which evaluated the employee' behavior through corporate share value "Banpu Spirit".

Each year, the ratio between two types of KPI is reviewed and adjusted to be in line with corporate strategy. In 2015, the work related KPI was weight 70% and the rest 30% was Behavior Based KPI.

For work related KPI, the standard of performance evaluation is set and implemented across all organization. Each work related KPI must hold at least one of the following criteria:

1. Quantity
2. Progress and Time
3. Cost
4. Accuracy and Quality

Furthermore, in order to encourage supervisor to improve the management of their subordinates and working motivation in workplace, the Company established the Leadership KPI to evaluate manager level and above on their people management and workplace motivation skills. A manager must realize that apart from focusing at the result, he has to pay attention to his subordinates as this will be one of the major factor to improve performance of the unit.

To strengthen effectiveness of the performance management system, the aforementioned improvements were clearly communicated to the employees since the beginning through the orientation and refreshment was done regularly.

Compensation Management System



The Company emphasis on the compensation and rewarding to employees based on their performance. Banpu has set up policy of compensation on fairness and market competitiveness basis. The Compensation Management System is complied with international standard. In addition, the Compensation Committee and the Job Evaluation Committee were setup to ensure transparency of compensation process.

The Company has established the compensation based on job grade which includes job description and competency. It comprises of job analysis, job function and responsibility, job evaluation and job position. The Company's wage structure is competitive compared with the market. For competitiveness, the Company has conducted the wage survey comparing to leading companies, including frequently determined of consumer price index and economic impact that affected employees.

However, the salary and promotion for each employee would be considered periodically based on their performance and competency. In addition, the variable bonus has be provided according to company performance in each year.

Retirement Program

Banpu realizes that it is nature of our coal business that coal reserve will decrease when starting operation. Even we adopted new technology in order to increase quality of remaining coal reserve. In consequence, one of measures that we emphasize is retirement program, which is introduced to mining staff during mine closure stage.

According to our Mine Closure Plan, staffs working in a mine that will be closed will be transferred to another

company's mine sites in the nearby area. Moreover, we also provide training course of how to be an entrepreneur for mining staffs prior to post mining period. Examples of the topics are financial management, business plan management, and change management. Furthermore, we contribute to cottage industry, for example, snack producing, integrated farming, and fishery, with the aim that staffs can be self-reliant after mine closed.

Retirement Plan after Mine Closure at Kitadin Tandung Mayang Mine

Kitadin Tandung Mayang enters mine closure phase in the late of 2015, one of measures that we contribute to 368 mining staffs is communication on options and guidelines after mine closure.

In the middle of 2015, we organized communication session on downsizing to mining staffs. They could choose to transfer to Trust Company Limited, one of Banpu's subsidiaries who conducts operational

activities surrounding to Indominco mine site. Providing that mining staffs who do not decide to transfer to Trust Company Limited., we inform the process and offer rights and compensation to those staffs after mine closure. However, we also support for training course to mining staffs on small business entrepreneur for cottage industry, such as homemade bread and integrated farming.





Human Capital Development

Training and Development are the key to increase employee's competency and to drive company's goal. The Company has been implementing the policy to allocate the budgets for employee development in every countries at least 5% of the salary budget. The training and development plan are based on Banpu Learning and Development Framework. The framework enables employees at all levels and emphasis the Competency Management System. This frameworks are also provided

Training Roadmap for employee through practical training, E-learning, Management Sharing, On the job training and Coaching.

In addition, to encourage supervisor to train their subordinates consistently. The Company provides learning by doing to all employees, including experiences sharing from the executive management.

Succession Planning System

For the continuity of our business, succession plan has been established for key and critical positions to prepare its employees to be ready for new career paths or higher position and thus support business growth.

The Board of Directors has appointed the Succession Plan Committee to overview succession planning system. Their roles and responsibilities are to:

- 👤 set up key and critical positions.
- 👤 set up key and critical position profile and identification and selection criteria.
- 👤 identify and select the potential successors incorporated with Human Resources department.
- 👤 create and review of those successor's Individual Development Plan (IDP).
- 👤 monitor and evaluate the successor's potential.

Career Development System

The Company provides career development system to support its employees at all levels to plan their future career, both within and across their lines of work. This system is a tool to forecast the potential career transfer probability which its employee to identify required competencies, to evaluate employee's competency by supervisor with employee's agreement, and to create Individual Development Plan (IDP) for employee's future career.

Moreover, the Career Development System is integrated into human resources management such as promotion proposal. The Company is under improvement of career development standard of all subsidiaries, in order to provide an opportunity for employees to be promoted across functions and to increase its employee's competitiveness in human resources management and development.

Competency Profile & Individual Development Plan

The Company provides the assessment of required competencies for all job positions which comprises of 2 types: Leadership Competency and Functional Competency. In every year, both of employee and supervisor have coordinated to conduct the competency assessment in order to obtain the competency profile. Then, the profile is compared to employee's required competency to develop Individual Development Plan (IDP). Also, the Company provides performance monitoring system for competency assessment to be used for career development plan.

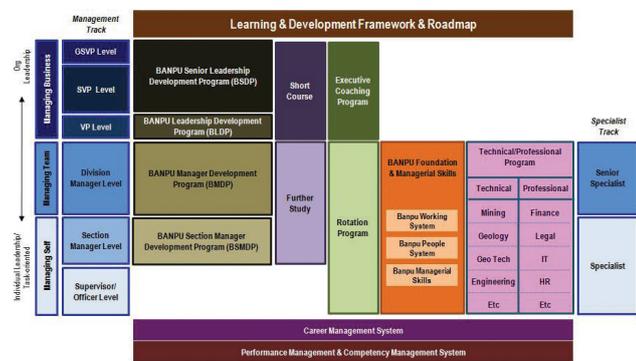
In previous year, our senior management has reviewed Leadership Competency to be complied with new corporate strategy and to be ready for future change and business challenges. From 2016, new Leadership Competency will be implemented.



Training Roadmap

The Company has set annual Training Roadmap in advance for every employee levels. It is divided into senior management level which focuses on leadership and entrepreneur skill, and junior management level development plan which focuses on professional and team building skill. Whereas professional and operational level development plan will be focus continually on technical knowledge and individual development.

This Training Roadmap was designed with the concept of working system, people system, and managerial skill to emphasis on the development of Leadership Competency and Functional Competency. To encourage employees at all levels to be professional and to have leadership skill. The Company also provides outside training and inside training by internal trainer such as Basic Contractual Knowledge conducted by Company's Legal Department etc.



The Company also provide employee's training course to be ready for changes and to promote leadership from staff level to management level which called Banpu Leadership Development Program, scholarship program in leading academic institution both domestic and aboard, short term course and higher education program.

Furthermore, the Company emphasis on employee's performance and motivation to improve working environment for better performance. This motivation are from self motivation, value creation to client and shareholders, and giving to society etc.,. The managements will be the role-model for initiating motivation, coaching, etc. for employees.

During an uncertainty of the global coal market, the Company continued to prepare its people to be ready for change which crucial for driving organization.

BANPU Leadership Program

To strengthen the executive's competency continually, the Company has been arranged BANPU Leadership Development Program (BLDP) since 2006 for executive of Vice President Level. Later in 2009, BANPU Senior Leadership Program (BSDP) was provided for executive of Senior Vice President Level and up, BANPU Manager Development Program (BMDP) for Division Manager Level; furthermore, in 2013 the Company set up BANPU Section Manager Development Program (BSMDP) for Section Manager Level to develop leadership of all staff levels. The results of each training program in this year are shown in the table below;



Program	Level	Progress
BANPU Senior Leadership Development Program (BSDP)	Senior Vice President Level and up	23 staffs
BANPU Leadership Development Program (BLDP)	Vice President Level	65 staffs
BANPU Manager Development Program (BMDP)	Division Manager Level	113 staffs
BANPU Section Manager Development Program (BSMDP)	Section Manager Level	92 staffs

In 2015, the Company's executives have participated in outside training as follows;

-  2 executives participated in TLCA Leadership Development Program; Enhancing the Competitiveness of Thai Companies; hosted by Thai Listed Companies Association.
-  1 executive participated in Executive Development Program hosted by Thai Listed Companies Association.
-  1 executive participated in Berkeley Executive Coaching Institute (BECI) Certificate.

To ensure that our people will gather their potentials in line with Company's strategy, the Company has improved BANPU Leadership Competency and has integrated development assessment result into this improvement.



Education Enhancement

To strengthen our Human Resources; especially for critical position, the Company has supported the scholarship for students of Mining Engineering, geology, geo-technology. The Company also supports for internship that trainee will experience in actual mine site. This supports has indirectly helped the country to develop education standard and encourage students' experiences.

Employees' Rights & Welfare Protection

Primarily, the Company has established Human Rights policy in respect to International Human rights; relevant law, regulations and local tradition in every areas of its operation sites, including respect in individuality and dignity of human being. Moreover, the Company has provided proper information and communication channel

to employee at all levels. From the strong relationship between Company and employees through those channels, including establishment of labor union, there was no any complaints and strikes occurred in this year.

Prevention of Child Labor and Forced or Compulsory Labor

The Company focuses on the prevention of child labor and forced or compulsory labor. For child labor, the Company clearly define the required age of the candidate that must be over the age of child labor as stated in the related regulations. This is in accordance with the laws of each country where the company has operations. For forced labor, it is stated clearly in the Recruitment & Selection Policy to have a fair contract between the Company and candidate.

BANPU Engaging Leader

Banpu Engaging Leader is the employee development program designed to develop roles of leaders, which has rearranged in 2015 for Division Manager Level and up. The program aims to strengthen engaging leaders. The Company places the importance on that leaders who help employees around them and be a role model, it is a program designed to strengthen people management skill, e.g. how to coach, motivate and inspire. In 2015, there were 25 executives participated in this program who will obtain the skill to build trust and a positive mindset among employees as well as to increase staffs' competitiveness.



BANPU Leadership Development Program (BLDP)

In 2015, the Company has arranged leadership development program for Vice President level, called BANPU Leadership Development Program (BLDP). There were 17 executives from 6 countries; Australia, Indonesia, Mongolia, China, Singapore and Thailand. This program is designed not only for Management skill development but also an opportunity for executive in different counties to get to know each other and to share their working experiences, culture and workplace circumstance.



Corporate Culture “Banpu Spirit”

Corporate Shared Values or “Banpu Spirit” is our pathway belief in workplace and harmony since 2004 which are comprises of follows;



BANPU *spirit*

Innovation

Banpu people aim for continual improvement. We seek wisdom, take the initiative and are proactive. We are flexible and adaptive to change. We aim to think ‘out of the box’ and to think ahead. Banpu people confront new challenges with courage. Through these approaches, Banpu people create an environment and culture of ‘Innovation’.

Integrity

Banpu people behave in an ethical, honest and transparent manner. We are trustworthy, and honor commitments. We are disciplined and persistent. In other words, We have ‘Integrity’.

Care

Banpu people are open, humane, warm and friendly. We are respectful and empathetic with one another, and extend the same consideration to stakeholders and external parties.

Synergy

Banpu people strive for ‘win-win’ solutions. We seek collaboration and teamwork. We are fair. We develop strong networks. In good spirit, We seek ‘synergy’ in all that we do.

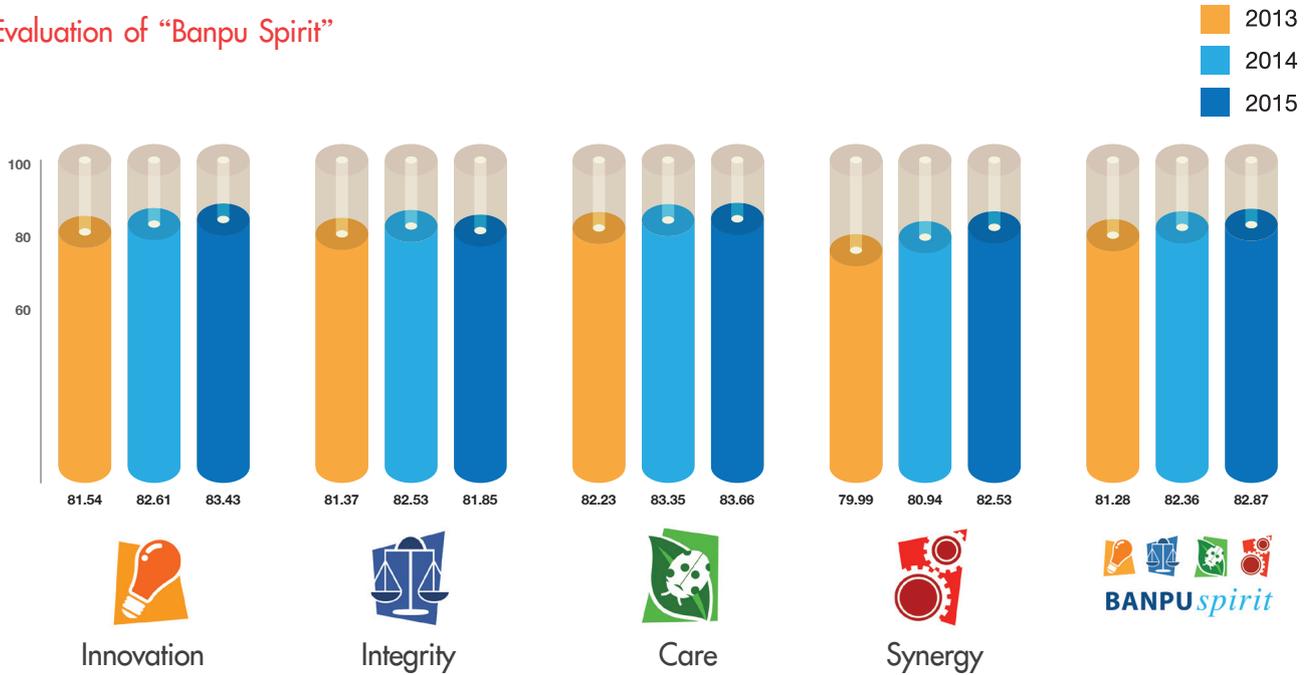
The Company believes that with corporate culture, “Banpu Spirit”, employees at all sites are able to harmonize their work without discrimination of gender, nationality and religious, have attitude in optimizing with commitment to Company’s goal.

The Company deployed Banpu Spirit into varieties of activities such as follows;

-  Establish BANPU Change Leader (BCL) to promote activities for all employee level, and all BCL are volunteered from employees who adhere to Banpu Spirit.
-  Create Inner View Test to be used for recruitment process in order to specify candidate’s habit and behavior that highly committed to “Banpu Spirit”. After conducted Inner View Test, the Company will verify candidate by Behavioral-Based Interview to ensure the right behavior required for the job.
-  Conduct Banpu Spirit orientation and Banpu Spirit in Action Activities to communicate background, objective, how to integrate into Banpu Spirit workplace as well as experiences sharing by employees.
-  Integrate Banpu Spirit into one criteria of Key Performance Indicators as aiming that employee will behave in their actual work.
-  Provide varieties of Banpu Spirit activities for employee’s participation such as, Banpu Spirit in Practice by Top Management, Monthly Lunch Sharing, and Banpu Spirit Outing etc.,.
-  Conduct annually Banpu Spirit engagement survey in Thailand, Indonesia, China, and Mongolia to strengthen our Corporate Culture Banpu Spirit and to communicate Banpu Spirit Activities outcome.

In 2015, the Company has continually improved the quality of its survey result by conducting a survey by the third party. As a result, the Banpu Spirit score increased consistently with Synergy as the highest improvement element.

Evaluation of “Banpu Spirit”



BANPU Spirit in Mongolia

To promote and encourage BANPU Spirit in other Banpu’s subsidiaries, in 2015, the Company has hold the BANPU Spirit Activities in Mongolia for the first time. We arranged a BANPU Expression in Mongolia in coordination with Thailand’s executives and Mongolia’s executive.

There were more than 100 Mongolian staffs from both Ulan Bator office and mine sites. The activity started with opening speech by CEO, followed by journey of Banpu Spirit. Moreover, there was also an announcement of new 28 BANPU Spirit Change Leaders (BCLs) at Mongolia.



BANPU Spirit Change Leader (BCL)

Corporate Culture is a set of concepts or an ideology resulting from the shared ideas and attitudes which are used as a behavioral guideline or standard for members in the organization to follow, work together with mutual understanding. Banpu acknowledges that these shared ideas and behavioral guideline are integral to creating sustainable growth for its organization and for Banpu to be a leading company in Asia and maintain credibility with all stakeholders.

The driving forces of Banpu's corporate culture are not only the executive officers, but also the leaders and all employees who collaboratively work in teams to create, encourage and strengthen the shared valued. Banpu Spirit Change Leader or BCL is a group of staff who is passionate and believes in Banpu Spirit. They volunteer to promote Banpu Spirit throughout many activities. In 2015, we have 23 BCLs who volunteered themselves and were selected by the Chief Executive Officer. They will be in the role for 2 years from January 1, 2015 to December 21, 2016. Candidates for BCLs are required to be Banpu employee with more than 1 year of working experience.

Main duties and responsibilities of a BCL are as follows;

- ✔ Support and encourage Banpu Spirit behavior among employees
- ✔ Be a role mole and understand what Banpu Spirit means
- ✔ Plan annual Banpu Spirit activities based on the results of the BANPU Spirit Survey
- ✔ Carry out Banpu Spirit activities as planned

In 2015, Banpu Spirit activities at Bangkok office are as follows;

- ✔ BANPU Spirit Award
- ✔ SHAE SHARE SHOW
- ✔ Introduce New Employee
- ✔ BANPU Spirit Outing
- ✔ SAB YOK KRUA
- ✔ BANPU Happy Family: We Care
- ✔ Generation Gap





Employee Engagement

Banpu places a great emphasis on employee engagement because many research and surveys confirmed that it plays a significant role in increasing a company's competitiveness, growth, stability and sustainability as well as total shareholder return.

For this reason, Banpu gives top priority to the "human resources selection" process, from recruitment to selection, to ensure that the Company hires highly committed personnel from the start. This is conducted via competency-based interview to identify the right competencies for the job. Moreover, candidates undergo a behavioral test to make certain that new employees embrace the core values of "Banpu Spirit". This way, by the time an employee joins Banpu family, he or she already possesses knowledge and skills that the Company requires and can quickly adjust to the new environment. This, in turn, leads to maximum productivity, career success, and a high level of employee engagement.

Another factor contributing to employee engagement building is the role of managers and leadership. Managers not only play a crucial part in moving the Company towards its future goals, but they are also considered as role models at both professional and personal levels. Hence, in 2011, Banpu conducted a '360 Degree Feedback Survey' amongst its senior management. The results of this program are truly beneficial to creating mutual understanding among Banpu's management. The information obtained is also used to design group and individual development plans for our senior executives, to ensure that the Company continues to grow in a sustainable manner.

All levels of management work together in improving employee engagement. It is the managers' role to work closely with their subordinates to help them set clear goals, to review their performances, to constantly give them direct and constructive feedback, and to encourage

knowledge and skills development. Banpu has offered intensive manager development training, focusing on good leadership and team management; and will continue with this focus for the years to come.

Since 2012, "Employee Engagement Survey" were conducted by third party to collect employee's opinion. Information from the surveys is used to further develop and improve the Company's human resources management systems, enhance BANPU Spirit, and improve employee engagement level. In 2015, the average score of employee engagement survey result was higher than other similar industrial companies and was higher than last year score significantly. The Company aims to maintain those engagement and to develop for better outcome.

Work-life balance is also a topic of interest at Banpu. In addition to the Work@Home program introduced in 2009, the Company launched a flexible working time system at our Bangkok office in 2011, allowing employees the ability to manage their own daily working hours appropriately and efficiently in line with family or personal commitments. There are five schedules of working hours, by having eight working hours per day as follows:

1. Work schedule 1 is from 7:30 a.m. to 4:30 p.m.
2. Work schedule 2 is from 8:00 a.m. to 5:00 p.m.
3. Work schedule 3 is from 8:30 a.m. to 5:30 p.m.
4. Work schedule 4 is from 9:00 a.m. to 6:00 p.m.
5. Work schedule 5 is from 9:30 a.m. to 6:30 p.m.

In all, Banpu is committed to enhancing the development of its employees and their capabilities, preparing them for any challenges the business may face in the future and in so doing ensuring contentment and satisfaction in their chosen career paths.



Participation and Membership



Organization	Status	Role	Country
Human Capital Management Club	Committee	Meeting and submission	Thailand
HR Power Network	Member	Meeting and submission	Thailand
Indonesia HR Meeting	Member	Meeting and submission	Indonesia
HR Association	Member	Meeting and submission	China
Hunter TAFE Foundation	Director	Drive policy	Australia
Hunter Institute Advisory Council	Industry Representative	Meeting and submission	Australia
Australian Association of Graduate Employers (AAGE)	Member	Meeting and submission	Australia
Australian Institute of Management (AIM)	Member	Meeting and submission	Australia
NSW Minerals Council - Women in Mining	Member	Meeting and submission	Australia

Awards and Recognitions



Site	Award/Recognition	By
Zhengding Power Plant	Most Harmonious Work Relations Enterprises	Hebei Department of Human Resources and Social Security





OPERATIONAL EXCELLENCE

Material Issues

Operational Management

Technology Development



Banpu has woven sustainable development into its path for future business growth. As it is our priority to create balance between the business growth and the development of community, society and environment, the Company's strategies, therefore, stressed upon value creation for all stakeholder which is not just increase production capacity, but also develop capability towards excellence. This is done by optimizing resource utilization to the most efficient and effective with goal to increase our competitiveness.

In practice, the Company is aware that business value adding from the existing assets is very important. We aim to achieve it by means of increasing capacity through new technology or production process such as, a better accuracy of exploration drilling data and managing costs efficiently by an excellence process management.

To enhance competitiveness of the company, Banpu and our stakeholders focused on the following key issues;

Operational Management

Technology Development





Operational Management

Concerning our risk matrix, one of the key risks was the increase of operating cost from both external factor which is beyond our control and internal factor such as operational management.

Optimizing operational processes to their greatest efficiency and thereby increasing productivity performance is a critical factor in managing our operations. Since our operations are located in various locations with different mining technique, approaches we used are different from one to another.



Operational Management in Indonesia

In Indonesia, the company has deployed the Total Productive Maintenance (TPM³) which is the system emphasizing on continuous improvement to reduce production cost and production inefficiency as well as the loss from machinery.

started at Kitadin-Tandung Mayang and Indominco Mines, then, at Trubaindo mine in 2014. In 2014, Kitadin-Tandung Mayang and Indominco mines achieved 5th and 4th Level of TPM³ Excellence Award respectively.

The TPM³ approach is an enhanced version of Lean developed by CTPM, a continuous improvement specialists based in Australia, which integrated the original Lean concept and TPM methodology. This approach involves the engagement from all of people on site to find problems at the earliest time and follow the structured process to identify the root causes. There are 5-level milestone of TPM³ Excellence Award.

Since the commencement of TPM implementation in 2006, the site achieved great success in improving its operational efficiency for example, at Kitadin-Tandung Mayang mine, a 1% reduction of fuel consumption for heavy equipment while the production rate was 18% increased. Moreover, the sites have showed significantly improvement in following aspects:

The Company commenced TPM³ implementation at LP2 mine in Thailand and achieved the 5th Level of TPM³ Excellence Award in 2007. With an outstanding outcome, we extended the implementation to cover operations in Indonesia since 2008. The implementation in Indonesia

-  Sustainability: Continuous improvement is an ongoing effort to improve products, services, and processes.
-  Consistency: Everyone is striving for the same goals using a standardized approach.
-  People Development Driven: Everyone is involved in a cross-functional and area based team.

ITM receives ICQCC Gold Medals for Three Consecutive Years

Quality Control Circle (QCC) team of ITM - internally known as KOMPAK has been awarded a gold medal for three consecutive years from International Convention on Quality Control Circles (ICQCC) on October 2015 in South Korea.

In the convention, there are representatives from 13 countries, consisting of Taiwan, Japan, South Korea, China, Hong Kong, Singapore, Thailand, Philippines, Malaysia, India, Indonesia, Sri Lanka, and Bangladesh. KOMPAK team from ITM received an official invitation from Indonesia's Quality Management Association to be Indonesian representative.

There are two steps; project presentation and face-to-face interview by the judges for the teams to present project implementation process, improvement plan and outcome. Finally, five KOMPAK teams awarded gold medals as following details:

-  Tripper Car from Indominco Mine
-  Borneo II from Kitadin-Embalut Mine
-  Anuqu from Trubaindo Mine
-  Fly Wheel from Trubaindo Mine
-  Mind Genesis from Kitadin-Embalut Mine

ITM started its quality control circle in 2006 under named "Small Group Activity", whose name later changed to "KOMPAK" in 2009. ITM achieved to develop its staffs to systematically applied problem solving techniques for root cause analysis. That leads to create new innovation and be accepted internally.



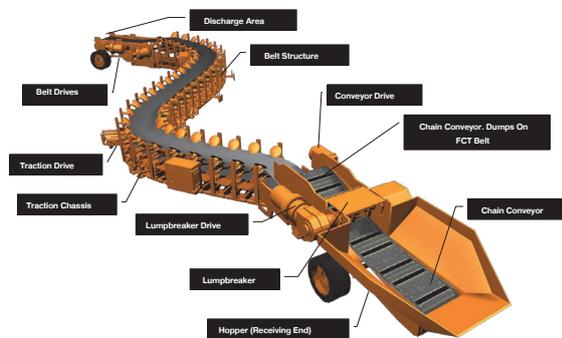
Process Improvement at Clarence

Located in New South Wales near Lithgow in the Western Coalfields, Clarence is a board and pillar mine producing up to 3 million tonnes per annum and predominately exports thermal coal through Port Kembla at Wollongong. Mining at Clarence commenced in 1980 and with over 240 employees has a further 30 year mine life.

In 2015, Clarence mine hit a production record of 2.5 million tonnes for the year while also being the highest producing 'Board and Pillar' mine in Australia. This performance is a result of long term planning projected to push toward 3 million tonnes for the year. A key contributor to Clarence's success was the introduction in 2011 of the 'Flexible Conveyor Train' (FCT) technology.

By eliminating the use of shuttle cars, FCT was introduced as continuous haulage system after several years of investigation and studies. While the introduction of the FCT at Clarence delivered significant productivity gains by removing production bottlenecks. Moreover, there are fewer hazards associated with mobile equipment in the underground environment.

In 2015, it was the first time a FCT had been completely assembled above ground. The performance of this new revision of FCT has substantially increased with computerisation and automation capability, including the radio remote control. As a result of using FCT, a cutting rate per hour was 13% improvement.



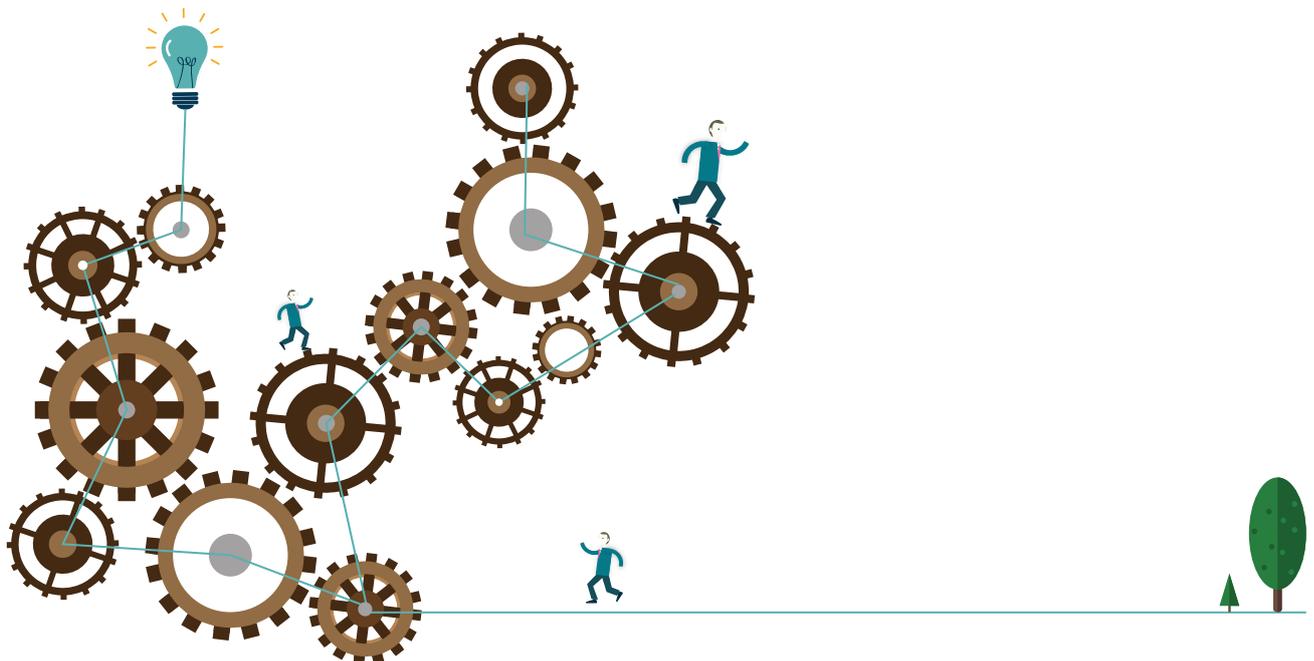
Change Management

It cannot be denied that, there are times that the organization pursues transformations and changes such as moving from good to great performance, cutting costs or meeting up with changing technology. The common factor for achieving the intended outcomes of the change is 'people'. The 'Change' impacts how individual people do their work, their processes, job roles, workflows, reporting structures, behaviors and even their identity within the organization. Change management is the approach to drive adoption and usage so initiatives or changes deliver expected results and outcomes.

In Banpu, the Change management guideline has been put into practice since 2013. It provides framework, tools and techniques to ensure the smooth transition of new business process and sustain the change. The framework talks generally about 4 key factors as follows:

1. Stakeholder analysis
2. Sponsorship
3. Communication
4. Change readiness

With the use of change management for the ongoing project, such as Shipment Demand Pull and IPCC, the project resulted in a success which lead to the effective operational management.



TO-BE IPCC S14 PROCESS

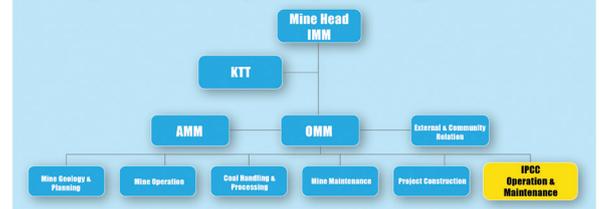
IN-PIT CRUSHING and CONVEYING

How IPCC S14 works

In-Pit Crushing and Conveying (IPCC) is an alternative, or complement to, the use of off-highway trucks for the transportation of overburden between an open pit mining face and a specified material destination



Making new investments in implementing IPCC technology with additional staffs



For more information
Please feel free to contact : Pak Belly Martin
e-mail : belly_m@banpuindo.co.id



Technology Development

In addition to the aforementioned process improvement programs, Banpu has also emphasized on applying state-of-the-art technology in our production process to leapfrog towards Operational Excellence.

Technology Development in Indonesia

ITM, our subsidiary in Indonesia success in adopting the use of mathematical model to optimize the process across the entire ITM's supply chain, from coal stock yard until delivery to customers. This project called Shipment Demand Pull project (SDP). With the deployment of integrated production plan in every mine, the quality control and mine planning were more precise.

In 2014, ITM succeeded in concreting the Shipment Demand Pull project. The implementation was done through the optimization system to ensure that the production was effectively planned in accordance with

the customer's requirements. With such approach, ITM can meet customer's requirement in both quality and quantity. The benefits also include the reduction in demurrage charge and other penalty.

In addition, the SDP also provides the monitoring system of coal production and coal transportation to ensure the effectiveness of internal communication. In the recent years, SDP plays a key role in building the cooperation among production and sales departments to cope with any problems raised, such as fluctuation of the coal price.

Technology Development in Australia

In Australia, due to the different of the supply chain from Indonesia, coal produced from the underground mine will be transported from the mine by the conveyor before being transferred to the train, then to the port to export to oversea customers. Some of those are delivered directly to domestic customers. The rail and coal loading facility has been used since the mid seventies with limitation in the operation.

Centennial, our subsidiary in Australia, has project to improve the coal loading facilities. In 2013, the Lidsdale Siding upgrade project was approved. Lidsdale Siding

is the facility where coal is transported, via a dedicated overland conveyor, for processing and loading onto trains for transport to Port Kembla for export. As a result, the capacity was improved from 2 to 6.3 million tonnes per annum (mtpa), together with the better environmental performance and increasing of Centennial's future market flexibility.

In 2015, the significant process improvement projects included the mine roof bolt improvement at Airly, the Face Alignment System at Springvale, and the District Cooling System at Zhengding.

District Cooling System in Zhengding Power Plant

Zhengding Power Plant is a combined heat power plant, located in China, its main product is electricity and heat; The electricity transmitted directly to national grid which was operated by the government and the heat is distributed in the forms of steam and hot water for industrial and household customers by pipelines.

Zhengding managed effectively to increase competitiveness. Generally, in winter, demand for steam is high, whereas in summer is quite low. The innovation which derived from our employees, called District Cooling System (DCS) is to develop new business to increase power plant revenue during summer time.

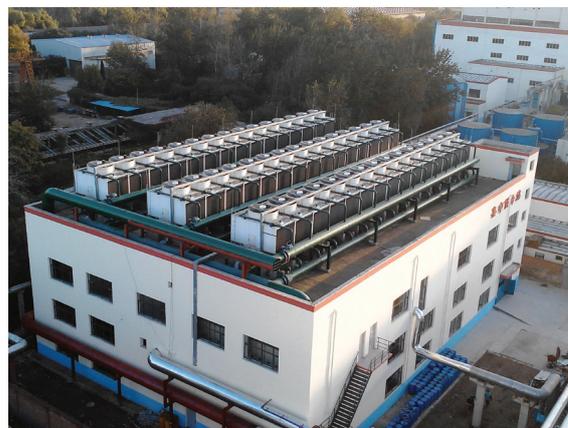
District Cooling System is used the broadly similar principle to central heating. Cooling unit was designed to generate cooling water and to distribute it through an insulated pipeline. At the end of pipeline, the District Cooling System delivers 8°C water to transfer heat with air, then release cooling as same as air conditioning system.

Zhengding is the first power plant of Banpu that was successful in DCS business development. DCS project feasibility was founded that during

2015, DCS has influenced to save energy and prevent environment. Due to DCS consumed less power, as well as using friendly environmental refrigerants than the traditional air conditioners. At present, the customers of DCS are hotel, supermarket, hospital and houses.

Project Basic Information

Steam Consumption	34,284 GJ
Additional Power Generation	1,142,800 kWh
Power Generation Earning	219,303 RMB
Cooling Energy Sales	36,283 GJ
Cooling Revenue	1,809,399 RMB



Face Alignment System at Springvale

Springvale is an underground longwall coal mine. Traditionally, the longwall faces at Springvale have been straightened using the stringline method. This was very time consuming and could also be very inaccurate as the stringline was being constantly moved by the advancing shields. It also involved manual input from the crew members.



In 2015, the Face Alignment System (FAS) was firstly introduced. The primary function of the FAS is to determine the straightness of the longwall face and provide an automated straightening tool. With integration to the production planning system, the time spent in preparing the area was significantly reduced which lead to the higher production rate. Moreover, with implementation of this system, wear rates on all equipments and operator's hazards were also reduced.

Innovation Program

The Innovation concept of Banpu is that we “Think” to adapt change in work process for higher effectiveness, and “Drive” to moving forward. Innovation is a pillar of our business operation with a strong belief that would create our sustainable and stable growth under industry changes. As it can be seen that Innovation is established as one of our corporate culture, “Banpu Spirit”.

We place the importance of innovation encouragement through all activity levels, ranged from operational to executive level in order to enhance the significance and necessity of integrating innovation in both their working and day-to-day life. Since 2008, Banpu has formally implemented the innovation activities with different approach in each country where we operate. For example, Thailand Innovation Award in Thailand, KOMPAK in Indonesia, Innovation Sharing Day in China, etc.

At Bangkok office, innovation activities consist of 2 main programs which are Wow Ideas and Thailand Innovation Award. The objective of this activities are to promote the employees to initiate and to think creatively by coming up with concepts for improving the efficiency of



operation process. Employees have to submit these new ideas to judgment committee who award the prizes. In 2015, employees presented 162 ideas with 92 of this numbers which, the executives considered feasible and which the company should both support and implement as well as there are 19 projects in Innovation Programs.

Innovation has been promoted as corporate agenda across the group in 2008. The Banpu Innovation Convention is organized to recognize all innovation award winning teams from each country and also a sharing session of their success in creating improved organizational outcomes through innovative idea. The honorary judges are CEO and Senior Managements. Banpu Innovation Convention is taken place annually. In 2015, there were 10 teams from Thailand, Indonesia, China, and Australia who contribute value creation to the Company in total of USD 239,819,500.

	2014	2015
Number of Innovation Award Projects	9	10
Total Value Creation (USD)	129,199,298	239,819,500

2015 Banpu Innovation Convention

On March 11, 2015, Banpu Innovation Convention took place in Bangkok to continue the success of this program as well as to promote knowledge and experiences sharing among Banpu subsidiaries. Indeed, we have a strong belief that innovation is one of Banpu Spirit Value and implement it with continually working effectiveness as well as to be ready for change in world business.

In 2015, there were 116 participants, including presenters and senior management, joined Innovation Convention with the theme of "Creativity, Innovation and Change". 10 teams from Thailand, Indonesia, and China, including one invited team from Australia shared their initiatives.

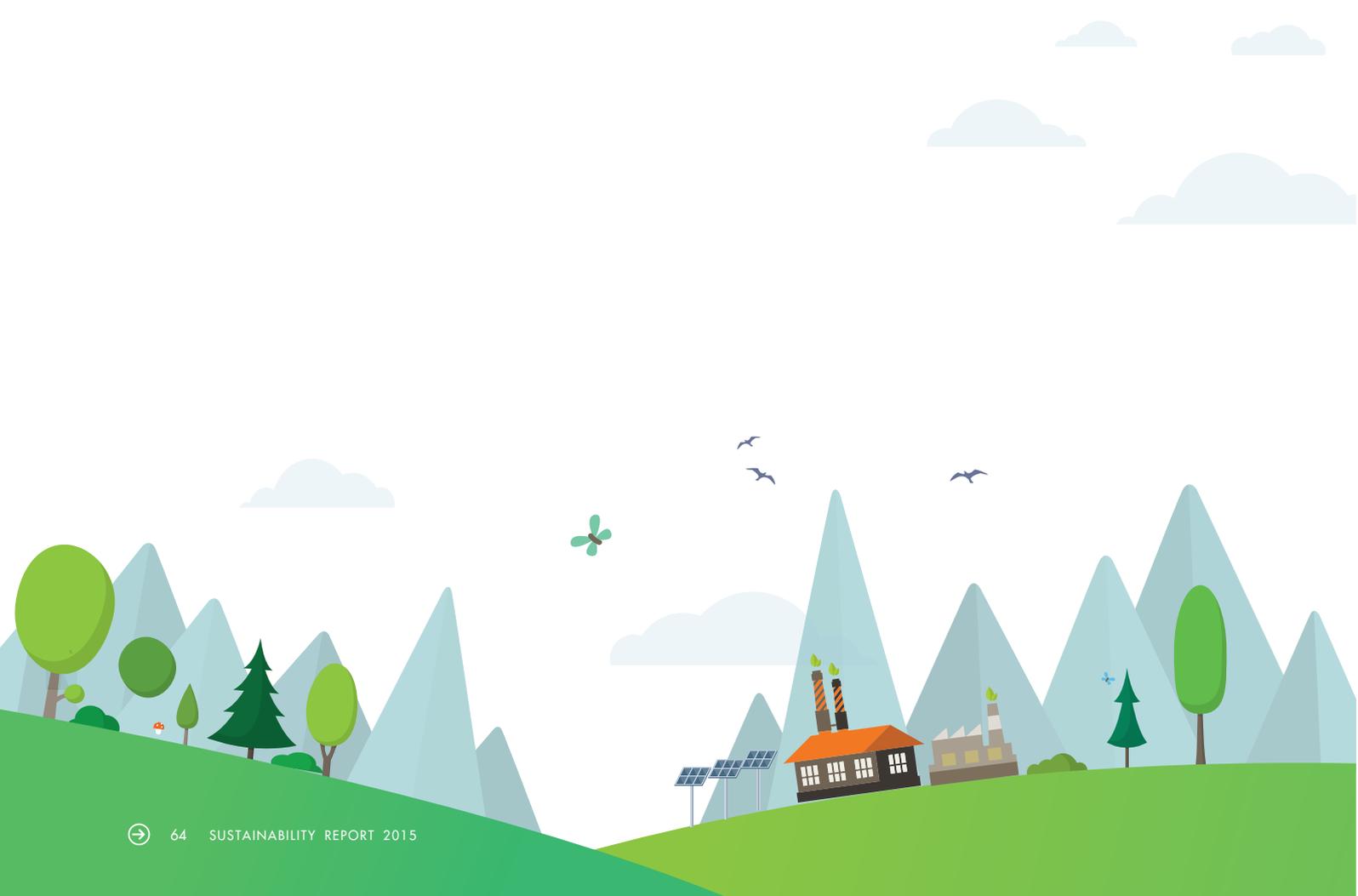
The assessment criteria was designed to drive Banpu performance in 6 areas comprising of Value Creation, Adaptation, Affordability, Learning and Development, Banpu Spirit, and Presentation Skill. The Innovation award winner of 2015 was the team from Zouping Power Plant.



Participation and Membership



Organization	Status	Role	Country
CTPM Australasia	Member	Meeting and submission	Australia
NSW Freight Advisory Council	Member	Meeting and submission	Australia
Newcastle Coal Infrastructure Group (NCIG)	Director	Meeting and submission	Australia
NCIG Holdings Pty Limited	Director	Meeting and submission	Australia
Port Kembla Coal Terminal Limited	Director	Meeting and submission	Australia
Engineers Australia Organisation	Member	Meeting and submission	Australia
Mine Managers Association of Australia	Vice-President	Meeting	Australia
Chinese water conservancy and Electric Power Quality Management Association	Member	Meeting and submission	China



Awards and Recognitions



Site	Award/Recognition	By
Luannan Power Plant	3in1 Quality Safety Environmental Management System certifications	The International Certification Network: IQNET and China Quality Certification Center: CQC
Zhengding Power Plant	3in1 Quality Safety Environmental Management System certifications	The International Certification Network: IQNET and China Quality Certification Center: CQC
Zouping Power Plant	3in1 Quality Safety Environmental Management System certifications	The International Certification Network: IQNET and China Quality Certification Center: CQC
Bharinto Mine	ISO 9001:2008	BSI Indonesia
Indominco Mine	ISO 9001:2008	SGS United Kingdom
	Gold Award	International Convention on Quality Concept Circle (ICQCC)
Jorong Mine	ISO 9001:2008	SGS United Kingdom
Kitadin-Embalut Mine	Gold Award	International Convention on Quality Concept Circle (ICQCC)
Kitadin-Tandug Mayang Mine	Gold Award	International Convention on Quality Concept Circle (ICQCC)
Turbaindo Mine	ISO 9001:2008	SAI GLOBAL
	Gold Award	International Convention on Quality Concept Circle (ICQCC)
Newstan Mine	Highly Commended for Clean Water Plant and Water Management Scheme	Engineers Australia Newcastle Division Engineering Excellence Awards





VALUE CREATION

TO STAKEHOLDERS



COMPLIANCE

Besides the excellent strategic planning and employees' commitment which are a crucial part for every organization continued success and sustainable growth, compliance with laws and regulations is fundamental to ensure organizations' steady future as well as to be highly competitive in the global arena. At present, an over-arching consideration for most organizations is, and will always be the compliance with laws and regulations. Apart from its direct benefit which is the continuation of business support from the government sector, the organization also gains indirect benefits, including social recognition, reputation and most importantly the organization's positive image. This, in turn, encourages every organization to be able to compete in the long run.

At Banpu, we also emphasize on our business operation to comply with relevant laws and regulations. With coal mines and power plants as our major assets in various countries, there are complexity and degree of differences in terms of laws and regulatory requirements among those countries. It is our mission to fully understand and comply with laws and regulations in each country. We are determined not to violate any laws or regulations which may bring negative image to our organization. We have developed policies and operational guidelines to administer business procedures which are compatible with the laws and regulations requirements at every levels in every countries. We strongly believe that strict compliance with laws and regulations represents our responsibility and commitment for the society which, in turn, helps us build a solid growth and a sustainable development.



Material Issue
 Compliance



Throughout our business management, it is very essential to comply with laws and regulations. In practice, we actively identify measures to manage our business operation in alignment with each country's regulatory requirements. These measures can be classified into 2 steps as follows:

 **To establish the foundation of business operations**

We recognize the significance of solid foundation for every business unit to align with laws and regulations. Therefore, in the first step, we carefully study applicable laws concerning a particular operational procedure. Next step, we apply the content of that law in laying out our management standards including work procedures of every single business unit in our organization.

Nevertheless, work procedures for the same type of business, but in different countries may not be necessary to have the same setting, due to the difference in laws and regulations of those particular countries, especially the air emissions.

 **To conduct an operational audit**

In order to ensure that our business operations comply with laws and regulations, management foundation as well as routine operational audits are put in place. We have established operational audit procedures for every single business unit which consists of audits by both internal unit and external auditor. Those ensure that we are able to achieve our goals and stakeholders' interests are maximized.

Operational Audit by the Internal Unit

Operational audit by our internal unit is vital to our confidence since it helps to reveal whether our current performance and efficiency align with existing missions and policies. Recognizing the importance of this matter, we have established 3 processes to evaluate our operations as follows:



Corporate Compliance

Ensure the governance of risk, operational transparency by observing both company specific and statutory regulations



Internal Audit

Ensure the adequacy of effective internal control which cover the establishment, maintain and implementation



Quality Assurance Review

A Process oriented to guarantee that the quality of the outputs meets predetermined quality standards



Corporate Compliance

To ensure that our business operations comply with laws and regulations, we have established Corporate Compliance function under the Legal and Compliance Department at corporate level. At present, the Corporate Compliance function performs its audit in four major countries namely Thailand, Indonesia China, and Mongolia.

For Thailand, the Corporate Compliance function has developed and provided checklist to every business unit for their self-audit in quarterly basis. Second step, to ensure that every business unit has complied with all relevant laws and regulations, Corporate Compliance has to visit and conduct its audit of every business unit.

Our subsidiaries in Indonesia had established Country Compliance function at country level. The primary roles of Country Compliance include developing checklist and making appointment the Compliance Coordinators to be addressed at every mine site. The major responsibility of Compliance Coordinator is to regularly conduct self-audit, report and follow-up the progress of non compliance issues to Compliance Country. However, to certify that Country Compliance function operates according to our

procedures and practices, the Corporate Compliance function will supervise the Country's Compliance on an annual basis.

The Legal Department of our subsidiaries in China had appointed a Legal Compliance Coordinator. His/her major responsibility is to contact, coordinate, develop checklist to every business unit for self-audit, and facilitate the follow-up of compliance procedures between Corporate Compliance function and every business unit in China. Each year, Corporate Compliance with Compliance Coordinator will supervise and check that all business units in China have operated in line with relevant laws and regulations.

In Mongolia, the Country Compliance function at country level has been firstly established in 2015. The primary roles of Country Compliance include developing checklist and also checking that all activities in every business unit in the country are complied with laws and regulations. The results of compliance checking have been reported to the Country Top Management on monthly basis.

Internal Audit

The company emphasizes continually on the importance of internal control. By focusing on the internal control system covered all activities sufficiently and appropriately to the business in order to increase the efficiency and effectiveness of operations including resource utilization, property maintenance, financial and managerial accounting reports, and other reports to be accurate and reliable, strictly compliance with laws and regulations relating to the business. The company has adopted COSO (Committee of Sponsoring Organizations of the Treadway Commission) standard as internal control framework which is divided into 5 areas: Internal control, Risk Assessment, Operating Control, Information and Communication Technology system, and Monitoring systems.

The company has set up a separate Internal Audit Function in the organization by target to evaluate the adequacy and effectiveness of internal control systems and activities implemented in the organization. The audit results must be reported directly to the Audit Committee who has the responsibility on reviewing the Company's internal control system.

Quality Assurance Review (QAR)

It is our policy that every unit under the division of Corporate Services comprising Health, Safety, Environment and Community Development Department, Information Technology Department, Legal and Compliance Department, Procurement and General Administration Department and Business Process Management Department must conduct self-assessment in terms of its performance efficiency and whether it is aligned with management standards and work procedures. The results from this self-assessment will be used for further improvement and development of each unit.

QAR is executed at corporate, country and site levels. Each country is responsible for conducting QAR at site level on an annual basis. Then, the site level QAR results will be verified and validated by QAR representative from corporate to ensure the compliance. Each year, QAR at country level will be arranged after QAR at all sites are completed.

At present, all Banpu's subsidiaries in Thailand, Indonesia and China have adopted QAR policy from the corporate. Whereas, business units in Mongolia and Australia will address and implement QAR concept in the near future.



Operational Audit by a Third Party

Apart from the operational audit internally, third parties such as government agencies or certified body also perform operational audit for our businesses. The benefit of using the third party is a higher degree of credibility of our operation compliance with laws and regulations. Details of the third party audit are as follows:

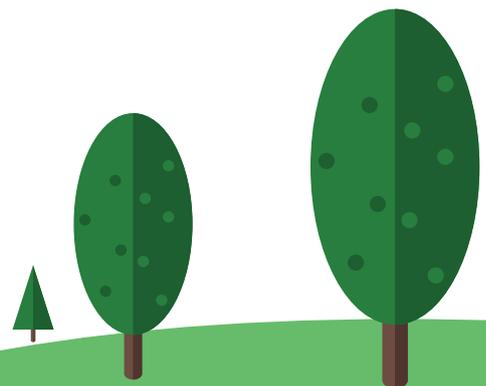
Operational Audit by Government Agencies

It is essential that our business operations in every country must be regularly inspected by government agencies. The main purpose of the audit is to ensure that our operations comply with applicable laws, regulations and other requirements of that particular country. Any violations will be subjected to punishment; for example, penalty fees or license cancellation.

As for our coal mine business in Indonesia, the law designates government agencies to inspect the operations in every location on a monthly basis. Key audit areas which government agencies focus on include occupational health, safety, and environment. The audit results in 2015 shown that all of our six mines have operated in compliance with Indonesia's laws and regulations.

Other business in other countries such as coal mines in Thailand and power plants in China will be randomly inspected in terms of occupational health, safety, and environment by government agencies. Therefore, every business unit must ensure its compliance with laws and regulations at all times so as to be well prepared for the audit.

Besides random audit of our power plants in China, Chinese government has issued the legal framework which enforces every coal-fired power plants to install Continuous Emission Monitoring equipment (CEM) to monitor air quality and to report the real-time monitoring results to government agencies. At present, our coal-fired power plants have successfully installed the equipment and already reported the results to relevant government agencies. In 2015, every power plants in China met the air quality standards under the regulation.



Operational Audit by the International Certified Body

Most of our business units have already been certified with international standards, consisting of Quality Management System (ISO 9001), Environmental Management System (ISO 14001), Occupational Health and Safety Management System (OHSAS 18001) and Business Continuity Management System (ISO 22301) from a certified body situated in that country. The operations of certified body will be re-inspected for compliance with laws and regulations to emphasize their credibility. The following table shows our business units that are already certified.

Country	Site	International Standard			
		ISO 9001	ISO 14001	OHSAS 18001	ISO 22301
Indonesia	Indominco Mine				
	Kitadin-Tandung Mayang Mine				
	Jorong Mine				
	Trubaindo Mine				
	Bharinto Mine				
China	Zouping Power Plant				
	Zhengding Power Plant				
	Luannan Power Plant				
Thailand	Bangkok Office				

The Outcome of Complying with Laws and Regulations

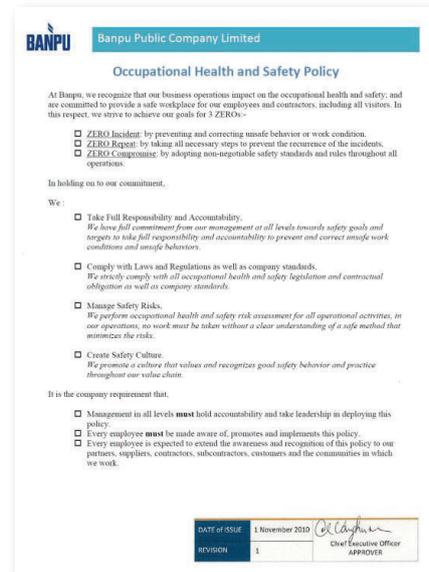
According to our routine operational audits by both internal and external parties, including inspection of the government agencies, the outcome in 2015 indicates that every business unit has fully complied with laws and regulations of each country. Therefore, in 2015, we were not penalized from any violations of laws and regulations.



OCCUPATIONAL HEALTH & SAFETY

As people are most valuable asset of the organization, we place occupational health and safety on top of our priorities. We have been continuing to mitigate risks that might lead to fatality, injury and occupational illness of both employees and contractors. Banpu strives to create safety to life and health for all employees and contractors as well as a safe working environment for betterment, as our mission of business operation adhering to Occupational Health and Safety Policy to create a sustainable future.

In all aspects of our business, we are fundamentally committed to required regulations on occupational health and safety, focusing on the efficiency and effectiveness of our performance in this area. A good example of our strict compliance with the legal framework is the establishment of the Safety, Occupational Health and Working Environment Committee at the Bangkok headquarters, consisting of representatives from the staff and management. The committee convenes at least once a month to relay safety information to the employees, receive suggestions on solutions to safety issues, follow up on safety operations, and make future safety plans and organize a fire drill every year to make sure that in case of an emergency, the employees can evacuate to a safe location quickly and in due time.



Material Issue

 Safety

 Occupational Health

 Supply Chain's Occupational Health and Safety Management

 Business Continuity Management



We also provides occupational health and safety training course for every employee levels ranged from operational to management and conduct occupational health and safety survey frequently. Furthermore, inspection and evaluation are also made into our working environment to measure heat, noise and lighting in the workplace in order to ensure that our employees operate in a safe, appropriate environment.

In addition, Business continuity management plan has rehearsed in prepare for unexpected events that may happen to operational, national, and international business unit in response to continuity assurance of stakeholders' interests.

In 2015, the occupational health and safety issues that the Company and its stakeholders paid attention to:

-  Safety
-  Occupational health
-  Supply chain of occupational health and safety management
-  Business continuity management



With a commitment to sustainability, Banpu has established the Occupational Health and Safety Policy binding to “accidents are preventable principle” that consists of three principles:

- 🌱 Zero Incident – by preventing and correcting unsafe behavior or working conditions.
- 🌱 Zero Repeat – by taking all necessary steps to prevent the recurrence of incidents.
- 🌱 Zero Compromise – by adopting non-negotiable safety standards and regulations throughout all operations.

Zero Incident is our target. To achieve that, we focus on creating a safe working environment by mitigating risks that lead to fatality, injury and illness of employees and contractors.

Management Approach

Sustainable Development Committee, chaired by CEO is the highest accountable committee who governs occupational health and safety. The goal of occupational health and safety is one of the KPIs of CEO's performance as well as executive's in every country. Heads of business unit of company and subsidiary in every country have direct responsible for goal achievement in occupational health and safety performance. Accountability on the performance of occupational health and safety was integrated to all functional units and levels as parts of business management with the aim of management effectiveness.

In addition, occupational health, safety, and environment unit is divided into 3 levels of which consists organization, business unit, and operation. The Company promotes business activities to achieve goal of occupational health and safety through business management standards, procedures, and relevant regulation of occupational health and safety, evaluates, and analyzes the performance effectiveness of occupational health and safety.

Management Review

The Company reviews occupational health and safety performance regularly in part of the executives meeting in both corporate, business unit, and operational level. For example, corporate monthly meeting, which is the primary channel to communicate lesson learnt or root cause of the incident to all executive levels as one of preventative measures for recurrence of incidents.

In addition, the Company promotes employees to take part in management and occupational health and safety governance through collaborative committee which includes executive's and employees' representative such as Safety, Occupational Health and working Environment (SHE) Committee.



We have a strong believe that sharing and learning from experience both in internal and external organization can result in promotion of cooperation within company as well as effective goal establishment and management approach of occupational health and safety. In consequence, a corporate strategic meeting on Health, Safety, Environment and Community Development Summit (HSEC Summit) was organized annually. This summit is a meeting of all business units, both operational and supporting functions about how to continually improve our HSEC performance for not just to secure our license to operate, but to ensure the efficiency and effectiveness of our business. The most recent HSEC Summit was conducted in October 2015 with a discussion about how we can create gold class standard in HSEC for *Moving to the Next Decade*, especially in a safe working environment aspect.

Safety Culture

With intention to mitigate risks from fatality and occupational injury, both of employees and contractors. The Company has initiated to encourage safety culture throughout headquarter and all operational sites. Along with belief of individual action derived from personal conceptual, therefore, the Company encouraged safety culture awareness, behavior, and expression to staffs, so that they could behave based on those fundamentals, providing that most employees has their expression and behavior of the same fundamentals that could be led to Corporate Culture.

Building occupational safety culture is initiated from executives and heads of business unit engagement, as occupational safety culture assessment, including setup the goal in both of organization and national level with the integrated survey through discussion, interviews, survey questionnaires, observation, and documental assessment. For example, in 2015 occupational safety culture survey was conducted in order to evaluate previous year performances as well as 2016 strategy establishment.

Since our operations are located in various countries, our management approaches of occupational safety culture awareness are different from one location to another.

Incident Reporting System

To monitor and oversee occupational health and safety performances of the business units. We have developed incident reporting system. It provides supports for reporting from operational level to headquarter which are in comprehensive form of incident conditions ranged from nearmiss to fatality. Moreover, to prevent recurrence of fatality or occupational injury, this system also covers root cause investigation.

Safety Performance

We explicitly setup safety performance target every year and compare those target with incident reporting result. We are deeply engrossed to develop as we can see the significant decrease of Injury Frequency Rate of employees and contractors during 2007-2009 and continuously declined until present. At year-end of 2015, Injury Frequency Rate was at 0.39 person per million man hour.



Nevertheless, at middle of 2015, one of our contractors had a fatal accident while attending to maintenance activities. The investigation was made to identity the root cause to prevent the same accident from repeating. Also, the operation related to the incident was reviewed and improved and risk assessment was intensified to create a culture of safety and prevent future mishaps.

Safety Management at Coal Business in Indonesia

The coal business in Indonesia conducts safety training for mine workers every year to build confidence and raise safety awareness both for operational staff and their supervisors. Training topics include accident analysis and investigation, which offers the workers general understanding and analysis methods for root cause identification, helping them find solutions to prevent repeated accidents; and workplace health management, which promotes occupational health.

To improve the efficiency of their operations, our coal mines in Indonesia have developed Mining Safety Management System (Sistem Manajemen Keselamatan Pertambangan: SMKP). This system was integrated to all mine sites and was first introduced in 2015 as well

as it would be implemented in 2016 onward. SMKP system was also integrated in compliance with Indonesia Mining Regulation.

In addition, to create confidence in standards and build cooperation within the organization, Banpu has launched a safety benchmark project between the coal businesses in Indonesia and Australia. The employees in Indonesia visit and learned about underground mining operations in Australia. The team got to familiarize themselves with the safety measures and standards of their Australian counterparts that have resulted in zero accidents so that they could apply the knowledge to their mines in Indonesia.

Leadership Workshop to Improve Work Safety

In 2015, ITM, Banpu's subsidiary in Indonesia, has initiated the Leadership workshop to improve work safety aimed at all leaders at every level of organization, from supervisor to the mine head with 40 persons taking part in total from Indominco, Trubaindo, and Bharinto mines.

The workshop modules were intended to create understanding among the participants with regard of occupational health and safety and its legal basis, to remind them about fundamental leadership, and to provide them with the capability and tools to practice occupational health and safety through an effective leadership.



Safety Management at Coal Business in Australia

Centennial, our subsidiary in Australia, with commitment to be a safety leader, expected our employees to care for occupational health and safety both of themselves and other colleagues. We also determine that our employees go home safely and happy.

Centennial has been continuing for improvement to encourage staffs to work under safe workplace circumstance. For example, a project called “Step Change” to build a culture of safety since 2009. The project has made great success in changing the mindset of its employees, allowing them to recognize that safety is a personal matter that requires consistency and continuity and should maintain at all times.

In addition, we also provided a safety culture survey in workplace that was conducted at all company mine sites in Australia in 2014. The survey result used as fundamental data on safety promotion strategic activities for 3 years afterwards as well as direction for standardizing operational standards in occupational health and safety. Then, we would have a safety culture survey in Australia again in 2017.



Safety Management at Power Business in China

Our power plant in China aimed to maintain their excellent safety record for many years, included training on occupational safety as well as activities of occupational health and safety were promoted regularly to employees.

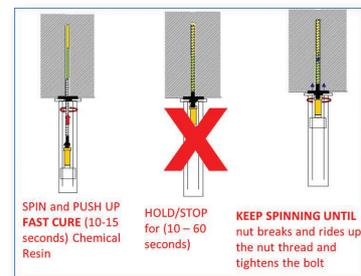
In 2015, there was no incident records of 3 power plants in China. This led to our strong determination in organization to Zero Incident goal.

Roof Bolting Technic Improvement at Airly Mine

One of the safety measures that must be taken in underground mining operations is installing roof bolt support. Though widely used, the traditional method of installing roof bolt has recognisable challenges such as, time consumed for the chemicals to be harden before tightening the bolt firmly. Moreover, the reliability was also relies on the expertise of operator on the appropriated holding time before and after tightening the bolt.

To replace the traditional method, a Spin-to-Stall roof bolt support system trial was undertaken at Airly Mine during 2015. The Spin-to-Stall system addressed the above issues by having a chemical resin and roof bolt with properties that allowed the bolt to be installed and mixed with the chemical resin until it cured and tensioned within a relatively short time. The installation process involves inserting the chemical ahead of the bolt and spinning the bolt to mix with the chemical resin as the bolt is pushed up the hole and continuing spinning the resin at the back of the hole until it cures in place and the torque nut breaks, rides the bolt thread and tensions the bolt. This process achieved reduction in roof bolt installation time, including consistent quality of the installed bolt.

Following the success of the system at Airly, the system was trialed at Myuna with the same objectives. The trials at Myuna have since been successfully completed and a phased implementation of the roof bolt system is currently underway, with efficiency benefits already achieved.



Safety Culture “I am the Owner on my Territory” in China

Since 2013, 3 power plants in China, have been conducting a project to promote safety culture called “I am the Owner on My Territory” in order to build employee’s participation of workplace safety culture awareness throughout risk identification from workplace and working procedure.

The example that could be a successful evidence of this project was People Injury statistic during 3 years of project implementation decreased to 50%. In addition, this led to decrease 40% of Machine Failure.



Promoting Travelling Safety with Satellite Mobile Phone and Satellite Navigator Equipment at Hunnu.

Because of geographic location of Hunnu, our subsidiary in Mongolia, our site located partly in desert. There is higher risk of Hunnu’s employees from travelling to office than working areas in other countries.

Hunnu has conducted a routine inspection on the safety equipment every time before travelling. The checklist of small vehicle safety equipments consisted of leather gloves, rubble wheel support, first aid kit, and individual chemical protective clothing. In 2015, we provided satellite mobile phone and satellite navigator as one of regular standard vehicle equipments to promote higher travelling safety and employee’s travelling convenience.



Risk Assessment Training at Tsant Uul Mine in Mongolia

In June 2015, at Tsant Uul Mine, Umnugobi City, Mongolia, we organized Risk Assessment Training Program for mine workers with total 37 of participants. The training was divided into 2 sections; theory and workshop as to communicate and indicate risk that might be from working, and to drill risk assessment in workplace as well.

Moreover, Tsant Uul Mine has implemented Remedial Action Tracking System (RATS) to improve incident reporting system. This year, the program provided to head of maintenance department as a part of review and analysis plan to monitor safety management which will be continually updated as appropriate.





Occupational Health



The Company recognizes the impact of health on the safety and happiness of its employees at work. To collect and monitor the employees' health data, Banpu organizes an annual medical checkup for its entire staff and regularly promotes health news at the offices.

Last year, in addition to the normal monitoring of seasonal diseases, such as malaria and dengue fever, the Company also watched out for global epidemic diseases, such as Ebola and the avian flu, as well as the impact of huge forest fire in Indonesia, to make

sure that none of its staff would be affected by the diseases and impacts.

In addition, the Company measures air quality at every operational site to ensure a suitable working environment for its employees. In case an operational site poses risks, appropriate personal protective equipment is provided. Even though Banpu has never experienced occupational health incidents, the Company continues to implement strict risk management.

Occupational Health and Safety Activities Promotions in Bangkok Office

In 2015, we provided occupational health and safety activities for employees in Bangkok office consisted of 2 main activities; Stay Fit & Healthy and rubber exercise.

Safety, Occupational Health and working Environment Committee organized Stay Fit & Healthy Activity in order to promote occupational health for staffs. They also invited sport science specialist for knowledge sharing session on sport exercise and prevention of Office Syndrome. This activity also provided basic exercise workshop to test employee's physical health and

to promote exercise awareness. There was more than 60 participants of Bangkok Office.

The rubber exercise activity is a continued activity from Stay Fit & Health with the objective to communicate the affect that might be apparent in staying in the same position for a prolonged period during working and to introduce basic exercise step during work hour with easy-find equipment. It took 10 minutes for every department to participate this activity every Tuesday and Thursday.



Supply Chain's Occupational Health & Safety Management



For a sustainable future, our concern is not limited to only our people, but also covering all people and stakeholders in our supply chain. The occupational health and safety management in our supply chain firstly focused on the contractor. We recognize and value the contribution of our contractors on the safety performance.

Contractor Management System (CMS) has been established with the aim to ensure that our contractors perform in accordance with what we commit. To achieve our goal, the guidelines for managing Health Safety and Environmental risks through the establishment of relevant HSE requirements within the framework of CMS have been developed. It is expected that, by implementing CMS, any risks associated with occupational health, safety and environmental aspects of all contracted business activities will be mitigated.



The framework of CMS covers two phases as follows:

Contractor Engagement

We established the scope of work, the occupational health, safety and environmental hazards associated with the contractual work must be identified, and their respective impacts must be determined. Then, the proper HSE risk mitigations must be reviewed with clear goals, targets, and performance measures. Such risk mitigations are incorporated as part of contractor selection process and also as part of the contract.

Contractor Management

Before the contractor starts working, contractor's HSE management plan must be established, submitted and approved. This includes targets, control measures, and also the emergency response plans. Then, during contractor operation, the contractor's performance is periodically evaluated.

This means that any HSE related risks are identified and proper mitigation plans are reviewed since the beginning of the contracts. Moreover, to ensure the effectiveness of the CMS implementation, the assurance process was developed and has been implemented every year since 2010.

By focusing on the incident analysis that most of the fatality incident comes from activities operated by our sub-contractors, we extended the scope of our contractor management system to also cover sub-contractors.

Theory and Simulation ISPS Code for Contractors

ITM, our subsidiary in Indonesia, organized ISPS Code (International Ship and Port Facility Security Code) Training, Drill, and Exercise in October 2015 in Bontang, East Kalimantan. This training was conducted for employees, contractors, and subcontractors as well as related local government.

The ISPS Code training covers a set of measures to enhance the security of ships and port facilities which was one of standard procedures of Banpu with cooperation of PT Yapanindo Konsultan, a Recognized Security Organization (RSO). The training activity comprised dissemination of ISPS Code, organization structure comprehension, and port disruption handling due to demonstrations both on land and at sea.



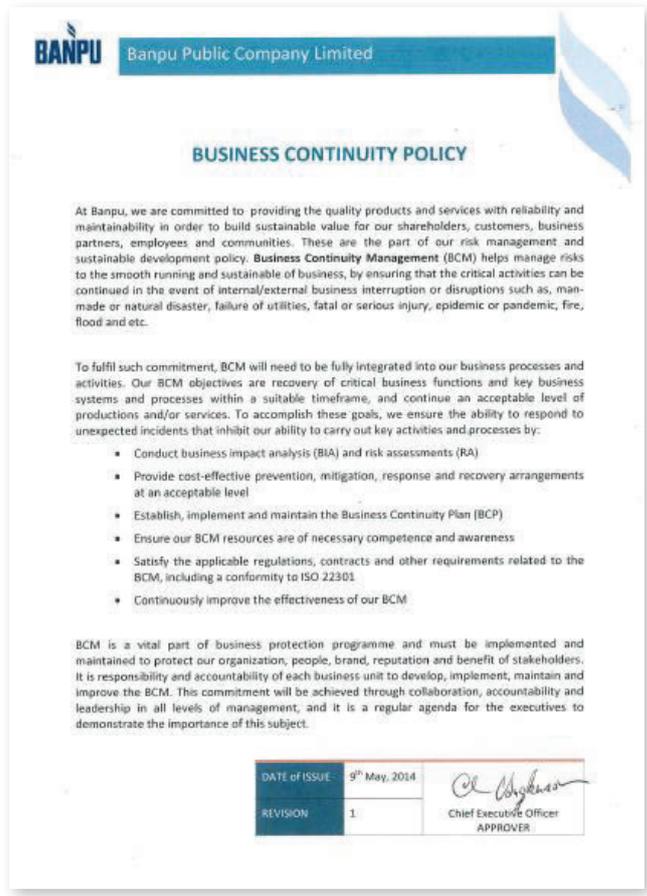
Business Continuity Management

Amid changes and uncertainties, various disasters, both natural and man-made, can happen at any time. If a crisis were to strike an organization and cripple its usual operations, the organization would face several negative consequences, such as the loss of ability to respond to customer needs and damage to its financial status, reputation, and credibility. Therefore, Banpu puts importance on its capability to continue its business in a time of disaster.

The concept of business continuity management has been adopted by Banpu since 2005 with the aim of ensuring that major business activities can continue smoothly during a time of crisis, whether it is a natural disaster (such as a storm, a flood, or an earthquake) or a man-made one (such as a fire, a chemical leak, a protest, or a riot). In 2006, the Company began developing its business continuity, emergency response, and recovery plans as well as other necessary programs, including the establishment of operational and executive emergency teams together with their roles and responsibilities in a crisis. Annual business continuity drills have been conducted at the Bangkok headquarters in conjunction with other programs since 2007.

To further improve its capacity for business continuity management, the Company began to apply international standards, such as the ISO 22301 Business Continuity Management System starting at the

headquarters. In December 2015, Banpu was certified for ISO 22301:2012 by Bureau Veritas (Thailand). In the near future, we would introduce the standard to all business units in other countries.



Emergency Drill in Indonesia

ITM, Banpu's subsidiary in Indonesia, has been continually conducting emergency drills for various simulating situations. For example, in 2014, they organized an oil spill drill, which simulated that there was an oil spill in the river and explosions at an oil storage facility. Their emergency response teams responded to these situations using prepared equipment. The purpose of the drill was to equip the staff with knowledge and skills necessary for emergency response and prevention of damage to life, property, communities, and environment. Not only did the drill offer the staff important know-how, but it was also an opportunity to review emergency response plans.



Banpu certified for Business Continuity Management of ISO 22301

Banpu Public Company Limited was certified for Business Continuity Management System (ISO 22301) of Business units in Bangkok Office by Bureau Veritas.

This certification is a successful evident to ensure that risks management are put in place and raise confidence to all stakeholders that business activities can continue smoothly in a time of crisis whether it is a natural disaster or a man-made one.



Participation and Membership



Organization	Status	Role	Country
Indonesia University	Member	Guest Speaker	Indonesia
National Rescue Team Association	Member	Meeting and Seminar	Indonesia
Indonesian OHSAS Association Forum	Member	Meeting and Seminar	Indonesia
Indonesia Mining Association (IMA) and Indonesian Coal Mining Association (ICMA)	Board of Environment Health and Safety Committee	Meeting and Seminar	Indonesia
NSW Minerals Council Executive Committee	Member	Meeting and Seminar	Australia
NSW Minerals Council Board	Board Member	Meeting	Australia
Coal Services Pty Limited	Board Member	Meeting	Australia
Australian Coal Association Limited Project	Member	Meeting and Seminar	Australia
MCA OHS Committee	Member	Meeting and Seminar	Australia
NSW Minerals Council OHS Committee	Member	Meeting and Seminar	Australia
Coal Services – Airborne Contaminants and Diesel Particulate Sub Committee	Member	Meeting and Seminar	Australia





Awards & Recognitions

Site	Awards / Recognitions	Host Institution
Luannan Power Plant	3in1 Quality Safety Environmental Management System certifications	The International Certification Network: IQNET and China Quality Certification Center: CQC
	Demonstration Enterprise on Safety Culture	Tangshan City Safety Production Committee
Zhengding Power Plant	3in1 Quality Safety Environmental Management System certifications	The International Certification Network: IQNET and China Quality Certification Center: CQC
Zouping Power Plant	3in1 Quality Safety Environmental Management System certifications	The International Certification Network: IQNET and China Quality Certification Center: CQC
	Advanced Units of Production Safety	Local Government
Bharinto Mine	OHSAS 18001:2007	BSI Indonesia
	Zero Accident Award	Ministry of Employment of the Republic of Indonesia
	Silver Level - Mine Safety Award	Ministry of Energy and Mineral Resources Republic Indonesia - Directorate General of Mineral and Coal
	Gold Certificate - OHSMS	Ministry of Employment of the Republic of Indonesia
Indominco Mine	OHSAS 18001:2007	SGS Indonesia
	Zero Accident Award	Ministry of Employment of the Republic of Indonesia Ministry of Energy and Mineral Resources Republic Indonesia - Directorate General of Mineral and Coal
	Silver Level - Mine Safety Award	Indonesia - Directorate General of Mineral and Coal
	Gold Certificate - OHSMS	Ministry of Employment of the Republic of Indonesia
	Gold Category - HIV/AIDS Prevention and Control Program in The Workplace A	East Kalimantan Governor
Jorong Mine	Bronze Level - Mine Safety Award	Ministry of Energy and Mineral Resources Republic Indonesia - Directorate General of Mineral and Coal
Kitadin-Embalut Mine	Zero Accident Award	East Kalimantan Governor
Kitadin-Tandug	OHSAS 18001:2007	SAI GLOBAL
Mayang Mine	Zero Accident Award	Ministry of Employment of the Republic of Indonesia
	Bronze Level - Mine Safety Award	Ministry of Energy and Mineral Resources Republic Indonesia - Directorate General of Mineral and Coal
Turbaindo Mine	Zero Accident Award	East Kalimantan Governor
	Bronze Level - Mine Safety Award	Ministry of Energy and Mineral Resources Republic Indonesia - Directorate General of Mineral and Coal
TRUST	Zero Accident Award	East Kalimantan Governor



ENVIRONMENT



Banpu focuses on a considered balance between sustainable business growth, integrated environmental development and social responsibility. Beginning each project with a study of environmental impact assessment to design operational plan and apply clean and suitable technologies in operating of a project.

community involvement in order to return sustainability to a particular site at the end of our operation. This approach based on our business credo for over three decades that “An industry will be strong only when it is developed in tandem with social and environmental responsibility”

Banpu has designed roadmap for our operation in long-term that can deploy into medium-term and short-term plans, together with environmental impact mitigation & preventive measures and environmental impact monitoring measures, both inside concession and its surrounding areas. These are to ensure the minimal environmental impacts from our activities including efficient resource utilization. A mine rehabilitation plan has been developed to restore the mining areas with the

Banpu has established comprehensive environmental management standards and applied across all operational sites. Since our operations are located in various locations, approaches we used are different from one to another according to its strength and limitation. These environmental management systems are the key mechanism in promoting collective consciousness of our employees to optimize resource utilization and environmental preservation.

Material Issue



Climate Change



Mine Rehabilitation and Biodiversity



Air Quality



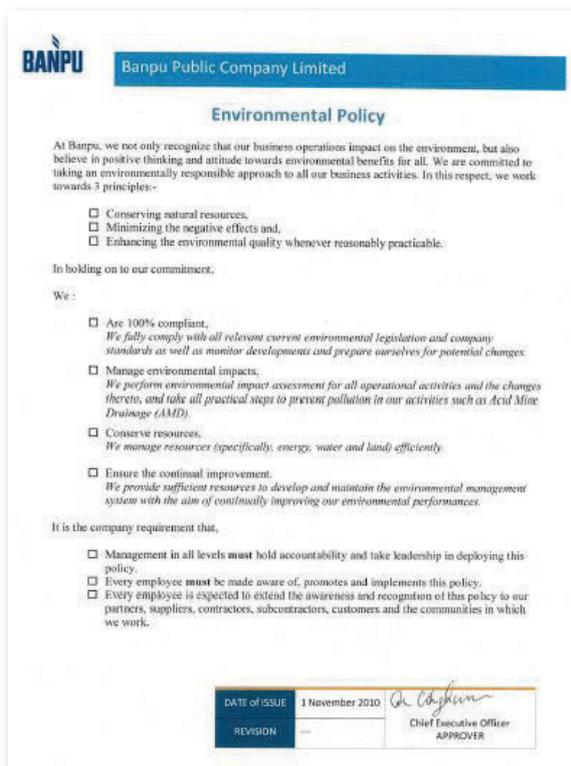
Water Management



Supply Chain's Environmental Management



G4-19



Banpu has established an internal control system which is regularly reviewed. This is to prevent the recurrence of incidents. In addition, our production is regularly audited by both internal and external independent parties to ensure that each site has and implements a proper environmental management program, comply with legal requirements and in line with international standards.

As our strategic direction to increase investment in renewable and alternative energy, we have studied and invested in various renewable energy projects, including improving our existing operations to minimize emission and responding to low carbon society in future.

Under our environmental policy, Banpu committed to:

Full compliance with laws, regulations, and standards

Banpu fully and strictly complies with local laws and regulations and environmental standards and constantly monitors possible changes in the regulations.

Management of environmental impacts

Banpu always makes an assessment of environmental impacts and risks before starting any projects to ensure that it makes a good investment by considering its economic value and social and environmental impacts. Also, we put in place effective environmental protection and risk mitigation plans, both for the short-and long-terms.

Natural resource conservation

Banpu is well aware that natural resources are not only an important cost of production, but also an estate to be left behind for the use of the younger generations. Banpu, therefore, places great emphasis on the conservation, allocation, and responsible consumption of resources for utmost benefits, particularly focusing on our three most important resources: energy, water, and land.

Continual improvement

Banpu encourages work process improvement, establishment of operational standards, adoption of environmental innovations and technologies, and implementation of environmental management systems at all of its production units with the aim of systematically achieving improvement of its environmental performance.

In the past year, the key environmental issues that Banpu and our stakeholders focused on included:

-  Climate Change
-  Mine Rehabilitation and Biodiversity
-  Air Quality
-  Water Management
-  Supply Chain's Environmental Management



Climate Change



Climate change is a crucial challenge. Natural disaster is a consequence of climate change that has become more widespread and frequent. Reduction of greenhouse gas emissions should be engaged by all global sectors in order to help mitigate the impact of climate change.

United Nations Framework Convention on Climate Change (UNFCCC) was developed with objective to stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. This aim also assures of food security and sustainable economic development. However, UNFCCC has not assigned a certain greenhouse gas emission for all parties. One of UNFCCC's missions is to hold the increase of global temperature to below 1.5-2 degree Celsius

above pre-industrial levels. The 17th Conference of the Parties (COP 17) had decided to negotiate on GHG mitigation and adaptation under the Ad Hoc Working Group on Durban Platform for Enhance Action (or called as ADP) to adopt "a new protocol" that will be force with all Parties in 2020. Furthermore, the Conference of the Parties secretariat invited Parties to submit Intended Nationally Determined Contributions (INDCs) within the first quarter of 2015 or before COP 21. The COPs agreed that INDCs of each country will represent their progress on climate change action. Common but Differentiated Responsibilities and Respective Capacities (CBDRRO) and differentiation of national circumstances are the principles that acknowledge the difference responsibilities of individual countries in addressing climate change.

In order to hold global temperature in the atmosphere to below 2 °C, the GHG emission must be reduced under 2.5 gigatons of carbon dioxide equivalent per year (Gt CO₂e/y). Amount of GHG emission from power generation is approximately 25% of global GHG emission. Meanwhile, for coal mining, the GHG emission is around 1% of global GHG emission.

Two ranges of intended GHG mitigation submission are Nationally Appropriate Mitigation Action (NAMA), which 2020 is the target year, and Intended Nationally Determined Contributions (INDCs), which 2030 is the target year. The NAMA and IND Cs of countries that company has business units as follows;

Country	NAMAs target	INDCs target
Thailand	Reduction target of 7-20% from business as usual <ul style="list-style-type: none"> - 7% reduction by national policy - 20 - 25% reduction, if there is any support from developed countries This target emphasizes energy and transportation sectors	Reduction target of 20-25% from business as usual <ul style="list-style-type: none"> - 20% reduction by national policy - 25% reduction, if there is any support from developed countries This target cover all sectors (Land Use Change and Forestry will be consider later)
Indonesia	Reduction target of 26% from business as usual This target includes energy, transportation and land use sectors.	Reduction target of 29-41% from business as usual <ul style="list-style-type: none"> - 29% reduction by national policy - 41% reduction, if there is any support from developed countries This target includes energy, transportation and land use sectors
China	Reduction target of 40-45% per GDP (base year: 2005) 15% of reduction will be non-fossil fuel consuming	Reduction target of 60-65% per GDP (base year: 2005) 20% of reduction will be non-fossil fuel consuming
Australia	Reduction target of 25% (base year: 2000) <ul style="list-style-type: none"> - 5% reduction without condition - Up to 15%, if there is a global agreement 	Reduction target of 26-28% (base year: 2005)

Information as of December 2015

Source for NAMA information : http://unfccc.int/focus/mitigation/pre_2020_ambition/items/8167.php

Source for INDC information : <http://www4.unfccc.int/submissions/indc/Submission%20Pages/submissions.aspx>

Banpu recognizes the importance of GHG reduction and prepares for any climate change related risks. We also give priority to challenges and opportunities from the alternative energy by integrating climate change as one of our material issues. These material issues are discussed by the Sustainable Development Committee. In 2015, considering our main businesses in 3 countries, power business in China contributed 40% of total GHG release. Followed by coal business in Indonesia and Australia with approximately 30% share from each country.

Both of our businesses, coal mining and power generation, all depend on energy in their production processes and inevitably release greenhouse gas into the environment. The main activities causing greenhouse gas emissions include the use of coal for power plants and the use of diesel in heavy machinery and haul truck for mining activities and electricity consumption, while methane is also released from coal beds and stockpiles. As a result, Banpu gives attention to the greenhouse gas emission reduction programs, which are part of our social responsibility commitment to our stakeholders.

In the meantime, the selection of suitable technologies and balance between each energy source are the main important factors of business continuity, with objectives to mitigate GHG emissions, enhance energy security, mitigate risk from relying on only one energy source including to ensure the affordable energy price.

Policy and Goals

Banpu's Carbon Policy has been implemented across the organization since 2010. The Carbon Target was set to lower the greenhouse gas emissions from the coal business in Indonesia by 5% per unit of production by 2015, using the 2010 emission figure as baseline. Since the target came to conclusion at the end of 2015, the Carbon Policy and Target were reviewed by the Sustainable Development Committee in concern of the global challenge and agreement such as COP21. The new Carbon Policy and Target were announced at the beginning of 2016. Since our two main businesses, coal mining and power generation, are different, the Carbon Target was set differently from one to another. For coal business, our target is to lower the GHG emissions intensity by 25% by 2020, using the 2012 emission figure as baseline. For power business, our target is to lower the GHG emissions intensity by 15% by 2020, using the 2012 emission figure as baseline.



Carbon Policy

Climate change is the critical global challenge that leads to risks of serious damage to global prosperity, sustainable development and well being of the society. It is requiring all parts of society to take extensive actions.

Banpu aware needs of urgent actions to keep the increasing temperature to be below 2 °C by 2050. We aim to be a part of the solutions and support global agreement on climate change. The challenges and opportunities from climate change are the integral part of our sustainable development. We commit to:

Mitigation

- Ensure our compliance related to climate change in every country we operate.
- Seek to reduce our greenhouse gas emission by ensuring energy efficiency, utilization of low emission and cost effective technologies as a part of our operation planning.
- Measure our greenhouse gas directly and indirectly, reduction progress and periodically communicate the results to stakeholders.

Adaptation

- Build capacity to understand fully the implications of climate change for our business and to develop a coherent business strategy.
- Monitor risks, opportunities and implications of climate change as our corporate-wide risk management process.
- Invest and plan for business continuity regarding climate change.
- Support our host communities and stakeholders for adapting to a changing climate.

Low- Carbon Society

- Drive sustainable growth of the company with effective response to climate change and transition of future business investment portfolio.
- Seek to develop our capacity and invest in low carbon or renewable energy.
- Continue to support initiatives, research and development of low greenhouse gas emission technologies and renewable energy that are appropriate to our business.
- Seek to engage with other enterprises or stakeholders to reduce carbon emissions.

In implementing this policy, we establish measurable indicators to monitor and review in order to ensure that our Carbon policy would be practically achieved.

Document No.: TH-HSEC-EN-P0-01	 (Somruedee Chaimongkol) Chief Executive Officer
Revision: 1	
Date: 1 April 2016	



Reduction of Greenhouse Gas Emissions

Although Banpu has set a target to reduce greenhouse gas emissions during 2010-2015 only for the coal business in Indonesia, the Company has expanded its scope to reduce GHG emissions to cover all businesses that additionally invested after target setting date. In practice, the Company's strategic plan focuses on the efficiency improvement and energy consumption per unit of production reduction. Such measures are, for example, an integrated mine planning and employees' motivation to initiate process improvement program. In 2015, our performances in regards to GHG emission release are as follow:

Business	GHG Emission Rate		GHG Emission Amount	
	Release Rate	Decreasing Rate*	Amount	Decreasing Rate*
Coal Business in Indonesia	0.0457 tonnes CO ₂ e per tonne of finished coal	26% from based year	1.25 million tonnes CO ₂ e	10% from based year
Coal Business in Australia**	0.0982 tonnes CO ₂ e per tonne of finished coal	26% from based year	1.66 million tonnes CO ₂ e	27% from based year
Power Business in China	0.3373 kg CO ₂ e per kWh	7% from based year	1.84 million tonnes CO ₂ e	4% from based year

* Based year 2010

** Due to the Australian reporting standard, the GHG data must be audited and approved by Australian Federal Government before disclose. The data of our operation in Australia in the table is thus for 2014. The 2015 data are under the audit process by Australian Federal Government.

Disclosure

Apart of disclosure through this sustainability report, Banpu also joined the Carbon Disclosure Project (CDP) since 2006 to disclose information on its greenhouse gas emissions and strategies to our stakeholders, particularly investors. Banpu has set its reporting scopes for both direct and indirect emissions (Scope 1 and Scope 2) for businesses that it has operational control. In 2015, Banpu was ranked by CDP for its disclosure score at 91 and its performance band at C.

Management of Climate Change Risks

Banpu regularly evaluates and analyzes the risks and impacts from climate change on our operations in terms of economic impact, marketing activities, and legal requirements, as well as the risks from natural disasters. Such risks are quarterly reported to the Risk Management Committee. We have also put in place the Business Continuity Management system to reduce risks and impacts that may affect our operations in different areas including climate change.



Climate Change and Coal Business

Not only effective energy plan and management are relevant factors, but the life of mine is also an important factor of energy consumption in coal business, especially for an open-pit mine. Since energy is mostly consumed in the initial period for land clearing, road construction, mining equipment and also top soil stripping at the beginning of activities. During operational phase, mining means boring deeper into the earth and having longer distances for transportation. Furthermore, slope level, topography and climate can also affect to energy consumption. Accordingly, Banpu gives the priority of mining design and energy management in long-term through its whole mine-life, than short-term duration.

Mining activities that emit greenhouse gases include:

- 🚛 Use of diesel for heavy machinery
- 🚛 Use of diesel for haul trucks
- 🚛 Use of diesel for sea transportation
- 🚛 Use of diesel and coal in electricity generation for mining activities such as coal crushing and coal washing
- ⚡ Electricity purchased for coal production
- 🌋 Release of methane from coal beds
- 💣 Use of explosives for overburden removal



In 2015, various initiatives to reduce greenhouse gas emissions were carried out as follows:

- 🌱 Formulating Energy and Carbon Policies conducted by ITM, our subsidiary in Indonesia, which aims to mitigate GHG emission as part of energy management. Moreover, other activities relating to the policies are also conducted, for example, participation in Carbon Disclosure Project (CDP), carbon reduction workshop and a research to reduce GHG emissions etc. Meanwhile, Centennial Coal, our subsidiary in Australia have set a goal to reduce GHG 20% within 2020.
- 🌱 Minimizing energy use in its coal production by making an effective mine planning, as well as efficient transportation and production. For example, a belt conveyor system was installed at Indominco Mine in order to reduce energy used for overburden transportation and also GHG emissions.
- 🌱 Improving effective top soil stripping by conducting a detailed geophysical survey to optimize amount of explosives used for overburden removal and replacement of explosive source by using used oil.
- 🌱 Using biodiesel instead of diesel in Jurong Mine.
- 🌱 Improving and maintaining the efficiency of machinery, trucks, and other vehicles based on the Total Productive Maintenance (TPM) concept.
- 🌱 Reducing the release of GHG emissions from underground mining by installing Ventilation Air Methane Regenerative after Burner (VAM-RAB). This

project was funded by Commonwealth Department of Resources, Energy and Tourism in Coal Mining Abatement Technology Support Package (CMATSP) and ACA Low Emission Technology (ACALET) through Coal 21 Fund. This project is applied and developed at Mandalong Mine, who is the greatest GHG producer (about 75% of Centennial). We expect GHG emission will be reduced approximately 30% at the end of this project and used as an best practice for other mines.

- 🌱 Developing the Shipment Demand Pull system to improve coal production planning and transportation for energy saving and also demurrage cost reduction.

In 2015, Banpu's coal business in Indonesia emitted approximately 1.25 million tonnes of CO₂e, a 10% decrease from 2010. Meanwhile, the coal business in Australia emitted 1.66 million tonnes of CO₂e in 2014. (The figure of 2015 is still under reviewed by a government agency)

Our target is to lower the greenhouse gas emissions of the coal business in Indonesia by 5% per unit of production by 2015 (using 2010 emission figure as a baseline). Banpu made a success in reducing our of GHG emission per unit of production in 2015 as target. Our coal business in Indonesia lowered GHG emissions to 0.0457 tonnes CO₂e per tonnes of finished coal, a 26% decrease from the 2010 baseline. The coal business in Australia also reduced the GHG emissions to 0.0982 tonnes CO₂e per tonne of finished coal, a 26% decrease from based year.

Ventilation Air Methane Regenerative After Burner (VAM-RAB) Project at Mandalong Mine

Mandalong mine is the highest emitted methane mine comparing to our sites in Australia with approximately 75% shared of total greenhouse gas emission (Scope 1 and Scope 2) of Centennial, our subsidiary in Australia.

Since the global warming potential of methane is 21 times greater than carbon dioxide, Centennial commenced a joint project called Ventilation Air Methane Regenerative After Burner (VAM-RAB). The objective of this project is to capture low concentration of methane emitted from the ventilation system from underground mine and converted to carbon dioxide, which has less global warming potential. The VAM-RAB was installed at one of the ventilators at Mandalong mine for researching, developing and efficiency testing. This project was subsidized by the Commonwealth Department of Resources, Energy and Tourism as part of the Coal Mining Abatement Technology Support Package (CMATSP) and ACA Low Emission

Technology (ACALET) through Coal 21 Fund, a research and development funding to abate methane emission and work safety at coal mining.

With approximately of AU\$30 million budget, the VAM-RAB were installed near a main ventilator and gas flare infrastructure with treatment capacity of 100-150 cubic meter per second. A detailed study including additional construction is on process. When project construction is completed, it is expected to reduce greenhouse gas at Mandalong mine approximately 30%, and promoted as an best practice for other sites in Australia.



Climate Change and Power Business

By adopting the operational control approach to report the GHG emissions, only three combined heat and power plants in China are included in this report namely Zouping, Luannan and Zhengding. All of which use coal as fuel source for their power and heat production. Their GHG emissions accounted for 40% of our total emissions. Therefore, we aim to limit our GHG emissions per production unit to a minimum level by increasing efficiency improvement and the optimization of electricity and heat ratio to suit the market situation.

Banpu achieved the target to lower greenhouse gas emissions from its power production. In 2015, the emission intensity dropped to 0.3373 kg CO₂e/kWh. Apart of process improvement, we are also initiated to lower our GHG emission by investing in renewable energy. In 2015, we constructed and operated solar farms in Japan with net installed capacity of 10 MWac and there are many solar farm projects under study and development around the country.

Low-Carbon Energy Source at Zouping Power Plant in China

Zouping Combined Heat and Power (CHP) Plant is a power plant of Banpu Power Public Company Limited, a subsidiary of Banpu, which located at Shandong province, China. The power plant has been started commercial operation since 2001 with total power capacity of 100 MW and steam capacity of 500 tonnes per hour. In 2015, Zouping's products including 531,164 MWh and 2,770,554 tonnes of power and steam that could be sold with greenhouse gas was emitted as 784,365 tonnes CO₂e.

In 2015, Zouping power plant conducted efficiency improvement of boiler no.2 with investment around US\$ 1.5 million. The power plant was re-designed to use Blast Furnace Gas (BFG), a waste gas from nearby factories, as energy source to generate heat and power. After the improvement project was completed in October, an amount of 23,597 tonnes of coal consumption at the power plant could be substituted by approximately 190 million cubic meter of BFG during October to December 2015. Thus, 42,860 tonnes of CO₂e was estimated to be reduced from this substitution, or 5.5% reduction comparing to total greenhouse gas release in

2015. Additionally, this project can also reduced the maintenance cost of 0.3 million USD per year.

As the result of the initiation at Zhoping power plant by improving production process from waste gas utilization, the benefit of this project are not only energy saving and cost reduction, but it is also a part of the greenhouse gas reduction.

Project Information

	Thousand USD
Capital Investments	1,350
Operating Expenses	150
Total Expenditures	1,500
Saving on preventing coal consumption	1,359
Savings on operation and maintenance cost	315
Total Saving	1,674
% ROI	11.62





Mine Rehabilitation and Biodiversity

Since a mine can be located in a forest with complex ecology and various biodiversity. Banpu conducts a study on the environmental impacts of a mine, carefully considers the risks from mining activities, and designs a rehabilitation program before a project starts. Land use is planned and managed with utmost care to reduce possible harm on the ecological system, prevent a long-term negative impact, and preserve biodiversity in the area for the benefits of the local community.

A huge forest fire recurred to Indonesia in 2015. This is an impact factor of flora and fauna biodiversities from destroying their habitats, carbon sinks reduction, GHG emission from combustion and severe haze situation which is widely effect to local people's health.

The occurrence in Indonesia was expected to release GHG approximately 1.62 thousand million tonnes of CO₂e into the atmosphere and ranked Indonesia as the world's 4th GHG emitter (compared to the 6th in previous ranking) within 6 weeks. Indonesia's GHG emission in 2015 is expected to increased of 3 times from last year. Forest fire is also caused smog phenomenon in the widespread area. Not only in Indonesia, but also neighboring countries, such as Malaysia, Singapore, Philippines and Thailand. From its impacts, Indonesian Government had to declare a State of Emergency in 6 provinces. Based on this incident, 19 people died, more than 500,000 patients with respiratory illness and its accumulated toxic in human body which may cause long-term effect. The cooperation of several parties is essential to solve this incident. This fire is one of company external risk that is likely effect to mine rehabilitation program and health of staffs.

The coal business in Indonesia is located on Kalimantan island which covered plentiful forested area and abundant biodiversity. Presence of 12 significant species in mining area are in IUCN Red List as follows:

Species	Genus	IUCN Category
<i>Aglaia angustifolia</i>	Meliaceae	VU
<i>Dipterocarpus kunstleri</i>	Dipterocarpaceae	CR
<i>Durio dulcis</i>	Bombacaceae	VU
<i>Hopea auriculata</i>	Dipterocarpaceae	EN
<i>Hopea ferrugina</i>	Dipterocarpaceae	CR
<i>Madhuca betis</i>	Sapotaceae	VU
<i>Mangifera rubropetala</i>	Anacardiaceae	EW
<i>Mangifera similis</i>	Anacardiaceae	VU
<i>Saurauia bracteosa</i>	Actinidaceae	VU
<i>Shorea bracteolata</i>	Dipterocarpaceae	EN
<i>Shorea brunnescens</i>	Dipterocarpaceae	EN
<i>Vatica pauciflora</i>	Dipterocarpaceae	EN

EW = Extinct in the wild; CR = Critically endangered; EN = Endangered; VU = Vulnerable

While coal business in Australia uses limited and rather fixed space as we operate underground and the sites are not located in plentiful forested areas. However, there is Group-wide Biodiversity Management Strategy in order to integrate biodiversity management plan in Australia's coal operations. Additionally, the biodiversity management plans are also specified for each mine and a project study on conservation of threaten flora species by engaging with educational institution in that area.

To use land in a way that causes the least impact to the ecological system is an important challenge for mining. Therefore, Banpu conducts site exploration in an area before mining to collect initial physical and biodiversity data for mine planning and rehabilitation program that will revive the area's biodiversity and bring it closest to the original state. Mining in the areas that are habitats for threatened species with great value for the ecosystem is also avoided. This principle of land use not only helps keep the condition and ecosystem of the site closest to its original state, but also lowers the costs of mine rehabilitation after the project ends.

Overburden and waste rock are dumped back into mine pits as much and as soon as possible after a mining

activities is completed to minimize the void. Unless there is not enough space, these wastes will be disposed elsewhere as a last resort. Then, the site will be immediately reconditioned for stability and rehabilitated by the planting of ground cover and local perennials.

In 2015, our coal business owned 103,758 hectares of land, but only 20,604 hectares of which, or about 20% of the total land owned, was used for the actual mining. So far, 10,829 hectares of land, or about 53% of the total land use were rehabilitated. The rest of the land area is preserved as forests in order to preserve resources and biodiversity.

Banpu has set guidelines on mine rehabilitation and biodiversity conservation for being used across the organization. At the beginning of a project, site

exploration and master plans for mine rehabilitation are made with involvement of the local community for a sustainable future. Communities are invited to be involved during planning of community development programs so that they have a role in the rehabilitation process and can use forest resources sustainably. In addition, Banpu also checks the progress of the rehabilitation and reviews the plan regularly. Reports are submitted to related government agencies and the quality of the environment is inspected after the closing of a mine. This is to ensure that all production units can return the mining site to the communities when mines are closed.

	2013	2014	2015
Land Owned	103,953	103,758	103,595
Disturbed Area	17,255	19,561	20,604
Rehabilitated Area	8,508	9,320	10,829

Research Program for Newnes Plateau Plant

Centennial, our subsidiary in Australia, engaged the University of Queensland and the Royal Botanic Gardens at Mt Annan to research the propagation, habitats and distribution of a rare local shrub named as *Persoonia hindii*. This engagement came after consultation of Forests NSW and Office of Environment and Heritage, as the condition associated with an approval of Springvale Bore 8 and Angus Place Vent Fan development projects. The endangered species has only be found on the Newnes Plateau in NSW and was named after Peter Hind, the first person who discovered this plant 25 years ago. Aside from the taxonomic description and its habitats, there is also a little information such as its reproduction, recovery after forest fires or necessary for living, etc.

In 2013, the ecologists from the Centre for Mined Rehabilitation of the University of Queensland conducted a research on the distribution of the local species in the mine sites and Newnes Plateau. The species growth and their preferred habitat survey was performed by random sampling - strip

adaptive clustering method, an innovation which is used to specify the distribution boundary of *P. hindii*. This study also supported the hypothesis that *P. hindii* is typically rare elsewhere, but abundant in local geography on Newnes Plateau.

As result of this study, the middle of Newnes Plateau is area which observed the majority of *P. hindii*, the area has specific characteristics, elevation and other factors that were found a little elsewhere. In addition, the population of *P. hindii* is greater than 75,000 individuals and found on the eastern portion in close to shallow slopes and wetland communities. The engagement with Mt Annan Botanic Gardens has also assessed survival rate of the propagation methods, the result suggested that the survival rate from shoot cutting is relatively high.

With the knowledge and the habitat model, the research team can plan further propagation in order to conserve *P. hindii* being in its suitable habitat at Newnes Plateau where is safe and distance from potential disturbing and destroying in the near future.

A Biodiversity Management Plan at Tsant-Uul, Mongolia

In 2015, Hunnu, our subsidiary in Mongolia, collaborated with Green Initiative, a nonprofit organization (NGO), to study potential impact on biodiversity that might be occurred from our business in the future in order to develop biodiversity management plan for such area and to conduct a screening of nearby mining area to rehabilitate biodiversity additionally.

Tsant-Uul Project, a 96 million tonnes coal reserve site, located in the western part of the Gobi Desert with approximately 71-126 millimeters per year of rain falls and average temperature of 4.3-4.6 °C. Minimum and maximum temperature recorded are -36 °C and 41.3 °C, respectively. The area is classified as desert ecosystem with low biodiversity. However, some of plants and animals in that area are iconic species as well as some species are nearly extinct. Many areas in Mongolia encounter biodiversity impacts because of forest intrusion and illegal hunting.

The study has conducted a biodiversity impact assessment for all common, rare and endangered

species in order to establish preventive measures and improvement plans which resulted in the least impact, specify the critical cautious species and select nearby area with similar ecology and appropriate size to offset biodiversity impact from mining. The impacts assessment is conducted by using Geographic Information System (GIS) with results as following.

- 🌿 Biodiversity assessment before the project implementation
- 🌿 Mitigation plan and preventive measure to minimize the impacts
- 🌿 Land selection and biodiversity offset measure
- 🌿 Monitoring plan including target species
- 🌿 Action plan and budget to achieve goals and objectives in the long-run

Base on this study, we have sufficient information to develop the production planning, Standard Operation Procedure including budget to prevent and reduce the potential impacts on biodiversity through the overall project operation.





The most urgent issue in China is an air pollution in Beijing that the air quality exceeded standard especially in winter. The pollution sources are fuel combustion from power plants, industrial factories, transportation and construction. The Chinese Government has launched rigorous air quality control measures, such as the Emission Standard of Air Pollutants for Thermal Power Plants (GB 13223-2011) in 2011, which is on par with the standards in the European Union and the United States. These measures are China's attempts to concretely improve its air quality after the air pollution has caused harm not only to its people but also the country's image. These changes are challenges that business organizations have to handle, particularly those in the industrial sector that use a high amount of fuel, such as producers of iron, cement and electricity. Plants that have been operated for a long time need to study and adopt new technologies to be able to meet new regulations once they become effective.

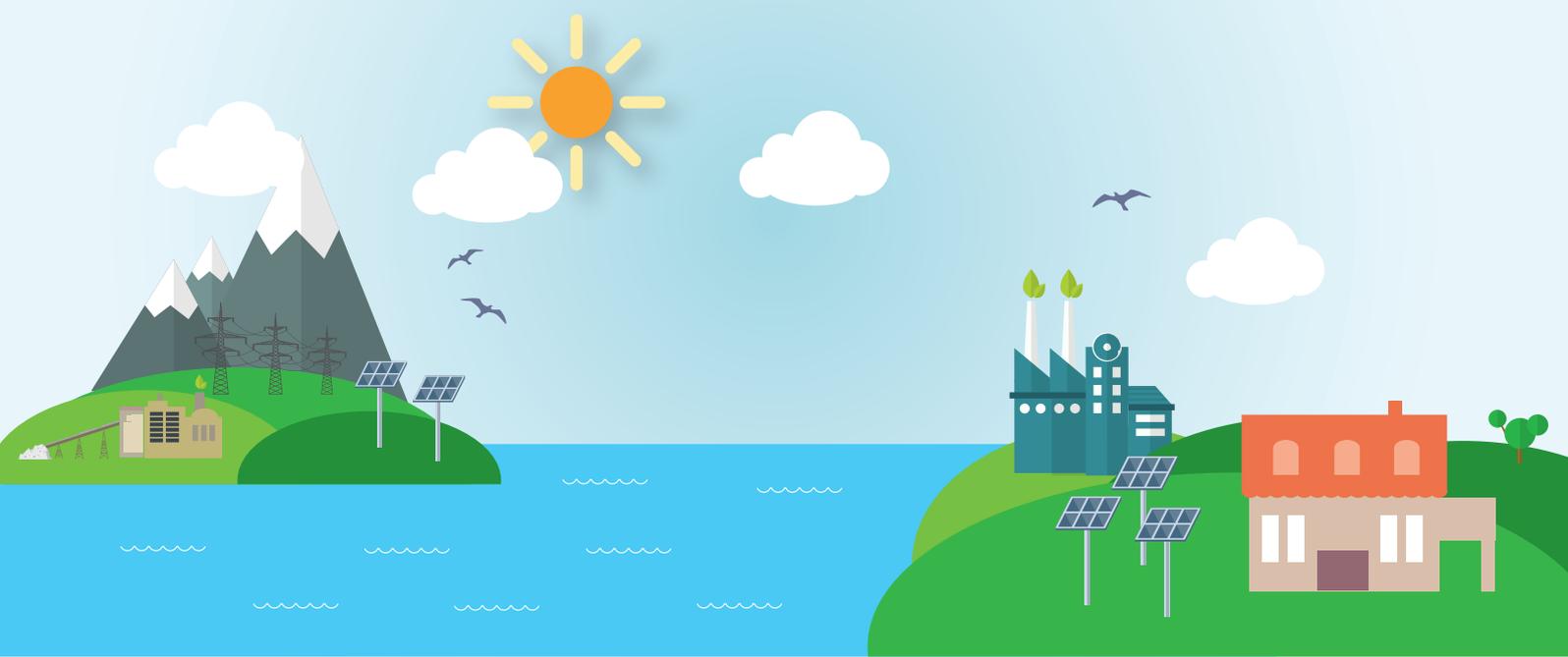
For our three combined heat and power plants in China, Banpu aims to solve the pollution problem at its source by improving the efficiency of the plants and selecting high quality coal as a fuel. Major pollutants released from the power plants include particulate matter, sulfur

dioxide, and nitrogen oxides. Banpu has made a six-year plan (2013-2018) with a budget of US\$50 million for the improvement of the air quality released from the chimneys of its power plants in China. The goal is to meet the new air quality control standard, focusing on the three main pollutants mentioned above.

In 2015, the company invested in four air quality improvement projects including denitration units at Zouping and Zhengding, which completed in May and November respectively and Desulfurization units at Luannan and Zhengding, which completed in December.

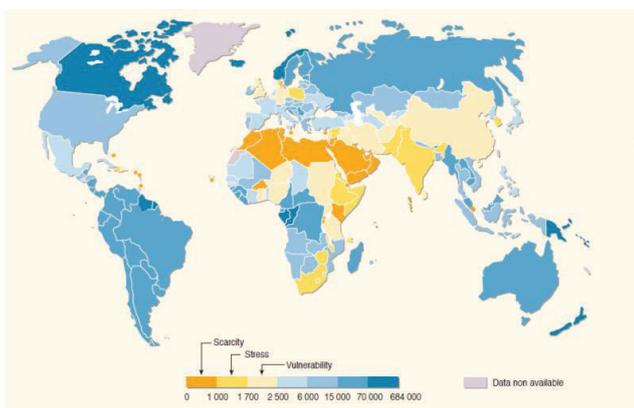
Mining activities, meanwhile, create a source of particles during coal transportation and storage. Banpu has announced the management standard on air quality management, applied to all operations. The standard focuses on prevention and mitigation at a source including its corrective actions, such as spraying water to reduce dusts and particles on hauling road and stock yard, spacing and planting trees to form wind shield, replacing transportation by trucks to conveyor, installing tire washing station and establishing the Environmental and Safety Standard for coal transportation etc.





Water Management

Water is a necessity of life, an important component of the ecosystem. For this reason, countries around the world pay attention to how water can be managed in terms of quality and quantity to sustain living. Past studies show that the amount of clean water is decreasing worldwide due partly to an increase in population, industrial expansion, and water use in agriculture. Also, climate change often result in either droughts or flood in several area.



Freshwater Availability (m^3 per person per year)
Source: UNEP/GRID-Arendel (2008)

Although our operations in Indonesia, Australia and China are not located in water-stressed areas as identified in UN World Water Development Report. Base

on water is used in our coal and power businesses, Banpu pays attention to water management including water usage reduction and water quality standard control.

Water Consumption Reduction

Power business in China consumes water in production process approximately 9 million cubic meter annually. In 2015, Banpu can reduce water in the combined heat and power plants in China about 925,000 cubic meter or 10% by process improvement as follows:

- ◆ Improve of water treatment system in all production
- ◆ Improve business operation
- ◆ Identify and improve potential leak in the production line
- ◆ Reuse of water, for example, water from Ultra-filtration, Reverse Osmosis and Ion exchange system can be reused in other process, such as spraying water on stock yard, washing trucks, watering plants and applying in air quality treatment system.

Water Reduction Program at Power Plants in China

Combined Heat and Power (CHP) plants in China have plan to continually expand production capacity and introduce new products to customers which might be significantly effect on increasing of water consumption. In 2015, Banpu thus initiated water reduction program at the power plants.

As the result of production process analysis, water treatment system was found likely to be one of production unit which consumes water at the highest proportion, compared to total volume of water consumption. The water treatment system is composed of Reverse Osmosis, Ultra-Filtration and Ion Exchange.

The implementation of water reduction program started by improving the efficiency of water quality treatment system, then, reusing wastewater from the one process to another with low water quality required. For example, wastewater from Reverse Osmosis is used for spraying on mine stockyard to control particulate matter, etc.

Since the program has been launched, Banpu can reduce the amount of water consumption more than 925,000 cubic meter from the total volume of water around 9 million cubic meter, or approximate 10% reduction.



Water Quality Standard Control

As part of mining process, rain water and onsite groundwater are pumped from production area. Such water discharged is required to have an appropriate water separation in order to separate between surface water and the water from mining process. Banpu conducts water quality analysis and remediation properly in order to treat the water to its standard prior to discharge. The treatment system includes addition of coagulation and flocculation , precipitation, wetland and water treatment plant, and filtration. This is to ensure that there will be no negative impact from the discharged water to local ecosystem and people around the area. Moreover, the treated water is reused in mining process, such as coal washing, spraying water to reduce particles and rehabilitation, to minimise water consumption.

Coal mining requires overburden removal, which can lead to the problem of sediment discharge and acid mine drainage (AMD) if environmental management is unsuitable. During such activity in mining, if some layers in the soil have the potential to generate acid when exposed to air

and water for a long time, they can affect water quality and ecosystem in the area. Water is treated to meet the surface water quality standards before returning the site to the community after mine closure. Solving the issue of acid mine drainage at its source is a crucial measure for preventing high sediment turbidity and acid mine drainage as well as minimizing possible treatment costs.

In 2015, our operations in Indonesia removed and managed over 247 million cubic meters of overburden. These are measures used to manage the environmental impacts including preservation of geological stability and soil erosion through proper mine planning and prevention of acidic water. To minimize the voids, overburden and waste rock are dumped back into mine pits as much and as soon as possible after a mine is closed. When there is not enough space, these wastes will be disposed elsewhere as a last resort. In Australia, where our operations are underground mining with little rainfall, acid mine drainage is not such a problem for our operations.

Water Management System at Newstand Recognized in Excellence Engineering Award



Newstand Colliery's Clean Water Plant and Water management was highly commended at 2015 Engineers Australia Newcastle Division Engineering Excellence Awards which provides recognition of excellence engineering to engineers and took place in Newcastle.



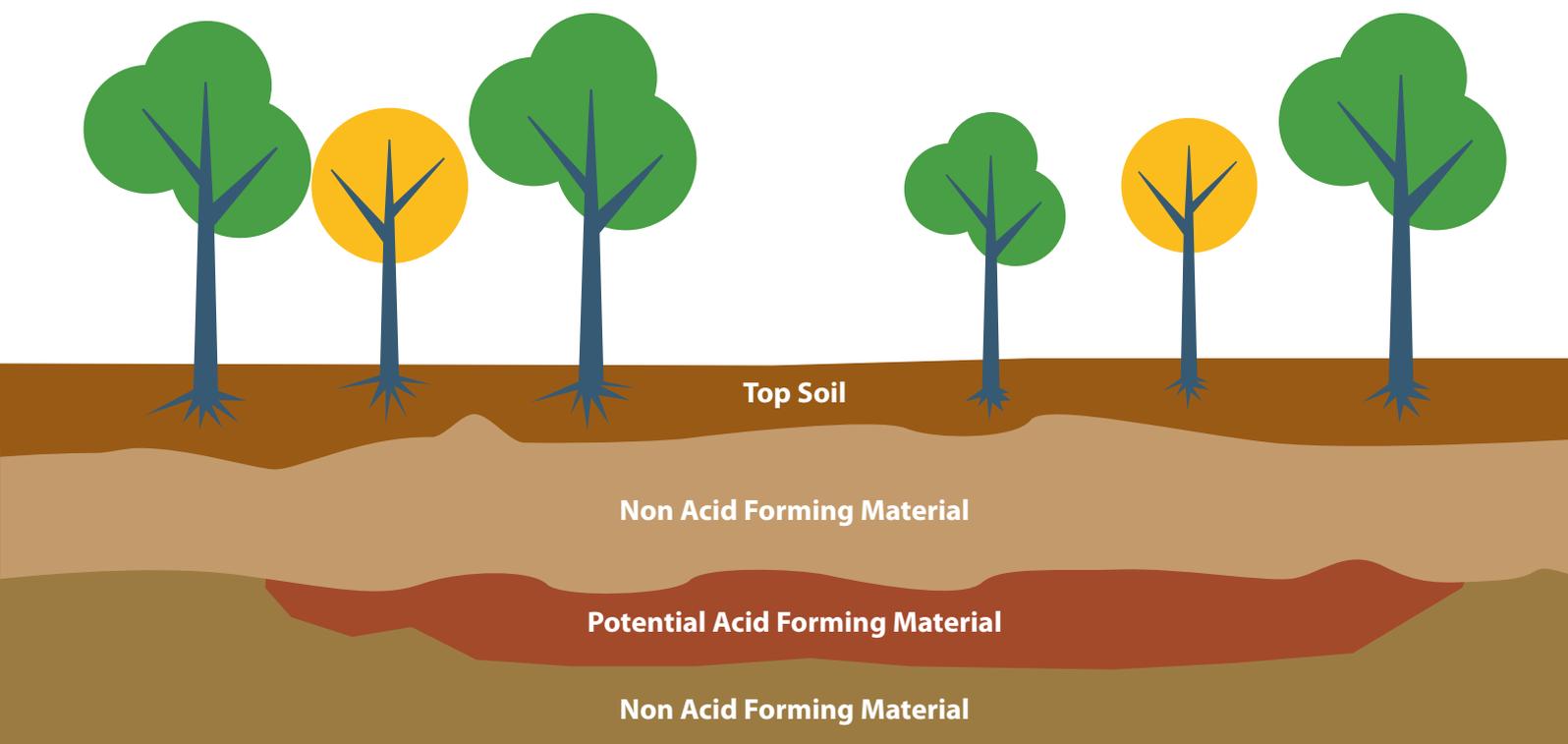
The project is also a full wastewater treatment facility with a total cost of US\$14.5 million for construction. With high technology and environmentally friendly solution to water quality challenges and suitability for coal mining's operation, this is an example of excellent project management and demonstrates a well-founded attention to detail with a strong focus on safety and risk management. An important aspect of the facility is the education area, that gives an opportunity for interested community and school groups to participate in the water management plan, in order to have understanding of sustainable water management practices along with coal mining knowledge and environmental management.

Acid Mine Drainage (AMD) Management

Banpu conducts geophysical study and soil properties by collecting data at each site for careful mine planning. The collected data is used to classify type of soil and created the geological model. This is to ensure that each project has effective mine planning, proper acid mine drainage prevention and good economic yield. Such AMD management approach has been set as standard for across all operational sites. If potential acid forming material is found, the soil from that particular area will be buried at another site on top of non acid forming material. Then, it will be compacted by another layer of non acid forming material. Top soil is then laid on top

where ground cover and local perennials are planted to prevent the potential acid forming material from being exposed to air and water that will cause acid mine drainage.

In case the acidity level exceeds the standards, quicklime will be used as additional treatment, followed by precipitation. Banpu has also adopted a Successive Alkalinity Producing (SAP) system to replace the use of quicklime in some areas, thus reducing the cost of quicklime by half.



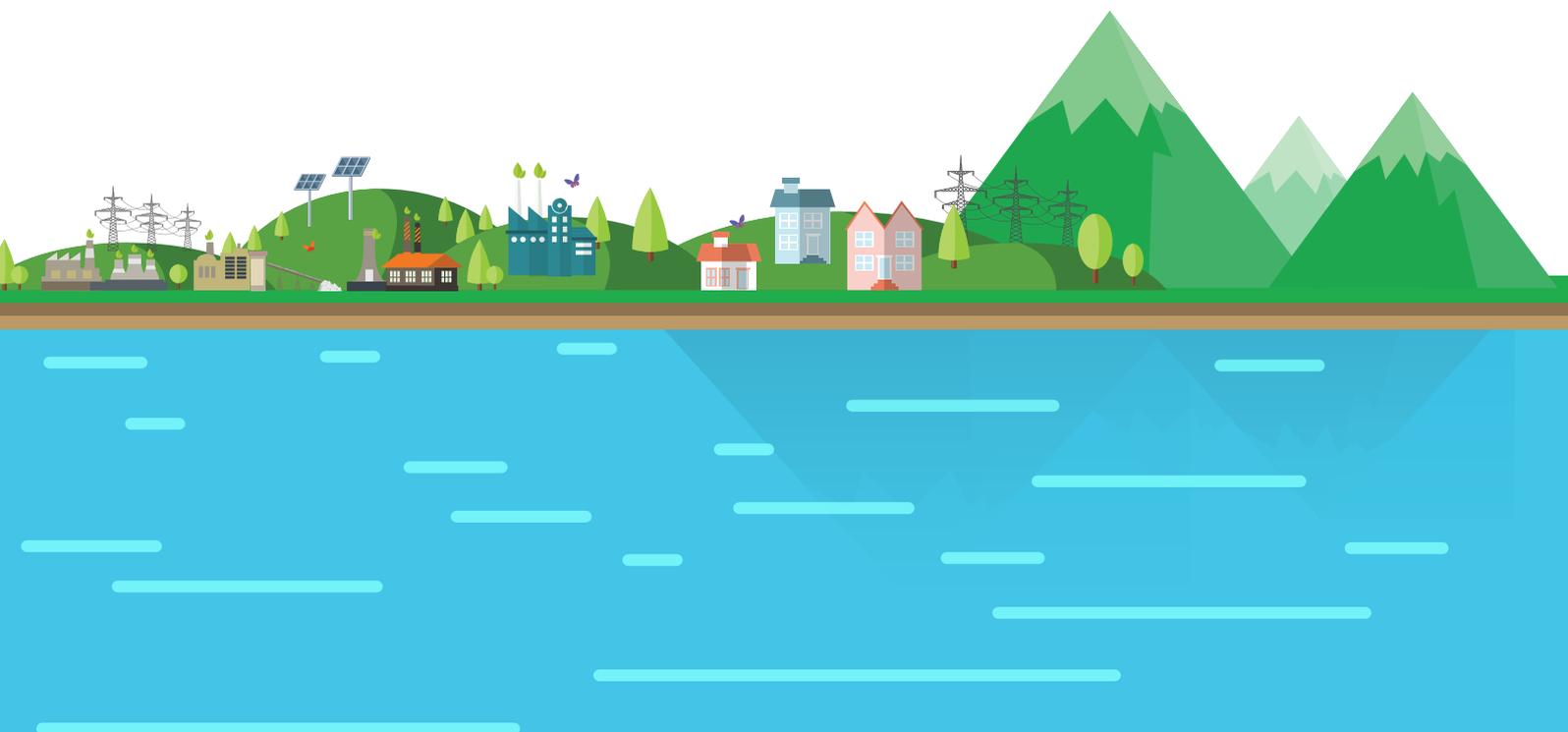
Soil Erosion and Suspended Sediment Control

Banpu set a preventive measure to control soil erosion and suspended sediment, focusing on prevention at its source as much as possible. Soil is removed as minimal as its need. Water drainage management is prepared to separate the rain water from the water used in mining process. Compaction of overburden and plantation of quick-growing cover crops are immediately done after mining process was completed to prevent soil erosion and preserve soil characteristics. If necessary, addition of some minerals and organic matters to amend soil for rehabilitation.

Banpu applies the suitable water treatment technologies for each area. In Indonesia, addition of coagulants into the water before entered to the settling pond and wetland is sufficient to treat wastewater to meet water quality standard. In some cases, such as in Australia, we constructed wastewater treatment plant due to a large amount of wastewater and a limited area.

Maintenance of water drainage and sediment management from soil erosion in the area, and wastewater from coal washing have to manage properly because they can lead to acid water. Since tailings and dirty coal from our mining have been analyzed as non-hazardous waste, thus they can be disposed in the area. In addition, water discharge from a mine is constantly inspected by internal and external agencies to ensure that it complies with required standards.

Nevertheless, in July 2015, there was an incident at Centennial's Clarence Mine in Australia involving a discharge from an emplacement area. The discharge entered the Wollangambe River. Centennial's first priority was to minimise environmental harm in what was a very challenging physical environment. Since the incident, Centennial has worked with Government regulators to manage the clean-up and investigate its causes. Centennial deeply regrets this incident and the impacts it has caused, and is reviewing its systems to ensure this type of incident will not be repeated.



Sustainability Journey at Chiangmuan Mine in Thailand

Chiangmuan mine is an open pit coal mining which was operation in the earliest stage of Banpu, located in Sa subdistrict, Chiang Muan district, Phayao province, Thailand. The mine was started operation in 1996 and has been closed since 2009. As part of mine closure plan, the mine was rehabilitated by reforestation with the local plants and mine pit was designed to be a reservoir with capacity of 21 million cubic meters. At present, there is approximately 18 million cubic meters of water in Chiang Muan's pit lake. The water quality is in line with surface water quality standard. Currently, the pit lake is an aquatic habitat and also used for water detention, called "Monkey Cheek", to prevent flood in rainy season and to preserve water for communities during dry season.

At the time of coal production processing, the ancient fossils were discovered within the mine site. There are various species associated with the historical importance and archaeological biology of Thailand such as the skeletal and teeth of the genus *Trilophodon Gomphothera*, a kind of ancient elephant which had 4 tusks, crocodiles, fish, barking deer, pigs, orangutans, turtles, shells and ancient seeds. Ages of these fossils were in the mid-Miocene epoch or prior to 13-15 million years ago. Banpu has engaged with Thai government, including both national and international research institutes to continually collect and research the such fossils.

In 2013, Banpu supported Ph.D. student in Paleontology from the Science department, Mahasarakham University, to study turtle fossil discovered from Chiangmuan mine. The study found that it is a new specie, named "Cuora Chiangmuanensis" or "Asian box turtle in Chiangmuan mine", which was the world's oldest ancestor and lived in Thailand around 12 million years ago.

In 2015, Banpu handover the collection of 65 ancient fossils to Sa Subdistrict Administration Organization (SAO), Chiang Muan district, Phayao province. The company has also reconditioned the landscape of Ban Sa Mine to promote leisure visits together with opportunities to learn about the environment and natural resources, donated buildings and supplied worth to the SAO and Phra Pariyathitham Pa Khaem Wittaya School, for education, recreational area, tourism promotion and natural reservoir that can create the sustainable land use from former site when the mining was terminated.





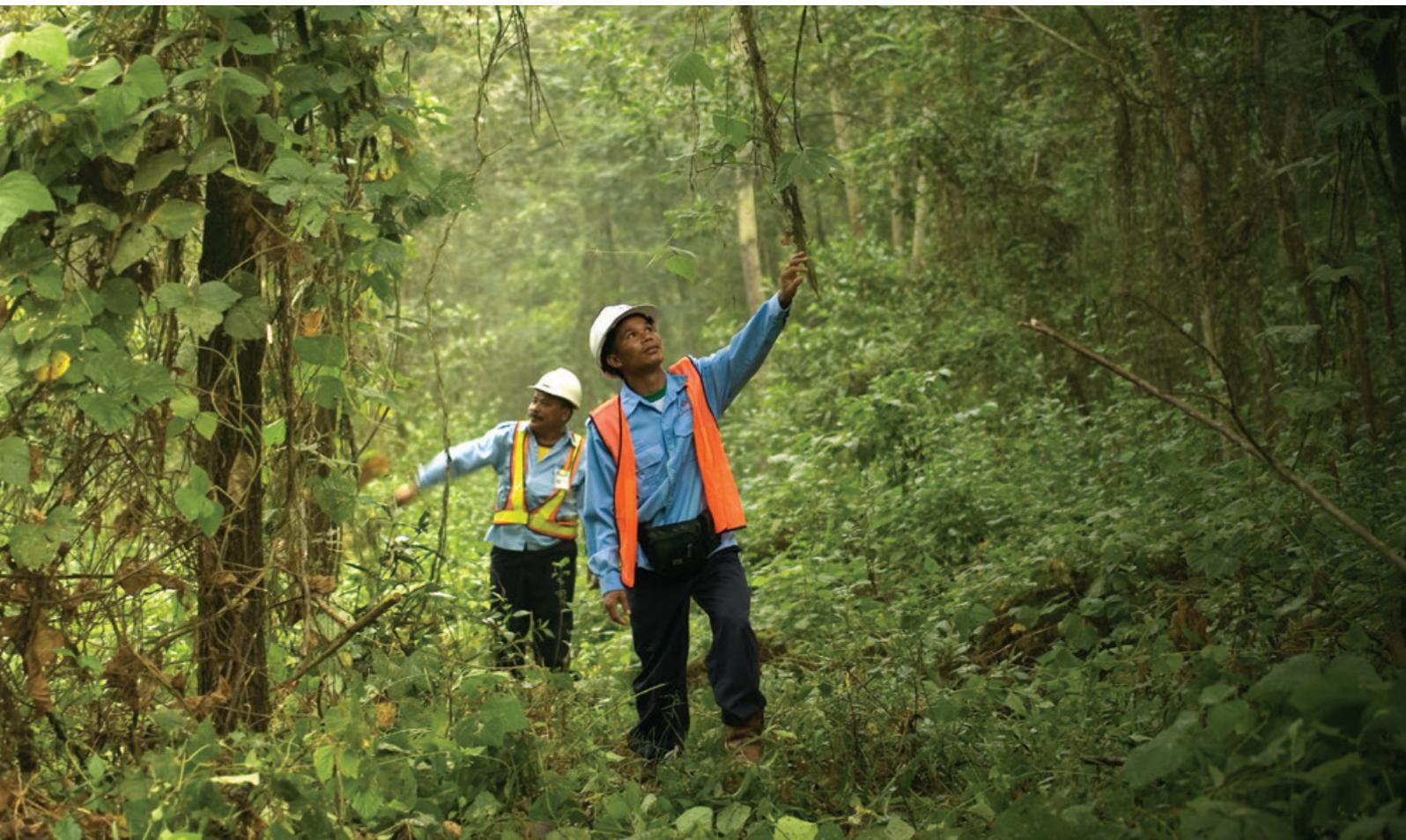
Supply Chain's Environmental Management

In regard to company's business, as the primary energy provider for other businesses, our coal customers are mainly power plants and other industries such as cement, steel, petrochemical and paper industries. For power business, products from our combined heat and power plants include electricity which sold to the government and heat distributed in the form of steam and hot water to industrial and household customers. The importance of environmental issues is not only limited to our operation, but also covering our partners in the supply chain.

Environmental management in supply chain for customer focuses on providing advice and assistance to clients in optimizing the coal utilization for ultimate result to minimize the environmental impact that may occur. On the other hand, customers seek for a

supplier that complied with international environmental management standard. Apart of disclosure in website and sustainability report, Banpu submitted its environmental management to the customer when requested.

For our contractors, the environmental risks of contractors working in our areas are protected and mitigated through the Contractor Management System (CMS). As stated in our CMS framework, we integrated environmental management system of contractor as one criteria during contractor selection. The environmental and safety performances of such contractors are also evaluated during operations. There is no complaint or incident of environmental impact related to supply chain occurred in this year.



“The 10th Power Green Camp” Make Youths Concern Environment and Learn”Biodiversity”

During October 12-19, 2015, Banpu, in collaboration with faculty of Environment and Resource Studies, Mahidol University, organized an annual youth environmental science camp, known as “The 10th Power Green Camp” with theme “Biodiversity for environmental development and sustainability” in order to raise concern about environment and biodiversity to the 10th and 11th grade students. There were 70 students across the country participated in this event.

On this occasion, Banpu staffs and their family members also joined the activities with the youths, such as trekking and exploring diversity of flora and fauna in nature from mountain through coastline at Khao Kheow and Khao Chompou wildlife sanctuary, and the Nature Education Center for Mangrove Conservation and Ecotourism in Chonburi province, and attending exhibition of the youths’ projects in environmental science.

At the same time, Banpu also selected several students with outstanding performance to participate in the educational tour at Indonesia, the world’s second highest biodiversity country, to broaden their knowledge in biodiversity from an international perspective. This could also link with biodiversity project at Bharinto and Indominco coal mines in Indonesia from the co-operation between ITM, a subsidiary of Banpu in Indonesia, and Indonesian Sciences Institute (LIPI) to conduct a conservation approach in the site reclamation among and after mining.



Participation and Membership



Organization	Status	Role	Country
Environmental Engineering Association of Thailand	Member	Meeting	Thailand
Australian Coal Association Low Emissions Technology Pty Ltd (ACALET)	Director	Meeting and submission	Australia
Coal Mining Abatement Technology Support Package (CMATSP) – Project Oversight Committee	Member	Meeting and submission	Australia
Executive Committee NSW Minerals Council	Member	Meeting and submission	Australia
NSW Minerals Council Board	Director	Meeting and submission	Australia
Coal Innovation NSW (CINSW)	Member	Meeting and submission	Australia
Australian Coal Association Limited Project (ACARP)	Director	Meeting and submission	Australia
-Underground Committee	Member		
-Research Committee	Member		
NSW Minerals Council Environment and Community Committee	Member	Meeting and submission	Australia
University of Queensland Centre for Mined Land Rehabilitation Advisory Board	Member	Meeting and submission	Australia
MCA Climate Change Committee	Member	Meeting and submission	Australia

Awards and Recognitions



Site	Award/Recognition	By
Luannan Power Plant	3in1 Quality Safety Environmental Management System certifications	The International Certification Network: IQNET and China Quality Certification Center: CQC
Zhengding Power Plant	3in1 Quality Safety Environmental Management System certifications	The International Certification Network: IQNET and China Quality Certification Center: CQC
Zouping Power Plant	3in1 Quality Safety Environmental Management System certifications	The International Certification Network: IQNET and China Quality Certification Center: CQC
	Advanced Units of Environmental Production	Local Government
Bharinto Mine	ISO 14001:2004	BSI Indonesia
	Green Certificate - PROPER	East Kalimantan Governor
	Silver Level - Environmental Management Award	Ministry of Energy and Mineral Resources Republic Indonesia - Directorate General of Mineral and Coal
Indominco Mine	ISO 14001:2004	SGS United Kingdom
	Green Certificate - PROPER	East Kalimantan Governor
	Gold Level - Environmental Management Award	Ministry of Energy and Mineral Resources Republic Indonesia - Directorate General of Mineral and Coal
Jorong Mine	Blue Level - PROPER	Ministry of Environment and Forestry of the Republic of Indonesia
	Bronze Level - Environmental Management Award	Ministry of Energy and Mineral Resources Republic Indonesia - Directorate General of Mineral and Coal
Kitadin-Embalut Mine	Blue Certificate - PROPER	East Kalimantan Governor
	Blue Level - PROPER	Ministry of Environment and Forestry of the Republic of Indonesia
	Silver Level - Environmental Management Award	Ministry of Energy and Mineral Resources Republic Indonesia - Directorate General of Mineral and Coal
Kitadin-Tandug Mayang Mine	ISO 14001:2004	SAI GLOBAL
	Bronze Level - Environmental Management Award	Ministry of Energy and Mineral Resources Republic Indonesia - Directorate General of Mineral and Coal
Turbaindo Mine	Green Certificate - PROPER	East Kalimantan Governor
	Blue Level - PROPER	Ministry of Environment and Forestry of the Republic of Indonesia
	Silver Level - Environmental Management Award	Ministry of Energy and Mineral Resources Republic Indonesia - Directorate General of Mineral and Coal

With over three decades of business operation, Banpu have a strong belief in the norm that an industry would be vigorous only when it is developed in tandem with social and environmental responsibility. We emphasis to build the balancing of business growth, community development and society within internal and external operational process. The company places the importance on business activities with “Care and accountability” in turn to all stakeholders under Community Development Policy.



To create sustainable value to communities and stakeholders, the Company has integrated local government’s regulations and international best practices into corporate community strategy. Since 2008, the Company combined the eight Millennium Development Goals (MDGs) with community development plan in Indonesia.



In regards to the conclusion of the Millennium Development Goals at the end of 2015 and the launch of the Sustainable Development Goals (SDGs) in September 2015, the Company integrates SDGs into corporate strategy for community development. The Company has strong belief in strengthening and empowering the communities so that they become self-reliant in the long run. In return, Banpu gains its trust and the “social license to operate” in order to conduct the business smoothly and sustainably.

With our business’s different characteristic in each country, the Company managed the communities in various location with different approach. In previous year, the issues that the Company and our stakeholders concerned are :

-  Community Development
-  Community Engagement

Community Development



Banpu realized that it is nature of our coal business that coal reserve will decrease when starting operation and our mining operation comes to closure stage after a period of time. Even all of our operational sites in Indonesia are in Kalimantan Island, we understand that each community is unique. So, our community development program is divided into three phases aligning with mining stage, namely Pre-mining stage, Mining stage, and Post mining stage.



Pre-Mining Stage

In this stage, the Company emphasizes on understanding and experience sharing between the Company and surrounding communities for sustainable issues as follows:

- 🏠 Conduct stakeholder analysis to be used for engagement guideline setup
- 🏠 Study social mapping as basic information for formulating community development plan
- 🏠 Set up community development master plan covering from pre-mining stage to post mining stage
- 🏠 Set up Community Consultative Committee (CCC), comprising of representatives from government, community, and company to set up and monitor the projects
- 🏠 Give fair compensation in case that mining area is overlapping with community area

Mining Stage

During operational phase, the Company work closely with Community Consultative Committee (CCC) to develop knowledge and experience for maturity building of the communities by:

- 🏠 Conduct stakeholder perception survey to identify attitude of communities and related parties
- 🏠 Prepare a long-term strategic plan and a annual plan
- 🏠 Review a community development project plan through the bi-annually Community Development Officer Forum (CDO)
- 🏠 Build capability of Community Consultative Committee (CCC) in areas of management including specific skills
- 🏠 Closely follow up on all stage of operations to ensure that targets would be achieved

Post-Mining Stage

To ensure that communities can be self-reliance as targeted, the Company continually give community supports after operational phase with details as follow:

- 🏠 Prepare post-mining community development plan with the community and related authorities prior to mine closure as parts of mine closure plan
- 🏠 Continue community development support for at least 3 years after mine closure to enable smooth and sustainable operation of the community projects
- 🏠 Collaborate with related government agencies and local academic institutes to help maintain supports for the community development projects in an ongoing basis



Management Approach

A great emphasis is placed on the community engagement from pre-mining stage to understand communities' needs and to build engagement and trust of each other. Moreover, the Company also emphasizes on cooperation with local government and contractors about project development to bring sustainable value to the communities.

The Company established the Standard Operation Procedure of Community Development as practice for community staffs at all operational sites.

The Company provides Community Development Officer (CDO) as coordinator to work in each area to ensure the effectiveness of our community development program. In practice, Community Development department will coordinate with related departments to plan, review and evaluate with a target to minimize impact that might occur during operation.

Apart of management review through the monthly meeting, our managements also regularly take a visit to monitor progress of the project. This is to ensure the effectiveness of the project and also an opportunity to meet local leaders to assure the Company's approach on community development.

Engagement System

Our focus is placed on community engagement starting from project development plan to set the objectives and to ensure community's needs, and in line with government development plan. The Company coordinated with communities to set up the Community Consultative Committee (CCC). The CCC consists of community leaders, company's representatives, and local authorities. An annual meeting is held to jointly create a community development plan that responds to the real needs of the community and aligns with the local government's development plans. In addition, the effectiveness of the program is reviewed and evaluated at the meeting while problems and alternative solutions are discussed for continuous improvement of the development plan.



Millennium Development Goals



To create sustainable value to communities and all stakeholders, Eight Millennium Development Goals (MDGs), of which consists (1) Eradicate extreme poverty and hunger, (2) Achieve universal primary education, (3) Promote gender equality and empower women, (4) Reduce child mortality, (5) Improve maternal health, (6) Combat HIV / AIDS, Malaria, and other diseases, (7) Ensure environmental sustainability, and (8) Global partnership for development, were integrated into corporate community development strategy of coal business in Indonesia since 2008.

Sustainable Development Goals



As Millennium Development Goals come to conclusion at the end of 2015, United Nations with intention to continue the sustainable development, has announced the Seventeen Sustainable Development Goals (SDGs) from September 2015 to August 2030 (fifteen years), of which comprises (1) No poverty, (2) No hunger, (3) Good health and well-being, (4) Quality Education, (5) Gender equality, (6) Clean water and sanitation, (7) Affordable and clean energy, (8) Decent work and economic growth, (9) Industry, Innovation, and Infrastructure, (10) Reduced inequalities, (11) Sustainable cities and communities, (12) Responsible consumption and production, (13) Climate action, (14) Life below water, (15) Life on land, (16) Peace, justice, and strong institutions, (17) Partnerships for the goals.

The Company has integrated the SDGs into corporate community development strategy in the late of 2015, to encourage community to be sustainable and self-reliant. In return, Banpu would gain its trust and the “social license to operate” in order to conduct the business smoothly and sustainably.

Stakeholder Perception Survey

To gather the attitude with company and community development program from community and related stakeholders and as one of the communication channels to community, the Company frequently conducted Stakeholder Perception Survey. The survey results was used to improve our community development program for most benefit to both the Company and the communities. The recent Stakeholder Perception Survey has been conducted in the end of 2015 at Trubaindo Mine in Indonesia,

Capability Building of Community Development Officer

In addition to employee’s training program from Human Resources Department, the specified training programs were provided to Community Development Officer (CDO) to develop CDO’s competency in various fields. For instance, in 2015, the Company provided training on ‘Social & Culture Issues in Communities’ and ‘Motivation Techniques’, including site visit to the successful community development programs.



Community Development in Supply Chain

As nature of the coal business, the Company has been working with contractors for main operational activities such as overburden removal and coal hauling. These contractors are well-equipped with personnel and machine. Therefore, the Company has cooperated with these contractors in community development programs to share knowledge and experiences, as well as develop project plan. This is to ensure the alignment and effectiveness of all community development projects, including avoid overlap between each project. For example, machine maintenance training program, the Company provided training facilities and transportation. And the contractors, who have more proficient, provided trainers. With this cooperation, the program results in an increase in beneficiaries in both quality and quantity.

In Indonesia, the Company cooperated with our main contractors such as PAMA, Riung Mitra, RML, and CPA to conduct community development programs. There were several coordinated programs in the past year, for example, economic development and income generation programs, occupational development training programs, education development programs, and health and sanitation development programs etc.,.



Quality Assurance Review

To ensure the effectiveness of community development activities, including compliance with our internal standard operating procedure, Quality Assurance Review (QAR) is put in place. The QAR in community development activities was firstly implemented Indonesia in 2015.

Women's Empowerment

The Company places the emphasis on women's involvement and roles in community development activities, especially in economics of family and community. There are many activities that directly set up for house-wife to development their capabilities, such as marketing, management as well as leadership skill.

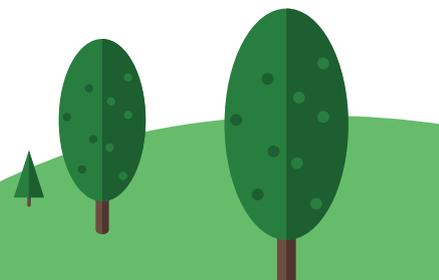


Public Safety for Community

The Company focuses to encourage public safety for community, especially, public safety of community from illegal mining in areas of company's concession. The Company has cooperated with local authorities to prevent and to build collective coalition within surrounding communities.

Indigenous Development

There are 23 Dayak villages in the area of Trubaindo and Bharinto Mines where majority of the local communities are of Dayak, who are the Indigenous people of Kalimantan island. Our coal mines gives employment opportunity for them to gain income for their family. In addition, the Mines also conducted capability development training courses to the youth and working-age adults, such as truck driving training program, heavy machine maintenance program, small machine and motorcycles repairing program. Those who passed the training would have opportunity for employment and higher payment. Moreover, they were given priority to work with our mining contractors.



Community Development Officer Forum (CDO Forum)

Community Development Officer Forum or CDO Forum is part of our community development plan in Indonesia under Community Development Policy. The CDO Forum is placed to give opportunity for every mines to present their previous year performance, future community development plan, including knowledge and experience sharing. Moreover, the Company provided the external speakers to share his knowledge in term of community development. Therefore, the connectivity and engagement have been bonded among CDO of all mines in Indonesia.

Since 2004, the Company has annually conducted CDO Forum, the recent forum was on 18-20 January 2016 at Jakarta, Indonesia. There were 38 participants, consisting of 14 executives, 24 community development officers from Bangkok Office, Jakarta Office, and all mines.

The challenges has been continued for community development. Especially, when the mine operation come to closure stage. With proper preparation and good coordination are the key for community development officer to achieve our target.



6-Dimension Community Development Projects

With our Community Development Policy, international practice standard, Millennium Development Goals, and Sustainable Development Goals, the Company established the goals for community development programs in Indonesia with 6 dimensions as follows:

- Economic Development and Income Generation** for building sustainable economic in long term future to community
- Educational Development** to promote community's capability through education
- Basic Infrastructure Development** as basic requirement for living
- Health and Sanitation Development** for better health of community, especially pregnant women and pre-school children
- Environmental Conservation** for promote a good sense of environment
- Social, Cultural Promotion and Community Relation** to strengthen relationship and to understand the way of local life.



The Company allocated the budget for each type of the community development programs concerning its importance and need. In 2015, the ratio of each type is as follow:

Type of Projects	Percentage (%)
Economic Development and Income Generation	20
Educational Development	18
Basic Infrastructure Development	9
Health and Sanitation Development	9
Environmental Conservation	7
Social, Cultural Promotion and Community Relation	36

In 2015, our efforts to improve quality of life and the community are as follows:



1. Economic Development and Income Generation

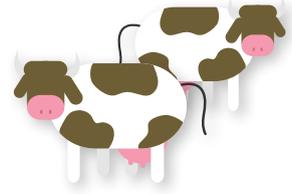


Mine	Activities
Indominco Mine	<ul style="list-style-type: none">  Supports farming into two development activities: (1) Rice seed production center for supplying to the government agencies for further distribution to other farmers and selling to farmers for plantation. (2) Rice mill for the farmers. In addition, the mine also sponsors the packages with printed logos and promotes sale distribution.  Supports planting. This includes growing vegetables, rubber trees, oil palm, and various kinds of fruits for local markets.  Supports seaweed farming. More than 200 participants from 3 villages have joined this project.  Supports animal raising. This includes cattle, goats and fish. In this year, the mine support a group of locals to be fish-breeding provider for selling.  Supports food processing. This project encourages the housewife groups to make their own brand and package of food products.  Supports dress-making group for clothing training. They could produce the mine staff uniform as additional income for their family  Supports seeding for selling to the mine in order to use it in rehabilitation project.  Supports driving training program which is three months program. There were twenty locals passed the program and they could earn a living as drivers.  Cooperates with contractors to organize various training programs, such as maintenance of heavy machine and repairing motorcycles so that the participants will have more employment opportunities.  Opens a retail shop in Bontang as another distribution channel for its members to sell their local products.
Kitadin-Embalut Mine	<ul style="list-style-type: none">  Supports farming with new techniques for 2 villages  Develops 8 farmers to produce a good rice seeds and supply to the government agencies for further distribution to other farmers. The mine also supports growing of other plants such as vegetables, sweet corn, and builds cassava-processing plant that support farmers to sell their product for higher price.  Supports animal raising. For cattle, after success in promoting cattle raising, there are 8 farmer groups of cattle consisting of 117 members. For broiler chicken, there are 5 farmer groups consisting of 112 members and producing more than 200,000 chickens a year.

Mine	Activities
Kitadin-Embalut Mine	<ul style="list-style-type: none"> 🏠 Supports fish raising, there are 59 members with 1,495 floating cages. 🏠 Supports fish breeding for sell that can increase their income and be helpful to the farmer to find fish breeds easily. 🏠 Supports goat raising, there are 15 farmers and duck raising. 🏠 Supports food processing. The mine supports a housewife group to make processed food products and traditional sweets as additional income of their families. 🏠 Establishes the Community Development Learning Center of Kitadin-Embalut Mine with great success in occupational promotion and community relations. It has become a visit place by the government agencies, other private companies, universities and farmers to learn best practices in community development work. In addition, it is a training place for a year-round internship of trainee students.
Trubaindo Mine	<ul style="list-style-type: none"> 🏠 Supports farming. The mine supports growing of vegetables, watermelons and rubber trees. In this year, the mine has supported for Agarwood plantation at Damai Seberang, not only for additional income but also to prevent of suppressing of forest. 🏠 Supports animal raising. The mine supports floating-cage fish raising in 4 villages, fish raising in plastic-lined ponds in another 3 villages, including raising of broiler chickens, layer chicken, and local species pigs which are very popular among local consumers. 🏠 Supports integrated farming system in Basiq village that promotes community to adopt the system. 🏠 Supports Handicrafts. the mine supports a group of housewives to make handicrafts to increase their income.
Jorong Mine	<ul style="list-style-type: none"> 🏠 Supports orchard and banana farming. 🏠 Supports farming of oyster mushrooms in 1 village which consists of 18 members. 🏠 Supports Animal raising. The mine supports fish raising in 4 village of 5 groups. It also offers training in making fish feed and provides equipment to the farmers. In addition, the mine also supports goat raising. In this year, the mine includes chicken raising in the community development plan, expecting to produce 15,000 chicken yearly. This farming is derived from market analysis, communities' competency and resources. 🏠 Supports food processing. The mine supports the housewife group to make a number of processed food products. 🏠 Supports Bio-fertilizer production. There are 4 groups with a total annual production of 300 tonnes. 🏠 Supports Batik sasirangan. The mine supports the house wife group to make this batik as a source of additional income.



Integrated Farming System at Kitadin-Embalut's Ex-Mining Area

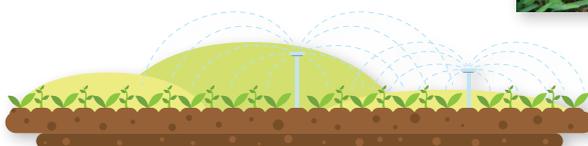


One of rehabilitation projects in post-mining stage of Kitadin-Embalut Mines where has been operated since 2011, is Integrated farming System located in Tenggara Seberang, Embalut City. This projects was run by an agricultural group called “Mandari Bersama” under cooperation of Kitadin-Embalut Mine’s community development plan and Agricultural Technology Assessment Center of East Kalimantan City.

This integrated farming system is the farming in ex-mining area that was designed for environmental friendly planting and fishery, such as organic fertilizer, biogas. In general, ex-mining land might has inadequate fertility and are not suitable for planting. With the integrated farming system, by using of organic fertilizer made by animal dung and humus that can produce within local area. This results in increasing fertility in land and adding the economics value.

Apart from soil improvement, this system also promoted communities to use lands for maximizing benefit and to produce manures that achieved the “Zero Waste” concept. With this achievement of “Mandari Bersama” brings another agricultural group establishing called “Bumi Lestari”.

As outcome from this Integrated Farming System, there were 71 tonnes of organic fertilizers produced in 2015 (increased by 33 tonnes from the amount of 2013), 1,200 kilograms of biogas in system running stage in 2014. Moreover, the plantation is expanded to cover animal food plants, such as bean, rice, corn, and cassava.



2. Educational Development



Mine	Activities
Indominco Mine	<ul style="list-style-type: none"> Organizes the non-formal education program for people in 3 villages for 5 consecutive years. This non-formal education program gives more opportunity to those who are left out from school and increases their opportunities for employment and further study in university level. Organizes training to improve teaching skills of teachers around the mine and sponsored transportation for around 70 students in the areas without public transportation.
Bharinto Mine	<ul style="list-style-type: none"> Supports scholarship to 8 students to study a nursing college and encourage them to work in their own community. In 2015, the mine also granted 2 scholarships to students, total 7 students from 2014, from community to study in the faculty of education at Murawarman University in Samarinda. Organizes a workshop for 100 teachers from 11 schools to improve their teaching skills as well as to support for educational materials and books for school libraries.
Kitadin-Embalut Mine	<ul style="list-style-type: none"> Organizes a safety knowledge competition in 21 schools to emphasis safety matters to student.
Trubaindo Mine	<ul style="list-style-type: none"> Provides educational materials and books to school libraries and supports primary schools to participate in Green School Project, hosted by Ministry of Education.
Jorong Mine	<ul style="list-style-type: none"> Provides educational materials and books to schools and religion schools.



3. Basic Infrastructure Development



Mine	Activities
Indominco Mine	<ul style="list-style-type: none"> Expends a water supply plant at Santan Tengah Village, increasing by 50 houses from 150 houses last year. Builds concrete road to connect the agricultural area in Suka Damai village which was helpful to 50 farmers. Builds market place for Santan Ulu village to sell their products.
Kitadin-Embalut Mine	<ul style="list-style-type: none"> Works with contractors to repair roads and bridges, and builds water way for 70 hectare of agricultural areas. Therefore, the flooding area was able to be used for cultivation. Builds water supply system in farming area of Kerta Buana village that supported 26 farmers to plant rice even in long period of drought.
Trubaindo Mine	<ul style="list-style-type: none"> Works with contractors to build concrete road to Lambing village, Repairs wooden bridge in Muara village, and repairs connecting roads of many villages. Constructs the Dayak Art and Cultural Center in Dilang Puti village.



4. Health and Sanitation Development



Mine	Activities
Indominco, Kitadin-Embalut, Trubaindo, Bharinto, and Jorong Mines	<ul style="list-style-type: none"> Organizes consecutively training in maternal and child health care for women having children under school age. Provides free supplementary foods to mother and malnutrition children in every village.
Trubaindo and Bharinto Mines	<ul style="list-style-type: none"> Organizes mobile medical units for students at their schools for medical check-up. Promote well-being and solve the students' health problems, such as campaigns to promote tooth brushing and dental care, louse prevention. There were 300 students participated the campaign.
Bharinto Mine	<ul style="list-style-type: none"> Organizes training course for healthcare officers and assistants at health care centers. There was 44 trainees joined the training.
Indominco, Kitadin-Embalut, Trubaindo, Jorong and Bharinto Mines	<ul style="list-style-type: none"> Organizes mobile medical units to provide annual health check-up for people in 37 villages.

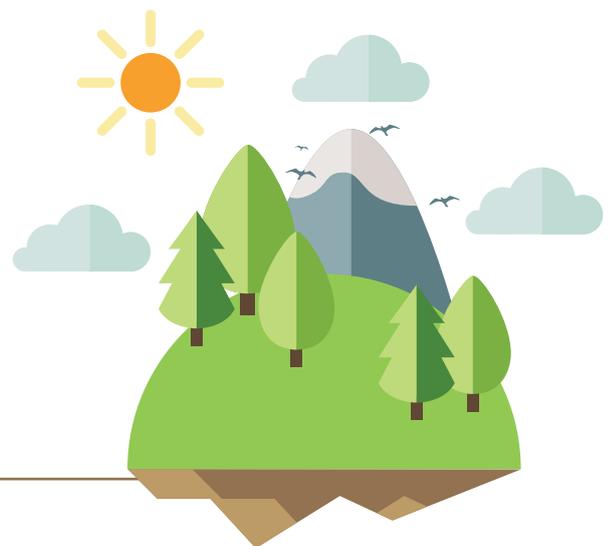
With consistent promotion and development of healthcare, health problems is decreasing. For instance, statistics of children under 5-year ages who have weight below standard in company operation area in Indonesia, was at 10.5% comparing to Indonesia average was at 30%.



5. Environmental Conservation



Mine	Activities
Indominco Mine	<ul style="list-style-type: none"> 🏠 Works with the local community on the mangrove protection in the area of 77 hectares, focusing on community involvement and environmental awareness building. In this year, there was expanded for another 1 village project. 🏠 Organizes the coconut coir rope project in Santan Tengah. Due to the village planted many of coconut and the locals frequently dumped coconut coir into canal.
Kitadin-Embalut Mine	<ul style="list-style-type: none"> 🏠 Works with the local community on the waste bank. This resulted in decreasing of waste and environmental awareness building.



6. Social, Cultural Promotion and Community Relation



Mine	Activities
All the mines in Indonesia	<ul style="list-style-type: none"> 🏠 All mines in Indonesia under the company have a reserve fund to be spent in times of crisis, such as fire and flood incidents. The fund is used to buy food and other necessities for distribution in the initial phase of a disaster and for home repairing afterwards. 🏠 The Community Development Officers (CDOs) at every mine regularly participate in community activities such as religious rites, cultural activities and other activities to strengthen the relationship.
Trubaindo Mine	<ul style="list-style-type: none"> 🏠 Organizes employee voluntary yearly activities with participation of a number of employees. These activities include tree planting, church and classroom painting, English and mathematic classes, building safety awareness of students, and cooking classes for housewives.



Community Engagement

Given the specific characteristics of mine's location, some mine is located close to local communities. For example, 2 of Centennial mines in Australia are within 1 kilometre of residential areas. The majority of Centennial's employees live in surrounding of mine site and close to communities. Therefore, The Company places a great emphasis on community engagement.

Engagement Channel

The Company has system to collect and analyse information of community since the pre-mining stage to ensure the most understanding of community's need. The result in clear understanding lead to the effectiveness of both our operations and community engagement programs.

In operational phase, the Company consistently encouraged engagement of communities and related stakeholders. To understand their needs, the Company also provides many activities to gain opinions and suggestions from communities and coordinates with local authorities through community relationship activities as follows;

-  Establish Community Consultative Committee (CCC), of consists government, community, and company representatives to set up project plan and to review and monitor.
-  Set up strategy of engagement and consultation in every project.
-  Conduct Community Information Forum to set up project guideline, technical report and to gain feedback.
-  Participate and support for local activities and organization.
-  Disclose of company information through website.
-  Provide communication channels via telephone and email, especially for communities.

Moreover, the Company also publicizes operation activity information and project progress in cooperation with community through local newspaper. For instance, Centennial, our subsidiary in Australia, has been publishing project progress and community activities in local newspaper such as the Lighgow Mercury, Mudgee Guardian and Lakes Mail. ITM, our subsidiary in Indonesia, has been publishing for bi-monthly magazine called 'Bubuhan Bulletin' to communicate company activities to the community and local government.



Compliant Channel

The Company provides clear compliant channel with different in each mine site as unique in geography, economics, society, and culture in each location. The Company set target to achieve zero compliant from the community across all operations.

Indigenous Engagement

The Company places a great emphasis on arts, culture, tradition reservation of indigenous community, and development of indigenous engagement. In Indonesia, the Company supports for elders to pass on their performances and traditions to youths, encourages tradition in many occasions, handicrafts, crave, and cloth of indigenous community, as well as constructs the indigenous identity building to communities.

In Australia, The Company developed and implemented an engagement process for Aboriginal heritage, assessment, and management. This Northern and Western Region Aboriginal Cultural Heritage Management Plan (ACHMP) was developed in consultation with Aboriginal group and government. This approach has been set up as a standard process for undertaking cultural significance assessments that can then be used to inform mine planning and design decisions and to ensure a robust assessment of potential impacts to cultural values.

In 2015, the Western Region commenced the ACHMP Sub-Committee. Representatives of all Aboriginal Groups were invited to attend meetings in related to mining operations and the issues of Aboriginal heritage sites were also discussed.

Tsant Uul Mine Tour in Mongolia



Tsant Uul Mine has continually organized community engagement activities to build the strong relationship with the nearby community. One of which is Tsant Uul Mine Tour that gives the community an opportunity to visit our mining process on site. The site visit started with a brief introduction of the mine before entered to visit the actual production, and finally had lunch together.

This program is quarterly conducted. The last site visit conducted with 22 participants from the secondary school of Bayan-Ovoo. From this program, the communities understand the mining process including our measures to prevent and mitigate environmental impact. The mine also got some counsels to initiate the community development programs.

Airly Mine Extension Project



Centennial emphasizes the importance of engagement and community relationship building. With its mission in business operation, stakeholder engagement process is set up systematically in every mine sites to create acceptance from community that leads to sustainable growth. A certain example in 2015 in community engagement is Airly Mine Extension Project.

The Airly Mine Extension Project, located in the Capertee Valley, west of Lithgow NSW, undertook a thorough community consultation and engagement strategy to:

- 🏠 Maintain to develop trust in operations with local communities, Indigenous groups, non-government organizations, and other stakeholders,
- 🏠 Contribute to good working relationships with local communities, and other stakeholders by proactively anticipating and addressing concerns about the Project, and
- 🏠 Respond to community concerns by incorporating community feedback into the Environmental Impact policy, as well as ongoing environmental compliance.

Centennial also provides consultation with community to communicate technical information and overview of project as follows;

- 🏠 Mine design; Subsidence Impact Assessment and Ground and Surface Water Assessment,
- 🏠 Aquatic Ecology; Terrestrial Ecology – Flora and Fauna; and Cultural Heritage Impact Assessments,
- 🏠 Visual Amenity; Air Quality; Noise and Vibration Impact Assessments and Rehabilitation Strategy, and
- 🏠 Social and Economic Impact Assessment.

In this consultation, Centennial and communities got mutual agreement that the extension project was well designed as follows;

- 🏠 No requirement to purchase property as a means of managing impact on social amenity,
- 🏠 No impact on surrounding land use or viability of agricultural production,
- 🏠 No significant change to the economic profile of the community except for the potential for incidental economic benefit via localised spending,
- 🏠 No change to the social structure of the area, and
- 🏠 No change to how residents or visitors utilise the area.

The consultation and engagement were comprehensive and robust and the project has got a well acceptance from the community.



Participation and Membership



Organization	Status	Role	Country
Corporate Forum for Community Development (CFCD)	Member	Seminar and Training	Indonesia
Aboriginal Cultural Heritage Management Sub-Committee (ACHM Sub-Committee)	Member	Meetings, workshops, submissions	Australia
Executive Committee NSW Minerals Council	Member	Meetings, workshops, submissions	Australia
NSW Minerals Council Board	Director	Meetings, workshops, submissions	Australia
NSW Minerals Council Environment and Community Committee	Member	Meetings, workshops, submissions	Australia
Westpac Rescue Helicopter Service	Director	Meetings, workshops, submissions	Australia
Newcastle Knights Pty Ltd	Director	Meetings, workshops, submissions	Australia



Awards and Recognitions

Site	Awards/Recognitions	By
Kitadin-Embalut Mine	Platinum Award in Smart Company	Kutai Kartanegara Regency, East Kutai Province, Indonesia
	Platinum Award in Innovation Company	
	Silver Award in Green Company	
	The 1 st winner of Best Executive in Community Development Management	
Jorong Mine	Platinum Award in Economics and Community Empowerment as targeted item no. 6 of SDGs	Ministry of People Development and Culture in cooperation with CFCD, Indonesia
Bharinto Mine	Platinum Award in Sponsorship of consumable water to communities as targeted item no. 6 of SDGs	
Indominco Mine	Platinum Award in Sponsorship of consumable water to communities as targeted item no. 6 of SDGs	
	Platinum Award in Environmental Promotion as targeted item no. 12 of SDGs	
	Gold Award in Maternal and Child Health Promotion as targeted item no. 12 of SDGs	
	The 2 nd winner of Best Executive in Community Development Management	
	The 2 nd winner of Community Development Officer	





PERFORMANCE

DATA

PERFORMANCE DATA

Economic Performance

Data	Unit	2013	2014 [§]	2015
Revenues	USD thousand	3,350,891	3,144,931	2,476,578
Profit from Operation	USD thousand	283,326	295,693	160,266
Net Profit	USD thousand	78,025	82,735	(42,776)
Gross Profit Margin	%	31.33	32.02	32.48
Interest Coverage Ratio	Times	4.53	5.50	5.81
Net Debt to Equity Ratio	Times	1.10	1.18	1.40

[§] Adjusted data

Tax Payment – by Country

Data	Unit	2013	2014**	2015
Indonesia				
• Net Profit before Tax	USD thousand	321	263	139
• Tax expense (from P&L)*	USD thousand	(61)	(62)	(76)
• Corporate Income Tax Rate	%	25	25	25
China				
• Net Profit before Tax	USD thousand	40	43	59
• Tax expense (from P&L)*	USD thousand	(13)	(13)	(16)
• Corporate Income Tax Rate	%	25	25	25
Banpu ^(a)				
• Net Profit before Tax	USD thousand	278	250	82
• Tax expense (from P&L)*	USD thousand	(90)	(94)	(98)
• Corporate Income Tax Rate	%	20-25	20-25	20-25

* Tax expense (from P&L) consisting of Corporate Income Tax, Withholding Tax and Deferred Tax.

** Extraordinary item: A reversal of deferred income tax asset for the Minerals Resource Rent Tax in Australia of \$24 million. The Minerals Resource Rent Tax Repeal and Other Measures Act ("the repeal of MRRT Act") was enacted on 5 September 2014. Therefore, the deferred tax asset net of income tax consequences for the Minerals Resource Rent Tax in Australia was written off. As a result, the Australian subsidiaries have no tax obligations in the future.

^(a) Consolidated

Economic Distributions

Stakeholder	Unit	2013	2014 [§]	2015
Suppliers & Contractors ^(b)	USD thousand	1,763,849	1,563,105	1,137,075
Public Sector ^(c)	USD thousand	415,097	372,515	337,305
Shareholders ^(d)	USD thousand	123,439	96,120	91,810
Employee ^(e)	USD thousand	311,210	354,196	346,890
Financial Institutions ^(f)	USD thousand	126,694	131,541	130,197
Community, Society and Environment ^(g)	USD thousand	21,396	26,101	24,112

^(b) Estimated from Cost of Sales less Employee Expense, Depreciation and Amortization

^(c) Includes Royalty Fee, Corporate Income Tax, Local Maintenance Tax, Property Tax, Specific Business Tax and Other Taxes

^(d) Dividends Paid

^(e) Includes Salary, Wage, Welfare, Provident Fund Contribution and Employees Development Expense

^(f) Includes Interest Expense, Financial Expense

^(g) Includes Expense for Community Development, Environment and Land Compensation

People

Data	Unit	2013	2014	2015
Employee – Total	Person	6,268	6,167	5,505
Employee – by Country				
• Thailand	%	6.7	6.7	5.5
• Indonesia	%	48.7	51.2	49.7
• China	%	16.2	14.7	16.1
• Australia	%	28.4	25.3	25.6
• Mongolia ⁽ⁱ⁾	%	-	2.2	2.5
• Singapore and Japan ⁽ⁱ⁾	%	-	-	0.5
Employee – by Gender				
• Male	%	87.7	86.6	85.9
• Female	%	12.3	13.4	14.1
Employee – by Nationality				
• Thai	%	6.7	6.6	7.2
• Indonesian	%	48.5	51.1	48.6
• Chinese	%	16.1	14.7	16.0
• Australian	%	28.5	25.4	25.7
• Mongolia ⁽ⁱ⁾	%	-	2.1	2.3
• Others	%	0.2	0.2	0.2
Employee – by Age ⁽ⁱ⁾				
• Under 30	%	-	-	20.0
• 30-39	%	-	-	38.7
• 40-49	%	-	-	27.5
• Over 50	%	-	-	13.8
Employee – by Type				
• Permanent	%	93.5	95.9	94.9
• Temporary	%	6.5	4.1	5.1
Employee – by Level				
• Senior Management	%	0.7	0.8	0.9
• Middle Management	%	5.0	5.1	5.6
• Junior Management	%	24.9	27.8	29.1
• Staff and Supervisor	%	69.4	66.3	64.4
Turnover rate – Total	%	-	-	5.5
Turnover rate – Voluntary	%	-	-	1.7
Turnover rate – by Country				
• Thailand	%	11.7	15.3	10.1
• Indonesia	%	9.6	6.7	1.5
• China	%	7.6	7.4	5.7
• Australia	%	6.0	16.7	12.5
• Mongolia ⁽ⁱ⁾	%	-	12.3	5.3
Average Hours of Training per Year – by Country ^(k)				
• Thailand	Hrs/Employee	28.8	62.8	36.8
• Indonesia	Hrs/Employee	22.1	33.4	37.9
• China	Hrs/Employee	32.0	33.4	24.5
• Australia	Hrs/Employee	-	-	-
• Mongolia	Hrs/Employee	-	-	-

Data	Unit	2013	2014	2015
Average Hours of Training per Year – by Level ^(k)				
• Senior Management	Hrs/Employee	19.7	54.4	35.6
• Middle Management	Hrs/Employee	35.8	41.4	32.1
• Junior Management	Hrs/Employee	37.0	53.6	52.1
• Staff and Supervisor	Hrs/Employee	22.4	32.2	24.0
Return to work after parental leave – by Country ^(l)				
• Thailand	%	89	75	100
• Indonesia ^(l)	%	-	89	90
• China	%	100	92	100
• Australia ^(l)	%	-	100	80
• Mongolia ^(l)	%	-	100	33
Percentage of employees covered by collective bargaining agreements				
• Indonesia	%	81	88	92
• Australia ^(l)	%	-	-	76

^(l) Starting to consolidate data since 2014

^(l) Starting to consolidate data since 2015

^(k) Exclude data of Australia and Mongolia due to reporting system under standardization

Occupational Health & Safety

Data	Unit	2013	2014	2015
Number of Fatal Injury	Person	3	1 ^(o)	1
Number of Fatal Injury – by Type				
• Employee	Person	1	0	0
• Contractor	Person	2	1 ^(o)	1
Injury Frequency Rate (IFR) – Total ^(p)				
Injury Frequency Rate (IFR) – by Type ^(p)	Person/million man-hour	0.34	0.41	0.39
• Employee	Person/million man-hour	0.45	0.60	0.75
• Contractor	Person/million man-hour	0.32	0.38	0.34
Injury Frequency Rate (IFR) – by Country				
• Thailand	Person/million man-hour	0	0	0
• Indonesia	Person/million man-hour	0.35	0.39	0.40
• China	Person/million man-hour	0	1.03	0
• Australia ^(q)	Person/million man-hour	-	-	-
• Mongolia ⁽ⁿ⁾	Person/million man-hour	-	-	0.66
Lost Time Injury Frequency Rate (LTIFR) – Total ^{§ (p)}				
Lost Time Injury Frequency Rate (LTIFR) – by Type ^{§ (p)}	Person/million man-hour	0.29	0.25	0.18
• Employee	Person/million man-hour	0.34	0.60	0.38
• Contractor	Person/million man-hour	0.28	0.19	0.15

Data	Unit	2013	2014	2015
Lost Time Injury Frequency Rate (LTIFR) – by Country [§]				
• Thailand	Person/million man-hour	0	0	0
• Indonesia	Person/million man-hour	0.30	0.22	0.19
• China	Person/million man-hour	0	1.03	0
• Australia ^(a)	Person/million man-hour	-	-	-
• Mongolia ⁽ⁿ⁾	Person/million man-hour	-	-	0

[§] Adjusted data from last report

⁽ⁿ⁾ Starting to consolidate data from Mongolia since 2015

^(a) Non-operational accident

^(p) Not include data of Australia due to reporting system under standardization

^(q) Not applicable due to reporting system under standardization

Environment

Data	Unit	2013	2014	2015
Production – Coal	Million Tonnes	42.80	44.45	41.15
Production – Electricity	GWh	1,496	1,375	1,456
Production – Steam	TJ	15,309	13,036	14,424
Energy Consumption	TJ	50,713	44,461 ^(f)	41,831 ^(k)
• Direct Energy	TJ	49,551	43,286 ^(f)	41,667 ^(k)
• Indirect Energy	TJ	1,162	1,175 ^(f)	164 ^(k)
Direct Energy – by Fuel Type				
• Diesel	%	33	33	27 ^(k)
• Coal	%	67	67	73 ^(k)
• Gasoline	%	0.03	0.04	0.01 ^(k)
Indirect Energy – by Source				
• Electricity	%	100	100	100 ^(k)
GHG Emissions	Million Tonnes CO ₂ e	5.74	5.24 ^(f)	3.96 ^(k)
• Direct GHG Emissions (Scope 1)	%	95	95 ^(f)	96 ^(k)
• Indirect GHG Emissions (Scope 2)	%	5	5 ^(f)	4 ^(k)
Direct GHG Emissions (Scope 1)				
• Indonesia	Million Tonnes CO ₂ e	1.94	1.82	1.25
• Australia	Million Tonnes CO ₂ e	1.49	1.38	0.73 ^(k)
• China	Million Tonnes CO ₂ e	2.03	1.75	1.84
Indirect GHG Emissions (Scope 2)				
• Indonesia	Tonnes CO ₂ e	1,017	994	1,197
• Australia	Million Tonnes CO ₂ e	0.28	0.28	0.14 ^(k)
• China	Million Tonnes CO ₂ e	0	0	0
GHG Emissions Intensity (Scope 1 & Scope 2)				
• Indonesia	Tonnes CO ₂ e /Tonnes	0.0600	0.0576	0.0457
• Australia	Tonnes CO ₂ e /Tonnes	0.1004	0.0856 ^(f)	0.0982 ^(k)
• China	kg CO ₂ e /kWh	0.3526	0.3570	0.3373
Water Consumption				
• Indonesia	Million m ³	15.34	21.21	17.09
• Australia	Million m ³	4.38	4.84	4.93
• China	Million m ³	9.25	7.76	7.88

Data	Unit	2013	2014	2015
Water Recycled/Reused				
• Indonesia	Million m ³	N/A	N/A	N/A
• Australia	Million m ³	0.29	0.33	0.23
• China	Million m ³	1.35	1.04	168.68
Water Discharge				
• Indonesia	Million m ³	N/A	N/A	N/A
• Australia	Million m ³	14.39	17.94	19.22
• China	Million m ³	0.45	0.40	0.46
Compliance Status – Effluents ^(u)				
• pH	%	100	100	100
• TSS	%	100	100	100
• Fe	%	100	100	100
• Mn	%	100	100	100
Compliance Status – Emissions ^(v)				
• SO _x	%	100	100	100
• NO _x	%	100	100	100
• Particulate Matter	%	100	100	100
Air Quality ^(v) – SO _x				
• Average Concentration	mg/m ³	203	159	75
• Amount	kilotonnes	1.94	1.26	0.81
Air Quality ^(v) – NO _x				
• Average Concentration	mg/m ³	320	332	79
• Amount	kilotonnes	0.22	2.65	0.91
Air Quality ^(v) – Particulate Matter				
• Average Concentration	mg/m ³	29	21	12
• Amount	kilotonnes	0.28	0.14	0.14
Mining Overburden	Million m ³	347.96	295.33	247.06
Hazardous Waste				
• Hazardous Waste – Recycled	Tonnes	5,233	5,493	3,891
Non-Hazardous Waste ^(u)				
• Non-Hazardous Waste – Recycled	Tonnes	2,536	2,169	2,414
Ash from power plant ^(v)				
• Ash from power plant – Recycled	Tonnes	637,583	509,566	605,462
• Ash from power plant – Recycled	Tonnes	N/A ^(s)	509,566	580,741
Significant Spills				
• Number of Spill	Case	4	1	3
• Volume	Liter	1,210	158	180,452
Land Own ^(u)				
	Hectare	103,953	103,758	103,595
Disturbed Area ^(u)				
• During the Year	Hectare	1,316	2,306	1,043
• Accumulate	Hectare	17,255	19,561	20,604
Rehabilitated Area ^(u)				
• During the Year	Hectare	1,137	812	1,509
• Accumulate	Hectare	8,508	9,320	10,829

Data	Unit	2013	2014	2015
Ratio of Disturbed Area to Land Own	%	16.6	18.9	19.9
Ratio of Rehabilitated Area to Disturbed Area	%	49.3	47.6	52.6
Number of Operations in, adjacent to, or containing portions of Designated Protected Areas				
• Inside	No. of operation	4	4	4
• Adjacent	No. of operation	3	3	3
• Contain Portion	No. of operation	1	1	1
Number of Operations in, adjacent to, or containing portions of High Biodiversity Areas				
• Inside	No. of operation	2	2	2
• Adjacent	No. of operation	1	1	1
• Contain Portion	No. of operation	4	4	4
Significant Fine for Non-Compliance in Environmental Aspects				
• Number of Fine	Case	0	0	0
• Amount of Fine	USD	0	0	0

⁽¹⁾ Adjusted data of Australia to cover the whole year 2014 from the original of only January-June 2014

⁽²⁾ Data not available due to reporting system under standardization

⁽³⁾ Excludes mining related materials such as tailings and waste rock

⁽⁴⁾ Data only for coal business

⁽⁵⁾ Data only for power business

⁽⁶⁾ Due to a different reporting year between the Company (a calendar year) and Australian operation (a June fiscal year), data of Australia incorporated only audited data during January-June, not include data for July-December which are under the audit process by Australian Federal Government





GRI CONTENT

INDEX

GRI CONTENT INDEX



Materiality Disclosures
Banpu Public Company Limited

Apr 2016
Service

This Sustainability Report was prepared according to the GRI G4 Guidelines at In accordance - core level and completed the Materiality Disclosure Service by GRI.

Indicator	Description	Page		Note	External Assurance
		Sustainability Report	Annual Report		
GENERAL STANDARD DISCLOSURES					
Strategy and Analysis					
G4-1	Statement from the most senior decision-maker of the organization	10-11	6-13		-
G4-2	Description of key impacts, risks, and opportunities	10-11, 13	40-54		-
Organizational Profile					
G4-3	Name of the organization	Cover			-
G4-4	Primary brands, products, and services	23-28			-
G4-5	Location of the organization's headquarters	Back Cover			-
G4-6	Number of countries where the organization operates, and names of countries where either the organization has significant operations or that are specifically relevant to the sustainability topics covered in the report	6-9			-
G4-7	Nature of ownership and legal form		18-19		-
G4-8	Markets served	23-28	26-38		-
G4-9	Scale of the organization	6-9, 131	18-19, 39		-
G4-10 ^E	Total number of employees by type	132			-
G4-11 ^E	Percentage of total employees covered by collective bargaining agreements	133			-
EU1 ^E	Installed capacity, broken down by primary energy source and by regulatory regime	25-26			-
EU2 ^E	Net energy output broken down by primary energy source and by regulatory regime	25-26			-
EU3 ^E	Number of residential, industrial, institutional and commercial customer accounts	25-26			-
EU4 ^E	Length of above and underground transmission and distribution lines by regulatory regime	25-26			-
EU5 ^E	Allocation of CO ₂ e emissions allowances or equivalent, broken down by carbon trading framework	-			-
G4-12	Describe the organization's supply chain	23-28, 81, 106, 114			-
G4-13	Significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain	12		No significant changes during the reporting period	-
G4-14	Whether and how the precautionary approach or principle is addressed by the organization	13-16, 27-28, 39, 67, 72, 87, 110,	40-54		-
G4-15	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or which it endorses	14, 16, 32-33, 113, 116			-
G4-16	Membership in associations	36, 53, 64, 85, 108, 128			-
Identified Material Aspects and Boundaries					
G4-17	All entities included in the organization's consolidated financial statements or equivalent documents	12	18-19		-
G4-18	Process for defining report boundaries and content	12			-
G4-19	Material Aspects identified in the process for defining report content	22, 39, 54, 67, 72, 87, 110			-
G4-20	For each material Aspect, report the Aspect Boundary within the organization	12			-
G4-21	For each material Aspect, report the Aspect Boundary outside the organization	12			-
G4-22	Effect of any restatements of information provided in previous reports, and the reasons for such restatements	12		No restatement in 2015	-
G4-23	Significant changes from previous reporting periods in the Scope and Aspect Boundaries	12		No significant changes from previous reporting periods	-

Indicator	Description	Page		Note	External Assurance
		Sustainability Report	Annual Report		
Stakeholder Engagement					
G4-24	List of stakeholder groups engaged by the organization	18-21			-
G4-25	Basis for identification and selection of stakeholders with whom to engage	18-21			-
G4-26	Organization's approach to stakeholder engagement	18-21	63-66		-
G4-27	Key topics & concerns and how the organization has responded	18-21			-
Report Profile					
G4-28	Reporting period for information provided	12			-
G4-29	Date of most recent previous report			Sustainability Report 2014	-
G4-30	Reporting cycle	12		Annual	-
G4-31	Contact point for questions regarding the report or its contents				-
G4-32	a. 'in accordance' option the organization has chosen b. GRI Content Index c. Reference to the External Assurance Report	12, 139-148			-
G4-33	Organization's policy and current practice with regard to report assurance	12			-
Governance					
G4-34	Governance structure of the organization	29	22-25		-
G4-35	Process for delegating authority for economic, environmental and social topics from the highest governance body to senior executives and other employees	29-32	22-24		-
G4-36	Report whether the organization has appointed an executive-level position or positions with responsibility for economic, environmental and social topics, and whether post holders report directly to the highest governance body	29-32	22-24		-
G4-37	Processes for consultation between stakeholders and the highest governance body on economic, environmental and social topics	33	63, 66		-
G4-38	Composition of the highest governance body and its committees	29	22		-
G4-39	Report whether the Chair of the highest governance body is also an executive officer	29	22		-
G4-40	Nomination and selection processes for the highest governance body and its committees, and the criteria used for nominating and selecting highest governance body members	32	25		-
G4-41	Processes for the highest governance body to ensure conflicts of interest are avoided and managed	32-33	66		-
G4-42	Highest governance body's and senior executives' roles in the development, approval, and updating of the organization's purpose, value or mission statements, strategies, policies, and goals related to economic, environmental and social impacts	29	22-23		-
G4-43	Measures taken to develop and enhance the highest governance body's collective knowledge of economic, environmental and social topics		22-23		-
G4-44	Processes for evaluation of the highest governance body's performance with respect to governance of economic, environmental and social topics and Actions taken in response to the evaluation	30-31	71		-
G4-45	Highest governance body's role in the identification and management of economic, environmental and social impacts, risks, and opportunities	29	22-23		-
G4-46	Highest governance body's role in reviewing the effectiveness of the organization's risk management processes for economic, environmental and social topics	29	22-23		-
G4-47	Frequency of the highest governance body's review of economic, environmental and social impacts, risks, and opportunities	30	22-23		-
G4-48	Highest committee or position that formally reviews and approves the organization's sustainability report and ensures that all material Aspects are covered	15		Sustainable Development Committee	-
G4-49	Process for communicating critical concerns to the highest governance body	29, 33	53-54		-
G4-50	Nature and total number of critical concerns that were communicated to the highest governance body and the mechanism(s) used to address and resolve them	13-15	55		-

Indicator	Description	Page		Note	External Assurance
		Sustainability Report	Annual Report		
G4-51	Remuneration policies for the highest governance body and senior executives	30	24		-
G4-52	Process for determining remuneration	30			-
G4-53	Report how stakeholders' views are sought and taken into account regarding remuneration	30			-
G4-54	Ratio of the annual total compensation for the organization's highest-paid individual in each country of significant operations to the median annual total compensation for all employees (excluding the highest-paid individual) in the same country	-			-
G4-55	Ratio of percentage increase in annual total compensation for the organization's highest-paid individual in each country of significant operations to the median percentage increase in annual total compensation for all employees (excluding the highest-paid individual) in the same country	-			-

Ethics and Integrity

G4-56	Organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics	5, 32-33, 49-50	61-71		-
G4-57	Internal and external mechanisms for seeking advice on ethical and lawful behavior, and matters related to organizational integrity	32-33	61, 66-69		-
G4-58	Internal and external mechanisms for reporting concerns about unethical or unlawful behavior, and matters related to organizational integrity, such as escalation through line management, whistleblowing mechanisms or hotlines	32-33	61, 66-69		-

SPECIFIC STANDARD DISCLOSURES

Economic

Economic Performance

G4-DMA	Disclosures on Management Approach		13, 28-29		-
G4-EC1 ^M	Direct economic value generated and distributed	131			-
G4-EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change	92-95	46		-
G4-EC3	Coverage of the organization's defined benefit plan obligations			2015 Financial Statements, page155-162	-
G4-EC4	Financial assistance received from government	-			-

Market Presence

G4-DMA	Disclosures on Management Approach	39-65			-
G4-EC5	Ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation	42		Entry level wage of Banpu is higher than local minimum wage at significant locations of operation with an equal opportunity to employees regardless of gender.	-
G4-EC6 ^M	Proportion of senior management hired from the local community at significant locations of operation	-			-

Indirect Economic Impacts

G4-DMA	Disclosures on Management Approach	110-112	72-77		-
G4-EC7	Development and impact of infrastructure investments and services supported	110-128	72-77		-
G4-EC8	Significant indirect economic impacts, including the extent of impacts	110-128	72-77		-

Procurement Practices

G4-DMA	Disclosures on Management Approach	21	45		-
G4-EC9	Proportion of spending on local suppliers at significant locations of operation	-			-

Availability and Reliability

G4-DMA ^E	Disclosures on Management Approach	25-26			-
EU10 ^E	Planned capacity against projected electricity demand over the long term, broken down by energy source and regulatory regime	25-26			-

Demand-Side Management

G4-DMA ^E	Disclosures on Management Approach	25-26			-
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Indicator	Description	Page		Note	External Assurance
		Sustainability Report	Annual Report		
Research and Development					
G4-DMA ^E	Disclosures on Management Approach	25-26			-
Plant Decommissioning					
G4-DMA ^E	Disclosures on Management Approach	-			-
System Efficiency					
EU11 ^E	Average generation efficiency of thermal plants by energy source and by regulatory regime	-			-
EU12 ^E	Transmission and distribution losses as a percentage of total energy	-			-
Environmental					
Materials					
G4-DMA ^E	Disclosures on Management Approach	N/A		Not material for a commodity business	-
G4-EN1 ^E	Materials used by weight or volume	134-135			-
G4-EN2 ^M	Percentage of materials used that are recycled input materials	N/A		As a producer of raw materials, we do not use recycled input materials.	-
Energy					
G4-DMA	Disclosures on Management Approach	91-93	48-49	Management approach of Energy aspect is part of Climate Change.	-
G4-EN3	Energy consumption within the organization	134			-
G4-EN4	Energy consumption outside of the organization	-		Data are collected for logistics but they are not publicly reported.	-
G4-EN5	Energy intensity	134			-
G4-EN6	Reduction of energy consumption	134			-
G4-EN7	Reductions in energy requirements of products and services	27			-
Water					
G4-DMA ^E	Disclosures on Management Approach	100	49	Not material since all operations are not located in water-stressed areas as identified in UN World Water Development Report.	-
G4-EN8 ^E	Total water withdrawal by source	134-135			-
G4-EN9	Water sources significantly affected by withdrawal of water	100		There is no water sources significantly affected by withdrawal of water.	-
G4-EN10	Percentage and total volume of water recycled and reused	135			-
Biodiversity					
G4-DMA ^{M,E}	Disclosures on Management Approach	96-97			-
G4-EN11	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	136			-
G4-EN12 ^{M,E}	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	96-97			-
MM1 ^M	Amount of land (owned or leased, and managed for production activities or extractive use) disturbed or rehabilitated	97, 135			-
EU13 ^E	Biodiversity of offset habitats compared to the biodiversity of the affected areas	-			-
G4-EN13 ^M	Habitats protected or restored	96-98			-
G4-EN14	Total number of IUCN red list species and national conservation list species with habitats in areas affected by operations, by level of extinction risk	96			-
MM2 ^M	Number and percentage of total sites identified as requiring biodiversity management plans according to stated criteria, and the number (percentage) of those sites with plans in place	96-97			-

Indicator	Description	Page		Note	External Assurance
		Sustainability Report	Annual Report		
Emissions					
G4-DMA ^M	Disclosures on Management Approach	99	49-50		-
G4-EN15 ^E	Direct greenhouse gas (GHG) emissions (scope 1)	134			-
G4-EN16 ^E	Energy indirect greenhouse gas (GHG) emissions (scope 2)	134			-
G4-EN17	Other indirect greenhouse gas (GHG) emissions (scope 3)	-			-
G4-EN18	Greenhouse gas (GHG) emissions intensity	91, 134			-
G4-EN19	Reduction of greenhouse gas (GHG) emissions	91, 134			-
G4-EN20	Emissions of ozone-depleting substances (ODS)	-			-
G4-EN21 ^{M,E}	NO _x , SO _x , and other significant air emissions	135			-
Effluents and Waste					
G4-DMA ^{M,E}	Disclosures on Management Approach	101, 103	49		-
G4-EN22 ^E	Total water discharge by quality and destination	135			-
G4-EN23 ^{M,E}	Total weight of waste by type and disposal method	135			-
MM3 ^M	Total amounts of overburden, rock, tailings, and sludges and their associated risks	135			-
G4-EN24 ^M	Total number and volume of significant spills	135			-
G4-EN25	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel convention2 annex i, ii, iii, and viii, and percentage of transported waste shipped internationally	-		There is no waste under the terms of the Basel convention2 annex i, ii, iii, and viii.	-
G4-EN26	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the organization's discharges of water and runoff	-		There is no water bodies or related habitats significantly affected by the organization's discharges of water and runoff.	-
Products and Services					
G4-DMA	Disclosures on Management Approach	27-28			-
G4-EN27	Extent of impact mitigation of environmental impacts of products and services	27-28			-
G4-EN28	Percentage of products sold and their packaging materials that are reclaimed by category	-			-
Compliance					
G4-DMA	Disclosures on Management Approach	67-71			-
G4-EN29	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	71, 136			-
Transport					
G4-DMA	Disclosures on Management Approach	N/A		Not a material issue	-
G4-EN30	Significant environmental impacts of transporting products and other goods and materials for the organization's operations, and transporting members of the workforce	-			-
Overall					
G4-DMA	Disclosures on Management Approach	87-88			-
G4-EN31	Total environmental protection expenditures and investments by type	131			-
Supplier Environmental Assessment					
G4-DMA	Disclosures on Management Approach	106			-
G4-EN32	Percentage of new suppliers that were screened using environmental criteria	-			-
G4-EN33	Significant actual and potential negative environmental impacts in the supply chain and actions taken	106			-
Environmental Grievance Mechanisms					
G4-DMA	Disclosures on Management Approach	87-88			-
G4-EN34	Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms	106			-

Indicator	Description	Page		Note	External Assurance
		Sustainability Report	Annual Report		
Social: Labor Practices and Decent Work					
Employment					
G4-DMA ^{M,E}	Disclosures on Management Approach	39-47			-
G4-LA1 ^E	Total number and rates of new employee hires and employee turnover by age group, gender and region	132			-
EU15 ^E	Percentage of employees eligible to retire in the next 5 and 10 years broken down by job category and by region	132			-
EU17 ^E	Days worked by contractor and subcontractor employees involved in construction, operation & maintenance activities	-			-
EU18 ^E	Percentage of contractor and subcontractor employees that have undergone relevant health and safety training	-			-
G4-LA2	Benefits provided to full-time employees that are not provided to temporary or parttime employees, by significant locations of operation	-			-
G4-LA3	Return to work and retention rates after parental leave, by gender	133			-
Labor/Management Relations					
G4-DMA ^M	Disclosures on Management Approach	49, 52			-
G4-LA4	Minimum notice periods regarding operational changes, including whether these are specified in collective agreements	-			-
MM4 ^M	Number of strikes and lock-outs exceeding one week's duration, by country	47			-
Occupational Health and Safety					
G4-DMA ^M	Disclosures on Management Approach	72-73, 79			-
G4-LA5	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs	-			-
G4-LA6 ^{M,E}	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender	74, 133-134			-
G4-LA7	Workers with high incidence or high risk of diseases related to their occupation	-			-
G4-LA8	Health and safety topics covered in formal agreements with trade unions	-			-
Training and Education					
G4-DMA	Disclosures on Management Approach	44-47			-
G4-LA9	Average hours of training per year per employee by gender, and by employee category	132-133			-
G4-LA10	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	43			-
G4-LA11	Percentage of employees receiving regular performance and career development reviews, by gender and by employee category	42			-
Diversity and Equal Opportunity					
G4-DMA	Disclosures on Management Approach	13, 16, 39			-
G4-LA12	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	29			-
Equal Remuneration for Women and Men					
G4-DMA	Disclosures on Management Approach	39			-
G4-LA13	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation	-			-
Supplier Assessment for Labor Practices					
G4-DMA	Disclosures on Management Approach	N/A		Not a material issue	-
G4-LA14	Percentage of new suppliers that were screened using labor practices criteria	-			-
G4-LA15	Significant actual and potential negative impacts for labor practices in the supply chain and actions taken	-		There is no significant actual and potential negative impacts for labor practices in the supply chain.	-

Indicator	Description	Page		Note	External Assurance
		Sustainability Report	Annual Report		
Labor Practices Grievance Mechanisms					
G4-DMA	Disclosures on Management Approach	47			-
G4-LA16	Number of grievances about labor practices filed, addressed, and resolved through formal grievance mechanisms	47			-
Social: Human Rights					
Investment					
G4-DMA	Disclosures on Management Approach	13, 16, 39			-
G4-HR1	Total number and percentage of significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	-		All significant contractors are fully complied with the local labor laws and Code of Conduct.	-
G4-HR2	Total hours of employee training on human rights policies or procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained	-			-
Non-discrimination					
G4-DMA	Disclosures on Management Approach	13, 16, 39			-
G4-HR3	Total number of incidents of discrimination and corrective actions taken	47			-
Freedom of Association and Collective Bargaining					
G4-DMA ^{ME}	Disclosures on Management Approach	47			-
G4-HR4	Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights	-		The company will not interfere such activities and strictly handle it in accordance with the relevance law, rules and regulations.	-
Child Labor					
G4-DMA	Disclosures on Management Approach	47			-
G4-HR5	Operations and suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor	-			-
Forced or Compulsory Labor					
G4-DMA	Disclosures on Management Approach	47			-
G4-HR6	Operations and suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor	-			-
Security Practices					
G4-DMA	Disclosures on Management Approach	16		As part of Human Rights Policy	-
G4-HR7	Percentage of security personnel trained in the organization's human rights policies or procedures that are relevant to operations	-		All operational employees including security personnel are trained as part of company regulations.	-
Indigenous Rights					
G4-DMA ^M	Disclosures on Management Approach	126			-
G4-HR8	Total number of incidents of violations involving rights of indigenous peoples and actions taken	126		There is no incidents of violations involving rights of indigenous people.	-
MM5 ^M	Total number of operations taking place in or adjacent to Indigenous Peoples' territories, and number and percentage of operations or sites where there are formal agreements with Indigenous Peoples' communities	114			-
Assessment					
G4-DMA	Disclosures on Management Approach	16		As part of Human Rights Policy	-
G4-HR9	Total number and percentage of operations that have been subject to human rights reviews or impact assessments	-			-

Indicator	Description	Page		Note	External Assurance
		Sustainability Report	Annual Report		
Supplier Human Rights Assessment					
G4-DMA	Disclosures on Management Approach	16		As part of Human Rights Policy	-
G4-HR10	Percentage of new suppliers that were screened using human rights criteria	-		All significant contractors are fully complied with the local labor laws.	-
G4-HR11	Significant actual and potential negative human rights impacts in the supply chain and actions taken	-			-
Human Rights Grievance Mechanisms					
G4-DMA	Disclosures on Management Approach	47			-
G4-HR12	Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms	47			-
Social: Society					
Local Communities					
G4-DMA ^{ME}	Disclosures on Management Approach	110-112			-
G4-SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs	110-113		100% of operations implemented local community engagement, impact assessments, and development programs.	-
G4-SO2	Operations with significant actual and potential negative impacts on local communities	126		There is no significant actual and potential negative impacts on local communities.	-
MM6 ^M	Number and description of significant disputes relating to land use, customary rights of local communities and Indigenous People	126		There is no significant disputes relating to land use, customary rights of local communities and Indigenous People.	-
MM7 ^M	The extent to which grievance mechanisms were used to resolve disputes relating to land use, customary rights of local communities and Indigenous Peoples, and the outcomes	125-126			-
EU22 ^E	Number of people physically or economically displaced and compensation, broken down by type of project	-			-
Emergency Preparedness					
G4-DMA ^M	Disclosures on Management Approach	83-84	48		-
Artisanal and Small-scale Mining					
G4-DMA	Disclosures on Management Approach	114			-
MM8 ^M	Number (and percentage) or company operating sites where artisanal and small-scale mining (ASM) takes place on, or adjacent to, the site; the associated risks and the actions taken to manage and mitigate these risks	-		There is no sites where artisanal and small-scale mining takes place on, or adjacent to.	-
Resettlement					
G4-DMA	Disclosures on Management Approach	N/A		Not a material issue	-
MM9 ^M	Sites where resettlements took place, the number of households resettled in each, and how their livelihoods were affected in the process	-		There is no sites where resettlements took place.	-
Closure Planning					
G4-DMA ^M	Disclosures on Management Approach	111		Not a material issue	-
MM10 ^M	Number and percentage of operations with closure plans	-		All mine sites have closure plans.	-
Anti-corruption					
G4-DMA	Disclosures on Management Approach	32-33			-
G4-SO3	Total number and percentage of operations assessed for risks related to corruption and the significant risks identified	-			-
G4-SO4	Communication and training on anti-corruption policies and procedures	32-33			-
G4-SO5	Confirmed incidents of corruption and actions taken	-		There is no incidents of corruption.	-

Indicator	Description	Page		Note	External Assurance
		Sustainability Report	Annual Report		
Public Policy					
G4-DMA	Disclosures on Management Approach	N/A		Not a material issue	-
G4-SO6	Total value of political contributions by country and recipient/beneficiary	-			-
Anti-competitive Behavior					
G4-DMA	Disclosures on Management Approach	21	65	Code of Conduct, page 43	-
G4-SO7	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes	-			-
Compliance					
G4-DMA	Disclosures on Management Approach	67-71			-
G4-SO8 ^M	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	71			-
Supplier Assessment for Impacts on Society					
G4-DMA	Disclosures on Management Approach	114			-
G4-SO9	Percentage of new suppliers that were screened using criteria for impacts on society	-			-
G4-SO10	Significant actual and potential negative impacts on society in the supply chain and actions taken	-		There is no significant actual and potential negative impacts on society in the supply chain.	-
Grievance Mechanisms for Impacts on Society					
G4-DMA	Disclosures on Management Approach	126			-
G4-SO11	Number of grievances about impacts on society filed, addressed, and resolved through formal grievance mechanisms	126			-
Disaster/ Emergency Planning and Response					
G4-DMA ^E	Disclosures on Management Approach	83-84			-
Social: Product Responsibility					
Customer Health and Safety					
G4-DMA ^E	Disclosures on Management Approach	28			-
G4-PR1	Percentage of significant product and service categories for which health and safety impacts are assessed for improvement	-			-
G4-PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by type of outcomes	28			-
EU25 ^E	Number of injuries and fatalities to the public involving company assets, including legal judgments, settlements and pending legal cases of diseases	-			-
Materials Stewardship					
G4-DMA ^M	Disclosures on Management Approach	N/A		Not a material issue	-
Product and Service Labeling					
G4-DMA	Disclosures on Management Approach	28			-
G4-PR3	Type of product and service information required by the organization's procedures for product and service information and labeling, and percentage of significant product and service categories subject to such information requirements	28			-
G4-PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes	28			-
G4-PR5	Results of surveys measuring customer satisfaction	28			-
Marketing Communications					
G4-DMA	Disclosures on Management Approach	N/A		Marketing communications are not material for a commodity business.	-
G4-PR6	Sale of banned or disputed products	-		None	-
G4-PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcomes	-		None	-

Indicator	Description	Page		Note	External Assurance
		Sustainability Report	Annual Report		
Customer Privacy					
G4-DMA	Disclosures on Management Approach	28			-
G4-PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	28			-
Compliance					
G4-DMA	Disclosures on Management Approach	67-71			-
G4-PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	71			-
Access					
G4-DMA ^E	Disclosures on Management Approach	-			-
EU26 ^E	Percentage of population unserved in licensed distribution or service areas	-			-
EU27 ^E	Number of residential disconnections for non-payment, broken down by duration of disconnection and by regulatory regime	-		The electricity generated is transmitted to national grid which is operated by the government.	-
EU28 ^E	Power outage frequency	-			-
EU29 ^E	Average power outage duration	-			-
EU30 ^E	Average plant availability factor by energy source and by regulatory regime	-			-
Provision of Information					
G4-DMA ^E	Disclosures on Management Approach	-			-

^M Mining & Metals Sector Disclosures

^E Electric Utilities Sector Disclosures



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