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The **ethnic DNA** that supports the growth
INDONESIA



"The sleeping economic giant" that jumped up.

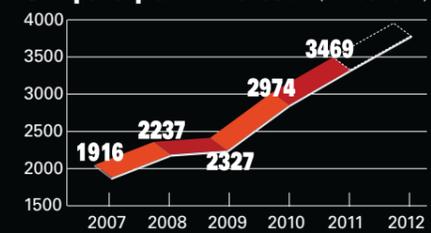
Indonesia is viewed with an approving gaze by the world. In fact, it was considered a potential next-generation economic giant along with the BRIC countries from early on. However, we found it had fallen out of that group, unnoticed. The currency crisis of Asia that occurred in 1997, along with the political turmoil that resulted in the collapse of the regime, led this country into its slump.

However, with the start of the current S.B. Yudhoyono administration, and created by its very first democratic election, Indonesia once again regained its footing. It's been maintaining a 6% growth rate that promises Indonesia sustainable growth. The Yudhoyono administration laid out the aggressive economic plans with these achievements in place.

The centerpiece is the Master Plan to accelerate and expand Indonesia's economic development. This plan is to invest in the key industries starting in 2011 up through 2025. The total amount is over \$440 billion dollars, which, prorated, is equal to 60% of the annual GDP. Those key areas are spread over 22 types of industries: the infrastructure such as electricity, roads, and IT; the mining of oil, gas, coal, nickel, and copper; the agriculture sector such as palm oil, rubber, food, and fiber; the production of steel; and so on. It is an "every-direction" model; in other words, a total improvement project that covers nearly all industries. Among those industries, the most visible are the infrastructure and mining. 70% of the entire budget is for those two areas. This project includes the "Six Economic Development Corridor Plan" to connect all the islands around the country with an infrastructure network.

Their goal is to become a top-ten economic power by the year 2025. The sleeping giant pulls Asia.

GDP per capita in Indonesian (unit US dollar)



Source: Japanese External Trade Organization (JETRO)

Photographer/Kazuhiko Kurabe
Text/Satoru Satoh

While the demands of China, that have been leading the world Machinery market, slows down, Indonesia has come to the surface instead. That unpredictability surprised even the people involved in the market. The advantages that Indonesia has in the spreading machinery market are the rich natural resource, the "non-aging" population of 240,000,000 people, the robust domestic demands, and the investment of foreign capital. Yet, the driver of the growth is Indonesia itself. That is the unity that goes beyond the ethnic diversity.

The ethnic DNA that supports the growth INDONESIA



EH3500ACII operating at Adaro's mining site. Hitachi's machines that have a high operating rate get great feedback from the operators. They say that it's fun to operate them. (by Adaro)

Hitachi's mining machines that support the competitiveness of the global player.

The Indonesian companies grow less dependent on regulations.

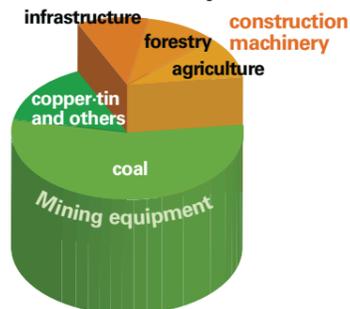
"Are you sure it's doing that well?" Mr. Tsutomu Kijima, an analyst at Barclays Securities openly shows his surprise when he was analyzing the world machinery market last year.

In fact, the growth rate was remarkable. For example, the demands for hydraulic excavators grew approximately 250% in three years; that is, from 5,400 excavators in 2008 to 13,600 in 2011.

(Researched by PT Hexindo Adiperkasa Tbk*) The way above made GDP per capita growth of 150% during the same period of time (from \$2,237 to \$3,469 in US dollars).

What's pulling this rate up is mining (see the chart). Indonesia is a prominent country rich in natural resources that produces tin, nickel, copper, oil, natu-

Indonesia's demands for construction machines in the respective fields



ral gas, etc. As for the nation's Master Plan, 30% of the budget is invested into the mining industry. Especially, coal is expected to keep growing in the export markets due to demands of electricity from a remarkably growing Asia.

Generally, the scenario of economic development starts with exporting natural resources and investing the obtained foreign currency into nurturing the domestic industries. That is exactly what's happening to Indonesia.

Coal in particular is expected to grow well. In State Measures, the government clearly positions coal as one of the national sources of revenue. 80% of the domestic production is allocated to exports and they became the second largest exporting nation after Australia in 2010. Compared to Australia, Indonesian coal has an advantage in transportation costs because they are closer to Asia, the center of the world's consumption.

However, the air that surrounds the market started changing recently. The government enacted a new law that requires additional processing of the exported goods to develop the domestic industry. It also raised the custom rate as well. Other possible concerns are a possible supply shortage and a potential movement toward resource nationalism.

Nevertheless, it's widely predicted that what the government enacted is unlikely to happen without some change. Mr. Hariyanto Wijaya, an analyst at



Adaro's Tutupan coal mine in South Kalimantan is the largest in Indonesia. Its annual production in 2011 was approximately 40,000,000 tons. The total reserves are 620,000,000 tons.

Mandiri Sekuritas, an Indonesian securities company, questions it. "Although domestic processing is required immediately, the technology cannot keep it up. Especially, in the case of coal, the point is to either improve the quality of the coal or implement liquefaction, but is there technology that can make that possible?" In fact, in this restriction-targeted field, there is still a mining company that received permission to export without additional processing (as of July 9th).

As a matter of fact, the mining market in Indonesia has been growing significantly with their own self-help efforts separate from the government's measures.

Adaro Energy is one of such cases. It's the largest mining company in the nation and has been raising its sales amount for the past twenty years, starting before the currency crisis.

Mr. Chia, Director of Adaro Energy, says. "It's not just because of the cost that Indonesian coal is thought highly of."

"They are regarded highly in the developed countries, starting with Japan. Why? It's because of the quality."

Typically, steam coal that is used at thermal power plants has an issue with the sulfur content and the ash content. The lower those ratios are, the higher the cost performances are.

The average sulfur content of Australian coal is 0.5%. Compared to this, the Adaro's coal has only 0.1%. In terms of

the ash content, the Australian coal has over 10% and Adaro's is 1%." Mr. Chia says.

Mr. Kijima asserts, "the mining companies in Indonesia have high competitiveness as global players, not just in transportation costs but also in the total management of the product."

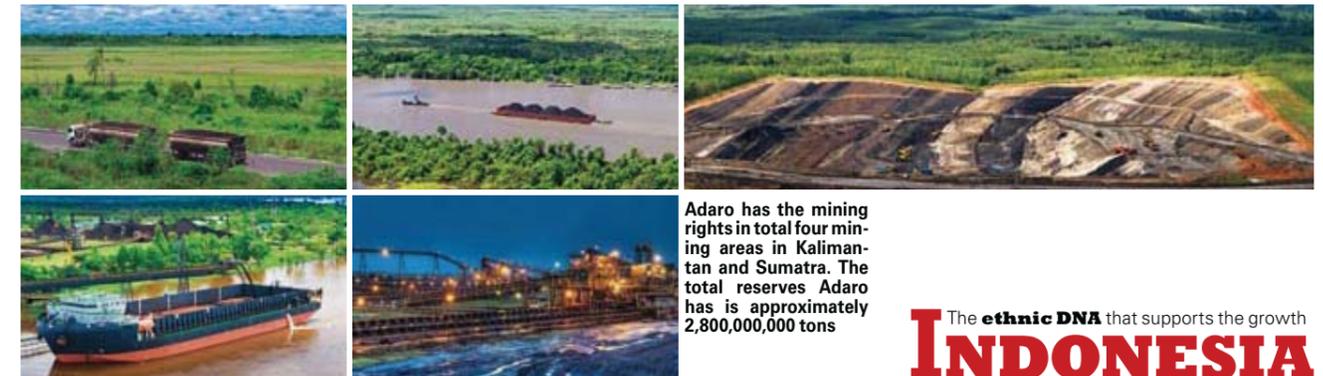
What such global players trust are the machines of Hitachi Construction Machinery. Starting in 2011, Adaro decided to adopt tens of Hitachi mining equipments across its group.

"It started with the excellent performance of the Hitachi machine that our mining contractor was using. In addition to that, the Australian executive who previously worked for Adaro strongly recommended Hitachi because of his experiences at his former work place". According to him, "Hitachi's machines had extremely high reliability. And, their support was superb."

In order to grow as a global player, quality and a low cost operation must be ingrained. It's indispensable to adopt machines with high reliability and high productivity. It's also necessary to nurture the human resources that are skilled at the new machines and technologies.

By holding numerous meetings with Hitachi to develop the optimum mining plan, and after a prudent analysis, we have made decisions on such items as the costs the maintenance, the management, the application and so on. We are content with the operation rate after this adoption. We believe that it is the best choice.

Mr. Chia speaks. "In the mining business, it's important that the machine manufacturer and the mining company trust each other and help each other to reach the goal. We sensed that we would be able to partner with Hitachi closely and for a long time.



Adaro has the mining rights in total four mining areas in Kalimantan and Sumatra. The total reserves Adaro has is approximately 2,800,000,000 tons

Building a super team to grow into a fully comprehensive energy company

PT Adaro Energy Tbk
Director

Mr. A.H. Chia

We have a plan to raise the current 47,000,000 ton production output to 80,000,000 tons and to 100,000,000 tons in the future. We are aiming to become a leading company in the world, not only as a coal company but as a fully comprehensive energy company.

For that, we need to insure local environmental protection, an economic benefit return to the local area, an infrastructure, and the building of the foundation for education, in addition to the production of high-quality, low-cost products. It's because, keeping a sustainable business is not possible without the local community's understanding. We have put focus on such efforts and our stockholders have a strong interest in that.



In order to attain our goal, we believe that our relation with Hitachi will be the key. Hitachi's products are considered to be highly reliable by the mining companies all over the world. Besides, Hitachi has plenty of know-how about how sites work.

Although our relationship has only just begun, I believe that we have been building a relationship based on trust. From now on, there will be plenty of room for us to grow further, such as increasing the size of machines for optimization of production.

There is still something both parties should do continuously, which is verifying the outcome results.

Indonesia is a nation that highly regards diversity and still unites for a shared goal. Because of such a culture, a mining company with a multinational operation can grow in Indonesia. We do not need an individual Superman but we want to build a multinational Super Team. There is no doubt in my mind that Hitachi is essential to its success.

The ethnic DNA that supports the growth
INDONESIA

The concept of "Product Support" was born here. Balikpapan, Kalimantan the foremost line and base of the mining product support.

Detailed contractual items that meet the customers' needs show deep know-how.

Balikpapan in East Kalimantan State is where PT Hexindo Adiperkasa Tbk (Hexindo) undertakes its sales and service of Hitachi Construction Machinery's products in Indonesia and where it has its mining product support unit. It supports over 500 pieces of mining equipment operating in the entire Kalimantan area with over thousand-staff system.

The product support service is done while the machines are running or, if the machine is stopped, only for the minimum time required. Hitachi Construction Machinery established this concept of "product support", which is now practiced at mining sites all over the world, whilst here in Indonesia it has been operating for 20 years.

Although it's simply called "product support", there are various parts to it. Hexindo has multiple service menus that depend on the needs of the customers. For instance, in addition to a routine inspection and a basic parts plan, they provide options such as the CSC (Customer Support Contract) that stations a technical support technician at the site, SSA (Site Support Agreement) that additionally provides a maintenance plan to a CSC, and FMC (Full Maintenance Contract) that guarantees the minimum operation time of the machines. Separately from these, they have the VHS (Vender Held Stock) that improves the immediate delivery availability of the parts, and there is an oil and fat provisioning contract that provides the appropriate Lubricants for the Equipment.

Furthermore, these contracts list very detailed contractual items such as the



conditions for corrective maintenance, the provisioning of the tools for the equipment, and the accommodation and meals for the technical support teams. "Every single item in these contracts is from the experience from the previous twenty years." General Manager, Hiroyoshi Tanaka proudly says.

In general, "Product support" generates three times revenue as much as one sold machine.

Although there may be an impression that the customer's side is a major burden, "that's not the case," Tanaka says. "Normally, the standard operation time of mining excavators is for ten years and 60,000 hours. However, the oldest excavator we provided has been operating for 20 years and 120,000 hours. This proves that with the proper maintenance, our machine last longer and its productivity improves," Tanaka said. "What's required is our capability to promptly replace and repair the equipment, and what's important is to build the system that can support that."

What is critical to our core business is the human resource development. Last year, we started a new training center for mining product support. We also depend on the remanufacturing parts plant and the parts storage facilities that were expanded in 2009. The remanufacturing parts plant will make a cost reduction possible and the parts storage facility will make prompt and precise supply possible. Tanaka says "The strength of Hexindo is that they are able to provide a direct service at a high level by being directly connected to the manufacture. With this structure, the systems that we have developed over the previous 20 years, we have implemented a highest level of quality in the region. This is not easy for other companies to mimic."

The ethnic DNA that supports the growth
INDONESIA



Remanufacturing parts plant. The parts that have been replaced from a machine as the component life has been achieved are rebuilt within the Plant.. "Even learning how the parts deteriorate by carefully examining and analyzing the parts themselves has great value to the company."

Continue to develop the products for the growing fields and maintain the quality and service ability.

Despite the Indonesian government action that imposes customs and obligates local processing of the mineral resources, I feel that the impact is not so big. It's because, typically, business in Indonesia expands without the government's policy. As for coal, I feel rather uneasy about the direction America's shale gas is heading. If America starts exporting shale gas, the price of coal and natural gas will decline. We have to prepare for them to be competitive in quality and price. In the market, there are expecta-



Mandiri Sekuritas
Analyst
Mr. Hariyanto
Wijaya

tions from agriculture. The production of palm oil is growing but it still can meet only half the demand. It's due to the lack of arable land. What we can expect after all is construction. The demands for infrastructure will grow. The Hitachi products and service are being highly thought, especially their services. Both Chinese and Korean manufactures will enter the market in the future, but Hitachi will keep winning by developing machines for the growing market and maintaining the quality and service.

"Kenkijin" in Indonesia



1 2 A regeneration operation at the remanufacturing parts plant. On one hand, understanding the damage is a valuable asset.



3 The warehouse where 10,000 parts worth 50 yen to tens of millions of yen are managed. 4 A disassembled model for the practical study at TC

"Kenkijin" 01

What our customers want are the skills and the comprehensive experience of our people who have thorough knowledge of mining.

Our customers purchase mining excavators for a 10-year operation. At the time of the purchase, the product support unit must be able to predict how the site and the machine will change over ten years.

Also, under the rigorous condition of a 24-hour-a-day operation, anything can happen at any moment. When it comes



to the crunch, how should we make a judgment and what answer should be given? In order to deal with these "in the future" and "critical moments", the level of experience matters a lot.

Staff with in depth knowledge and experience are based at the "product support" unit in Balikpapan. Among them is the general manager of operation, Abu (right), who organizes and manages the individual sites within the regions. Mick (center), the general manager of product support, provides the support to Abu's sites and manages multiple business units to maximize the customer's benefit of the Hitachi product. They thoroughly understand which machine is used where and how and what condition it's in. Moreover, they contribute to the reduction of the operating costs and the downtime of the machine, for example, by developing a mobile parts warehouse. For them, cooperation with the department head of parts marketing, Sabar (left) and his team is critical.

The "Product support" unit of Hexindo is comprised of many skills and deep experience.

"Kenkijin" 02

Keep improving the lifeline of the "Product support", which is the power of supplying parts and remanufactured goods.

Some customers ask for a guarantee for the fastest and most immediate delivery rate. In fact, we can say that parts are the lifeline of the "Product support". A defect of just one part can make the machine nothing more than a piece of dead iron. Therefore, the fulfillment of the parts warehouse and the system are connected directly to customer satisfaction. Here, we have a warehouse that can contain approximately 10,000 different types of parts, half a year's worth of stock, on an approximately 4,000 square meter floor.

Last year, Hexindo sold approximately \$114,000,000 dollars of parts in total. 80% of them were sent out of this warehouse. We built the system so customers can check their stock on the internet. "We want to continue to promote the importance of parts." Mr. Sabar and the department head of parts inventory and system, Mr. Kartono (left), show their enthusiasm.

What's as important as stock maintenance is the remanufacturing of the parts. Since replacement parts and components of large machines are often transferred overseas, it takes a long time to be delivered. Therefore, the parts remanufacturing business that quickly regenerates and replaces parts is a big benefit for the customers in both time and cost.

In case of the cylinders, the prices are about 30% of the new ones," Mr. Muklas, the general manager of the remanufacturing plant (right), says. "When they break, we can take the replacement part out of the stock right away. It takes less down-time this way."



"Kenkijin" 03

A training center specializing in mining has started. It is contributing to all of Indonesia.

What the "Product support" needs most urgently now is human resource development. The "Product support" at Hexindo has over 1,000 staff members. Yet, it's still short by about 250 people. As a solution, in addition to their existing training center (CT) in Jakarta, they opened a new one in Balikpapan last year that specializes in Mining Product Support.

The trainees receive the training over the course of three years. The training includes classroom lectures, practical training, and OJT (On-the-Job-Training) at the customer's sites to play an active part as support engineers at both domestic and overseas mining sites. We also have a training program strictly for our customers.



Having the re-education program for the site support engineers is the biggest distinctive feature of this new training center. The technology keeps changing so fast. Having the support engineer acquire the newest technologies and knowledge is tied to our guarantee of quality.

Training Center Head, Mr. Syamsul (center), comments. "The know-how we have built is incorporated in this training center. Another strength of this training center is that we can receive feedback from the sites through the customers on a regular basis. The government is also interested. Not just for Hexindo's skill building but also to expand all of Indonesia's skill set."



Mr. Sahrudin, an operator with five years of experience. "The salaries for the forest operators are high. Hitachi's machines move swiftly. It would be nice if Hitachi could build machines that can move even more swiftly."

A scene of ZX210F, with grapple, is loading cut trees. The strength of the hydraulic excavators is that they can handle different tasks by changing the attachments.

Our support system and development ability of the specialized machines are highly acclaimed in the forestry field as well.

Forestry is also attractive in Indonesia. With the rapidly-growing focus on Asia, it brings people's attention to the world's source of pulp and paper material. At the same time, the world has been troubled with the decrease in forest land caused by reckless deforestation. Meanwhile, there are companies that are implementing a sustainable forestry with an excellent management practice. PT.ITCI Hutani Manunggal, headquartered in Jakarta, is one of them.

They are efficiently producing acacia in a six-year cycle by allocating 89,774 hectares to their business area out of their approximately 160,000 hectares property in East Kalimantan. Sustainable production became possible by dividing the business area into six areas and by staggering the entire process from the planting through the cutting by one year. About 24,000 trees are produced per day and chipping also takes place at their own plant." As a forestation and wood fiber company, we are aiming to be the number one in the world in terms of productivity with the least environmental impact, says Plantation Manager, Mr. Toding.

The machine they selected as the



"We like the colors of the Hitachi Machines," Mr. Toding and Mr. Remonde comment.



A processor-mounted ZX210MF are lopping the branches off. At this site, there are 49 machines owned by both Hitachi and the contractors. 38 excavators, such as the ZX110MF, are also operating here.

main force is Hitachi forestry equipments such as ZX210MF. In addition, 121 machines of our American business partner, John Deere & Co., including their Motor Grader, operate at ITCI Hutani Manunggal's site.

"We judged that Hitachi's machines have high productivity, which fits this site. The excavators especially have great operability and they are fuel-efficient. In fact, other manufactures were less expensive than Hitachi but there was a difference in durability. Besides, Hitachi's service was better by far", applauds Workshop Manager Mr. Remonde.

The on-site support with two dedicated engineers from Hexindo also started this year. A warehouse that keeps 300 kinds of spare parts is positioned at the

site.

"Their service is very reliable and helpful. When the shift of one engineer ends, the next engineer brings replacement parts. A great amount of lost time has been reduced this way," says Mr. Remonde.

The service capability of Hexindo dedicated to the growth of customer satisfaction to a high level in the forestry sector, is very trusted here. There are high expectations for Hitachi, a pioneer in developing and providing forestry models ahead of any other company in Indonesia.

"A better fuel efficiency is required for a reduction in CO2 (carbon dioxide). We'll continue to have high expectations for Hitachi's machines." Mr. Toding speaks.



The plantation on a vast field (left). The right is the first-year zone where new plantings have just been finished.

The ethnic DNA that supports the growth
INDONESIA

Key Person

To create the Hexindo Culture by integrating the Gotong Royong spirit into the Kenkijin spirit.

Interviewer: Sales are doing well. What's driving the mining demands?

Hirose: The total number of excavators from mid-sized to ultra-large sold was approximately 1,200 in 2008 and it grew to 2,900 in 2011. We estimate that it will reach about 3,500 in 2012. Although mining is getting a lot of attention, in our company's case, I want to emphasize that our sales are well balanced. As you can see, our sales are quite even; 29% for mining, 25% for forestry related, 32% for agriculture, and the last 14% is for construction. Especially in the forestry field, both M and F models (M=Mad, a soft-ground model / F=Forest, a forestry model) are selling well and they take up half of the demand.

We are not using an agency system. We have 42 of our own sales and service bases all over Indonesia, and the fact that we can directly listen to our customers' voice through those branches is an advantage for us. For example, the ZX-5 series excavator, which we are now depending on, is an excellent machine with good fuel efficiency. Due to our customer's feedback, we realized that we need to equip it to run on even bad quality oil.

Interviewer: With the Master Plan of the government, it seems that the infrastructure demands will grow.

Hirose: The bidding for the subway construction in Jakarta has finally



Hexindo publishes a public relations magazine. Because of the wide variety of information that the magazine provides, its credibility in the market is increasing.

The management of Hexindo as a publicly-traded company, is getting people's attention. The company has received the Management Award.



CEO of **PT Hexindo Adiperkasa Tbk**
Chikara Hirose

started. There, we are trying to sell our applied machines such as "Chameleon"(see page 18). From now on, we will aggressively sell our applied machines like those, as well as the bulldozers and backhoe loaders of our American partner, John Deere & Co.

Interviewer: In order to propel "localization", the key is human resource development.

Hirose: That's exactly where we are putting our best efforts. Especially because of the shortage of the service personnel, we are developing our training center. Last year, we opened one in Balikpapan on Kalimantan Island, which will be our mining

support training base and we are expanding the TC at our headquarters next year as well.

I believe that we will start seeing that the effect of these efforts, such as the human resource development program tie-up with the local school, the Gajah Mada University, is raising our corporate value.

Interviewer: Indonesia is a model of diversity that is both multi-cultural and multi-lingual.

Hirose: Indonesia's founding principle is "unity among diversity" and traditionally there has been the thinking of mutual aid called "Gotong Royong". It means "go together". We want to build up a Hexindo culture that Gotong Royong is integrated into "Kenkijin", the spirit of Hitachi Construction Machinery. For that, we'll continue to promote Indonesians into management positions.

“Kenkijin” in Indonesia



All over the world, it's common that the sales and service staff rush to the customers when something happens to their machines. The problem is that, in Indonesia, there are a lot of cases where the machine is used deep in the forest and it's not unusual that there are no roads to reach that spot. After traveling along bumpy roads for a few hours, they have to take a speed-boat ride for another few hours.

“It takes two days after the call comes in. Sometimes we find out what the trouble really is only when we finally get there. Since the return trip also takes two days, it often takes four days for the round trip. Global e-Service is exactly what Indonesia was looking for in those situations.”

The team leader, Puji, who has been deploying Global e-Service at Hexindo, speaks.

Global e-Service is the system that

“Kenkijin” 04 Global e-Service We want to let our customers know that the merit of this service is to get closer to them.



stores and manages the information sent from the machine via satellite communications. It is able to collect the information that our customers and our sales and service bases need to support remote areas. With it, we can obtain useful information such as the location of the machine, the operating hours, the daily report, the maintenance records, and so on.

The Global e-Service in Indonesia

started in early last November. Four specialists at Hexindo started it up. As of July this year, about 3,200 machines are operating throughout Indonesia with satellite communications.

They monitor the machines in daily operation. When any trouble happens to the machines, they analyze the alarm information and direct the cause and countermeasures to the service base, trying to



The location and condition of the machines of our customers are monitored all the time.

decrease the down-time.

“Since we are able to understand the trouble precisely beforehand, the loss in time we used to have is reduced dramatically. Currently, we are developing the system that identifies a vehicle with the satellite communication service at its operational site. When it's completed, the efficiency of the service will be improved significantly,” says Puji.

Sometimes the branches come to these four, who have a background in technology and IT, for advice. It is one of their roles to share this information and find solutions.

What Puji's group is giving high priority to is the promotion of this system to the customers.

“The value is not understood well enough yet. There are many customers who do not have a PC. So, how we let them know the merit of this system is critical; as well as how to improve the overall IT environment. If the understanding of the value begins to spread more quickly, the system will spread to other areas in Asia as well. To get closer to our customers, there are still so many more things we can do.”

“Kenkijin” 06 PT Hexindo Adiperkasa Tbk President Director Kardinal A. Karim

“Hexindo” is my pride. Human resource development will lead the way for Indonesian young people and the nation.

Mr. Karim, who came from an accounting consulting firm that is among the top in the world, is well-versed in business.

“Generally, the Japanese companies have a long-range view and pursue the quality of products. Also, characteristi-



cally, they don't manage by a single character at the top but manage as a group. In parallel, they respect the culture, the customs, and the way of the locals' thought.

On the other hand, the American and European companies tend to persist in their own ways and they pay attention to the short term profit. Thus, there have been many cases of pulling out of Indonesia within five to six years. The other players, such as the Korean and the Chinese companies, are extremely hungry and aggressive.

Considering these factors, I believe the way of the Japanese companies fits Indonesia. Some people point out that group management takes too much time to make decisions; however, there's merit for that. For example, the information of the employees assigned to the local office absorb can be shared among the entire group.

There is no doubt that Indonesia will develop significantly from now on, but the key is human resource development. It's on the shoulder of the educational institutes, but that is not enough to produce the human resources needed to meet the businesses demand.

In fact, although a lot of young people who want to get into manufacturing, medical, and technology industries also want to study in Japan, they have to go to nearby Singapore or Australia instead because of the high costs. Regarding that point, the human resource development system by Hexindo and Hitachi Construction Machinery is excellent. Since chances to study in Japan are provided, it gives hope to young Indonesians. It also leads to a great image for a publicly-listed company.

Hexindo is my pride. It's the company that will lead the way to Indonesia's future.



with CEO Mr. Hirose

“Kenkijin” 05 Corporate Special Responsibility Hexindo and the prestigious University of Gadjah Mada Indonesia's first heavy machinery engineering department is founded.

From left, Mr. Andantino (Hexindo), Dr. Sakarinto (UGM), Mr. Krisnaputra (UGM), and Mr. Firdaus (Hexindo).



In 2011, as part of the CSR program, Hexindo founded Indonesia's first heavy machinery engineering department, collaborating with Indonesia's most historic National University, the University of Gadjah Mada's machinery department.

Its curriculum incorporates both Hexindo and UGM's ideas, 50-50. It's a four-year course where students learn both theories and practice, from the basics of mechanical engineering to the mechanism of heavy machines, including their repair, development, and operations.

UGM can strengthen its brand-name power by having this new, attractive department. Besides, after graduation, the students can expand their job opportunities to Hexindo and other mining companies and into the government's organiza-



The number of applicants for the heavy machinery engineering department was ten times as many as the enrollment.



The President Director of Hexindo Mr. Karim and the Professor of UGM Mr. Sudjarwadi shake hands at the signing ceremony.



Mechanical Fair 2012 produced by UGM with the complete support of Hexindo.

tions. The vice head of the mechanical engineering department of UGM, Mr. Krisnaputra, speaks as follows. “Hexindo provided real machines and transportation vehicles, and sent site experts to us as lecturers. They also provided training sites at their plants and mining sites. We had eight of our professors stationed at their mining sites for ten days. Those given hands-on experience were especially

valuable. I realized the scale of Hitachi Construction Machinery and the greatness of their brand name.

The other party to the program, Hexindo also receives benefits. They can hire excellent human resources out of the prestigious college preferentially and this can lead to the raising of the value of both Hexindo and the Hitachi brand name. Furthermore, Mr. Firdaus at Hexindo says, “it can strengthen our competitive power.” Since the Hitachi machines become the base of the technical skills obtained in college, as a matter of course, the opportunities to use our products will increase.”

Mr. Sakarinto at UGM says “the merit won't stay with just UGM and Hexindo.”

“There are cases where the local governments build a training center for this program. The living standard of all of Indonesia will keep improving because of the power of local employment and infrastructure. The media and the society will pay attention to that. The influence is unmeasurable. In the future, we want to expand this model to other colleges and areas. I believe that what we should do now is to achieve good results.”

UGM is planning to double next year's enrollment for their heavy machinery engineering department.

The ethnic DNA that supports the growth
INDONESIA



The production line of the mid-sized excavators at the First and Second plants in Cibitung. The constant efforts for optimization continue, such as the evolution of the line lay-out.

The #3 and #4 facilities of the #1 plant, where the boiler parts for the ultra-large machines are lined up. These facilities will carry part of the work even after the completion of the new plant.

As the third hub in Asia, the plants in Indonesia continue to improve their production capacity.

With small ingenuities, the new plant has improved its productivity, reducing its initial cost.

What's pulling the growth of Indonesia is the foreign demand for the natural resources from Asian countries. However, the market for the construction machinery that digs them out is predominantly domestic demand. "The current domestic demand is 78%. There is still so much more potential for further growth."

The President / Director of Hitachi Construction Machinery Indonesia (HCMI), Tadashi Motoi, foresees the future of the Indonesia's construction machinery market.

To meet the increase in the demand, HCMI is pushing a major reorganization and expansion of the Cibitung plant in the suburban Jakarta and is rushing to complete a new plant at the same time.

With these developments, we will in-

crease our annual production of the mid-sized excavators from current 4,000 to about 5,500 in 2013 and, as for the ultra-large boiler, from 213 to as many as 243. "Needless to say, we are targeting even higher numbers," says Murakami, the Production Director.

The expectations are high for the new plant, scheduled to start its operations in October of this year. 20,000 square meters out of the 100,000 square meter lot is the new plant building. Okawara, the Deputy General Manager, says "in order to ensure the global quality of the excavators, our highest priority is to produce products like the plants in Japan do; we made many small improvements in cost and work efficiency after we first designed the plant."

Right is the inside of the #4 plant building in Cibitung. The indoor ceiling crane is also Hitachi's own product.

"For instance, we adopted a layout where we changed the direction of the movement of the bogie by 90 degrees from what it used to be and eliminated the wasted movement of the bogie. We also increased the work space by 600 square meters compared to the same-size buildings by extending the rail of the ceiling crane and making the tip stick out of the building a little. In addition to that, we reduced the construction cost by approximately 150,000,000 yen by dividing the floor based on the weight of the products and constructed the structure to fit each floor."

We had already acquired the property with future expansion in mind. "This

A safety committee system started this year. By turns, the employees monitor the plant in the red uniform. They point out improper operation, dangers, and so on. A safe factory is a necessary condition to start with.



plant is planned to be the world base of boilers for the ultra-large machines. Eventually, the expanded structures will be combined into a single building. To avoid a stoppage in the operation of the plant, we made the structure this way so that all we have to do is to remove the walls", says Okawara.

As for the plant in Cibitung, a new painting plant was established and the #4 plant and the warehouse have been expanded. The training center has been improved as well. The property size has been expanded from 191,000 square meters to 214,000 square meters.

"With both the expansion and the building, we pursued the productivity level of our Tsuchiura plant. The existing plants have been improved a few percentage points by such things as rearranging the position of jigs and the equipment," Murakami says.

We have high expectations for the new TC. The number of work booths has been increased from 8 to 24 to handle the increasing welding and painting training.

We want to improve ourselves, especially in the welding technology, because it has a decisive effect on the quality of the products. Currently, we send 30 essential employees to the Tsuchiura plant every year for a three-year study course. We want to improve our painting skills to become a new strength of the company," Murakami says.

Although the Indonesian market starts with domestic demand, Motoi gazes beyond that.

"We aim to have the best construction machinery plant in Southeast Asia. For that, we will improve the quality, cost, and the delivery ability and we will develop the type of machine that wins."

These kind of tools will be completed soon.

"Kenkijin" in Indonesia

"Kenkijin" 07

What's needed is to change the way of thinking to fit the evolution of the machines and the technologies.

Mr. Nurdiamoko, the chief of the production technology department, is in charge of effectively positioning the equipment to support the expansion.

"I regularly visit other companies to look around, researching what layout works out well for them. It's not easy because safety is under consideration at the same time. But it's fun to see a huge space being created by ideas."

Mr. Slamet, General Manager of Production Engineering Dept., is one of the busiest people at HCMI. While the machines change and human resources increase, he thinks about the safety, the quality, and the entire system that helps keep the production costs low. "We have so many tasks to be completed in a very limited time. However, it's not difficult. It's because we have already been doing this. Ten years ago, when the jigs and the equipment were not sufficient, we were able to produce only one machine per day. Now, our productivity has gone up to sixteen machines per day. What's important is to change the way of thinking of the humans.



"Kenkijin" 08

It's an exciting job from planning until operation that we cannot experience anywhere else.



The new plant is expected to be the engine of the new growth of HCMI. Mr. Fauzie, Manager of the Production Engineering Section, who is in his thirties, is in charge of this project. The way he works surprises even the Japanese. He supervises the whole process up to the start of the operation of the new plant: the size of investment, the designs, the construction, the transfer and the placement of the equipment.

"I'm very busy (laughter). But it's worthwhile. I'm having an exciting time everyday. I have been nurtured well by my company. They train me not only for the production technologies but also in a variety of things at many locations all over the world. I went to the Hitachi Construction Machinery plant in China before planning of the new plant. I learned about the painting equipment inspection in Thailand. I did sales for the vessels of dump trucks in Australia. Everything is helpful to me. I want to contribute to the improvement of the product quality by dealing with the manufacturing itself next."

As for the new plant, a 20,000 square meter building is built on a 100,000 square meter property. It's planned to be expanded in the future.



The vessel of the dump truck is also provided by HCMI. Boiler manufacturing will also be increased from now on.

The ethnic DNA that supports the growth
INDONESIA

One's own "Kenkijin" spirit that unifies skilled and flexible individuality

Indonesia is known as a pro-Japanese country. But unlike Japan, there are approximately 240,000,000 people, with more than 1,000 ethnic groups, over 700 languages, and five official religions, all living on 17,504 islands and make up just one nation. Indonesia could be one country that the Japanese have difficulty understanding.

How far can the spirit and values of manufacturing that the Japanese have developed over the years be shared? – This is a question that Hitachi Construction Machinery, which holds up "Made by Hitachi" as a banner and which spreads production worldwide, directly faces.

The answer and the solution to that are here in HCMI. Many Indonesians are originally skillful, and they are considered to be well-suited for manufacturing. The remaining tasks are how to hire and train talented personnel and how to build up the "Hitachi quality".

However, Yuki Takaoka, General Manager of the Personnel & Administrative Dept, says, "actually, for a company to unite as one in Indonesia, it is important to grasp the backgrounds of each individual.

"You can roughly determine the characteristics of people based on the island they are born on and the ethnic group they belong to. You may say 'he does his work quietly because he is from the northern part of that island and belongs to that group' or 'she prefers harmony among the group rather than following the principles because she is from that island', for example. Taking that into account when assigning and training personnel is the key to manage the organization," Takaoka says.

It is also important to respect the local culture. Indonesia is a country where people value the time they spend with their families. Every year, HCMI invites employees and their families, 3,500 in total, to go on a picnic using more than 50 chartered buses.

"It takes more than an hour just for the buses to arrive at the destination. Since it takes so much effort to prepare this, we suggested changing the picnic to another event or having it once every two years instead, but the answer is always 'No'. People really value families here,"



Demands for the wide-width crawler model is high in Indonesia where a lot of marshy areas exist.



Some of the machines among the forestry model have a dedicated hook that pulls cut lumber.



A forestry model with a wide-width crawler on.



HCMI staff. The quality of Hitachi was born and improved by the Kenkijin who shares the common sense of value.

says Takaoka.

Also, the spirit of "those with ability help those without", or the spirit of mutual help, has been deeply rooted in this country for a long time. CSR is very active. HCMI contributes to the society in a variety of ways, from supporting free treatment at the health centers and the improvement of the school grounds in poverty-stricken areas, to sending employees as instructors, providing scholarships, mangrove planting, and for neighborhood cleaning.

What unites this regional characteristic, cultivated by diverse natural features and cultures, is the "Kenkijin spirit", the identity common to HCM.

Mr. Syukri, the Head of the training

center, says, "This company is like a family. My heart is deeply moved every time I read 'Communicate with others, and while doing so, challenge without fearing failure' the stipulated standards of conduct." Also, Ms. Indira, General Affair, says that she was impressed by the words "Hitachi quality is what we ourselves are", meaning that we embody the Hitachi brand.

As a result of the penetration of this "Kenkijin spirit", HCMI is recognized as a company with low turnover and a highly stable labor-management relationship in Indonesia.

Hitachi quality is continuing to be improved by the value as a Kenkijin and the enthusiasm of each member.



The new training center built as part of the plant expansion. It accepts 50 people per session on a semi-annual basis. They take a six-month training program first, then have on-site training before they are hired. They can thoroughly learn the accepted welding techniques. The lectures are also substantial.

Key Person

To make HCMI a company where every employee can proudly say that they are employees.

Interviewer: It seemed difficult to procure parts after the earthquake.

Motoi: In those days we had a hard time because we could not procure the parts that we needed, but we made it through with the stock on hand. In the later half of the year we were able to ship more than was budgeted. The shipping is going very well right now. We have not had any delays since January of last year.

Interviewer: The domestic demand is leading the economy now. Do you think this trend will continue?

Motoi: In Indonesia, the "population bonus" period, when the productive population exceeds the non-productive population (such as children and the elderly), will continue longer than in China and India. Therefore, we should not be looking only at the present domestic demand. We expanded the present plant and built new ones. The renewal of the training center is also a result of foreseeing this "population bonus".

Interviewer: Together with the increment of production facilities, personnel training will also be a key.

Motoi: This place was originally like the soul of boiler manufacturing. We cannot make it such without skills. One of the reasons we decided to build a plant in Indonesia was that the Indonesians are skillful by nature. From here, 30-40 people go to the Tsuchiura plant for training on a regular basis. We rotate groups of about 10 people each and replace them approximately every 3 years. This has already been continuing for 10 years. We built the training center to improve their skills further.

Interviewer: Do you think that improving the efficiency in procuring parts will be the key in increasing the productivity?

Motoi: Currently, we are pro-



HCMI
Hitachi Construction Machinery Indonesia
President Director **Tadashi Motoi**

curing about 25% of the parts inside Indonesia, but we will increase this ratio. We are making contacts with 30-40 companies right now. Over these past three years, we have also asked six supplier companies in Japan to establish a base here. Since we had those companies start bases here, we must make it profitable for them. In order to do so, we need to increase the numbers of production. The idea is that we will boost our competitiveness and have them expand abroad from here.

Interviewer: I heard that your company is also manufacturing products in the areas unrelated to construction machinery.

Motoi: We produce transformers and overhead traveling cranes for domestic sales in Indonesia. In 1997, when the Asian currency crisis occurred, the demand for construct-

ing machinery decreased dramatically. Therefore we opened a new market using our boiler manufacturing technology, and that was the beginning. Since there is a constant demand, this has become a strong-point for our company. I would like to connect it to future product development. I believe that there is more we can do in the forestry and agricultural fields. As for the excavators, I would like to improve the 30t-class that's currently insufficient.

My dream is to have the number one plant of construction machinery in Southeast Asia. Needless to say, I want it to have high competitiveness in QCD (Quality, Cost, and Delivery), but I also want the employees to be able to believe that it is the best company in Southeast Asia and proudly tell their children "Your dad is working at HCMI!"