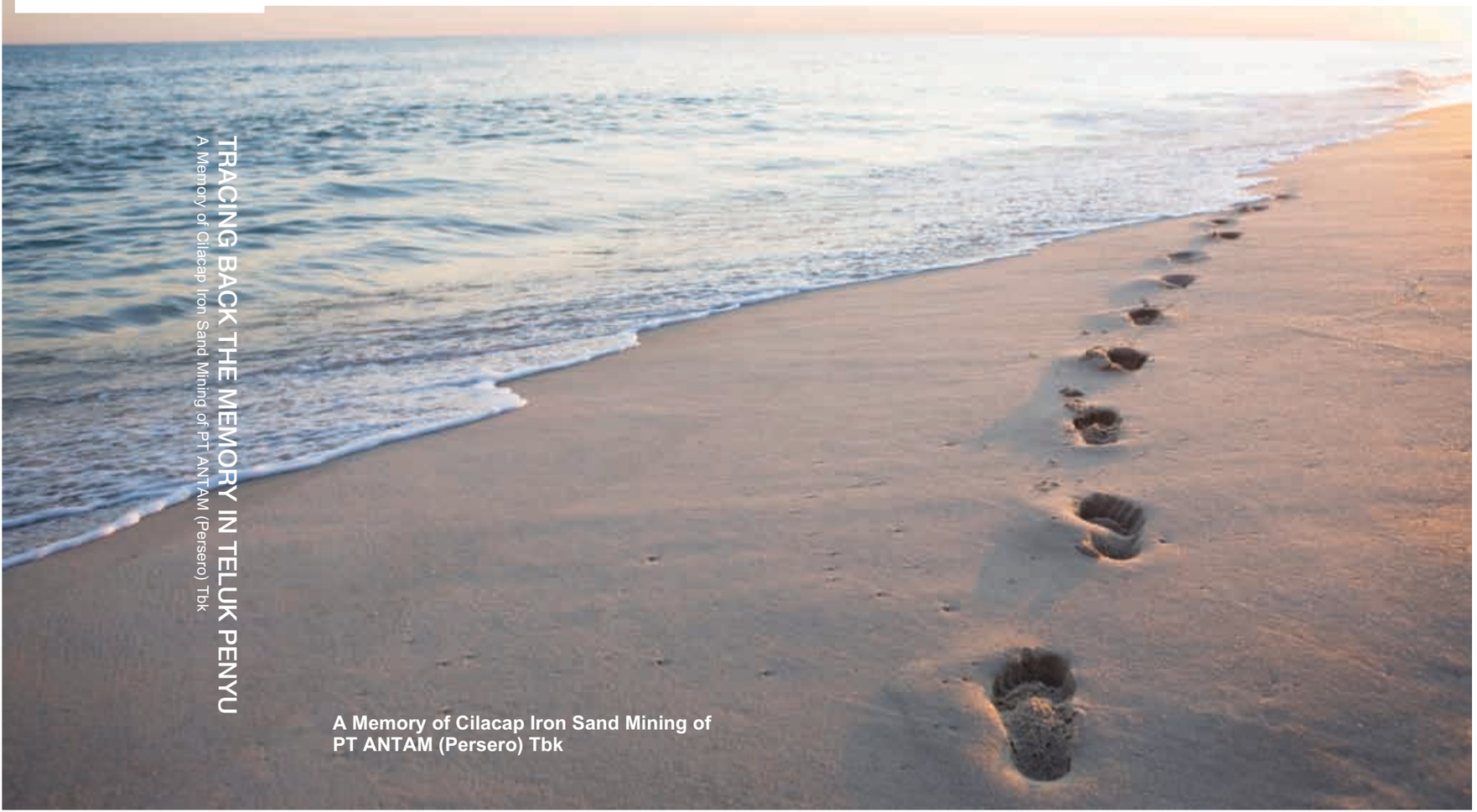
TRACING BACK THE MEMORY
IN TELUK PENYU



TRACING BACK THE MEMORY IN TELUK PENYU
A Memory of Cilacap Iron Sand Mining of PT ANTAM (Persero) Tbk

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Over three decades the iron sand of Cilacap has left traces of the miners. Cilacap Coast witnessed the dedication of children of the nation in their contribution to and developing the brighter life. A close tie between nature and people around it should not stop even after Antam left Cilacap.

TRACING BACK THE MEMORY
IN TELUK PENYU

A Memory of Cilacap Iron Sand Mining of
PT ANTAM (Persero) Tbk

Published by PT ANTAM (Persero) Tbk.

In every era, people create civilization.
Once upon a time, the history of their glory was
written among science and work of creation.
And among the footprints of miners along Cilacap Coast,
Central Java, we took part in bringing color and
meaning for the country, people and nature.

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TRACING BACK THE MEMORY IN TELUK PENYU

A Memory of Cilacap Iron Sand Mining of
PT ANTAM (Persero) Tbk

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Message from Cilacap Deputy Regent

H. Tatto Suwarto Pamuji

Assalamu'alaikum Wr. Wb.

The name of PT ANTAM (Persero) Tbk or widely known as "Antam", has rooted deep in the memory of most people in Cilacap, Central Java, and its surrounding areas, in relation to the company's operations in iron sand mining since 1970 and ended in 2003.

The journey of three decades has brought real benefit to many parties, both to those who were directly in touch with Antam, and to people around Cilacap.

Meanwhile for the Cilacap regency government, the business activities of this company has proven to be a part of the socio-economic development and to support development programs of Cilacap regency government, through the implementation of the iron sand mining concession that had been well-implemented by Antam. Antam's operations since the beginning until the end, as well as the post-mining activities, have been conducted according to the rules and regulations.

It has become positive values of the good corporate governance implementation that can be a benchmark or a model for other companies in Cilacap in particular, and other areas in general.

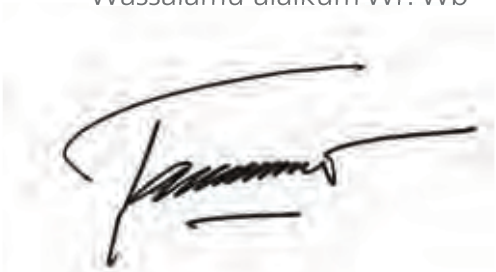
Regarding this, the Government of Cilacap Regency, Central Java, has received many comparative study visits of several other areas surrounding the mining activities and post-mining environmental management that has been carried out by Antam.

Antam's management efforts to publish the book "Tracing Back Memory in Teluk Penyu: A Memory of Cilacap Iron Sand Mining of PT ANTAM (Persero) Tbk" are based on sound grounds and very important goals, because it contains the values that may become valuable lessons for many parties and therefore should be supported.

I welcome the publication of this book, and hopefully it can be one of the references for those who need it, to learn more about PT ANTAM (Persero) Tbk., during its operations in Cilacap Regency.

Finally, on behalf of Government of Cilacap Regency and the Central Java and myself, I would like to express my gratitude and highest appreciation to the Management of Antam on its participation so far in supporting development in Cilacap. We hope the cooperation that has been established well over the years will still continue in the future.

Happy reading,
Wassalamu'alaikum Wr. Wb



H. Tatto Suwarto Pamuji
Deputy Regent of Cilacaps

Message from General Director of Mineral and Coal

Dr. Ir. Bambang Setiawan

Assalamu'alaikum Wr. Wb.

The success of PT ANTAM (Persero) Tbk in developing iron sand mining unit and then carried out the post-mining program, is not only the success of PT ANTAM (Persero) Tbk itself, but also the local communities engagement and guidance, consultancy, and supervision of Government officials both at central and local levels. Therefore, on this occasion I would like to express our appreciation and congratulations to the Directors and employees of PT ANTAM (Persero) Tbk and all stakeholders of Cilacap Iron Sand Mining Unit on the completion of post-mining activities in a continuous and sustainable way.

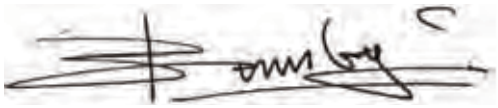
It will be written in the history that Indonesia is able to develop its mineral resources properly and able to return the post-mining land to its legitimate beneficiaries in accordance with good mining principles, as mandated in Law No. 4 Year 2009 on Mineral and Coal Mining.

We hope this success story is documented and distributed to all stakeholders in mining not only nationwide but also in regional and global arena, so it can be an example for other mines in Indonesia and we can be regarded as one of the prominent mining countries in the global sphere.

Indonesia mining community is required to show the public that mining is a development activity that is able to prosper the nation and the surrounding communities, protecting employees, people and the environment as well as able to generate profits for its business operators, while ensuring the recovery of post-mining environment in accordance with post-mining land use governance. This makes these demands as pre-requisite and it has been shown by PT ANTAM (Persero) Tbk.

Finally, I would like to express my gratitude for participation and contribution of all parties in the implementation of post-mining program of PT ANTAM (Persero) Tbk. Cilacap Iron Sand Mining Unit

Wassalammu'alaikum Wr. Wb.
Jakarta, January 2011



Dr. Ir. Bambang Setiawan
General Director of Mineral and Coal

A Brief Message from Us

Ir. Alwinsyah Lubis, MM

Dear readers,

The journey of PT ANTAM (Persero) Tbk as a business institution has left its mark in a number of places and islands in Indonesia. Outside of other mines such as gold, bauxite, and nickel, iron sand mining project that has been operated in Cilacap, Central Java, since 1970 and ended in 2003, has become an integral part of the company's history. Over the past three decades Antam has gone through ups and downs as a national company striving to operate with its best competency in Cilacap.

During the journey, we have seen and believe that the presence of Antam there did not only mean for us, Antam personnel, as a place for serving, expression, and delivering competency and expertise. We also see that the Cilacap iron sand mining contributed to the country's development, including local government. Correspondingly, Cilacap iron sand project had also significantly contributed to improve the socio-economic life of the local community.

All that has left memories and recollections deep imprinted, for us as well as all involved there. Thus, it is no exaggeration if we decided to make a record of it. The record is not only to be remembered by all involved there, but as a lesson for future generations that once upon a time a state-owned company named Antam, has dedicated to work with all the ups and downs in Cilacap, as well as several other locations that are under Cilacap Iron Sand Mining unit. Therefore this book is presented as our gift after leaving Cilacap.

No word that we can express except our gratitude to God Almighty and we are deeply grateful to all parties.

On behalf of the management of PT ANTAM (Persero) Tbk, we would like to thank and give high appreciation to the Government of the Republic of Indonesia, Cilacap Regional Government and the entire staff, all employees and miners, as well as Cilacap community, for the opportunities, kindness, cooperation and friendship that have been established for the past thirty years.

Success always,
Jakarta, December 2010

Ir. Alwinsyah Lubis, MM
President Director of PT ANTAM (Persero) Tbk

Iron Sand, People and Antam

Nature has been bringing together interests. It has provided benefits for the continuity of human life. From nature and return to nature. Iron sand, people and Antam, an interaction that once existed in an era.

Iron sand has become part of Antam's history. The presence of the company for over 30 years in Cilacap, Central Java, has its own contribution. Not only for the company as a business institution. As a State-Owned Enterprise (SOE), Antam is also the representation of people's interests. Thus, all the revenues and benefits for the state both in the form of tax and non-tax payments are returned to the people as well.

Antam's presence on the particular coast seemed to have been picked up by history. The Iron Sand Mining Project, which later became Iron Sand Mining Unit (UPPB) Cilacap, becoming one of pride projects in the early of the New Order era, a period in which Indonesia was keen to build the economy. Thus, the presence of Antam has made a real contribution in significantly improving their social lives through employment for local manpower.

The existence of UPPB Cilacap is without a doubt can be historically recorded as an important project that was first inaugurated at the beginning of the New Order Government. Its significance was shown by the presence of President Soeharto. With President Soeharto's direct visit to Cilacap clearly suggested the importance of the mission of the New Order Government, which at the time was driven to develop the economy through foreign cooperation in strategic industrial projects.

Later, Antam was able to answer that hope. Antam also proved that its presence in Cilacap has left a deep impression on the hearts of local communities as well as capable of contributing to regional development.

During three decades from 1970 to 2003, Antam operated iron sand mining project in Cilacap as one of its mining units that are spread over several islands. Overall, Antam manages a number of projects namely: Cikotok gold mine (Banten), Pongkor gold mine (Bogor), Kijang bauxite mine (Bintan, Riau Islands), precious metals processing and refining (Pulogadung, Jakarta), Martapura diamond mine (Martapura, South Kalimantan), Logas gold mine (Singingi, Riau Province), Pomalaa nickel mine (North Sulawesi), North Maluku nickel mine (East Halmahera), and Gebe nickel mine (Central Halmahera). As a business institution, Antam also carries the task of exploring and mining economic resources in Cilacap.

The atmosphere at the iron sand mining site of Lintang Dua. Lintang is the name for the area of mining operations at which time there were nine lintang.

However, over time, there were ups and downs. Iron sand as non-renewable natural resources, cannot be extracted anymore from the coast of Cilacap and other places under UPPB Cilacap such as Kutoarjo and Pelabuhan Ratu. In late 2003, Cilacap iron sand mining activities officially ended, because it is no longer economical to be operated. The sound of the magnetic separator, the machinery that separates iron sand and tailings, was no longer heard. The work of the eager miners' skilled hands was no longer to be found.

They have left behind the long days and nights under the blazing sun and pouring rain during the three decades.

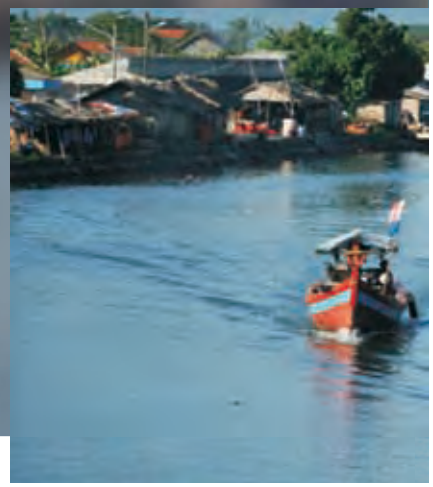
Antam is now no longer in operation but the traces were still left in Teluk Penyu. Antam not only focuses on the efforts to seek a profit, but wanted to carve out the time as a company that understands the importance of the relations of three balance pillars known as "The Triple Bottom Line", 3P (Profit, People and Planet).

Those three pillars become the foundation for a good and successful global company.

Today, the community on Cilacap coast still sees Antam with love. The abandoned mining sites have been turned into rice fields and fish ponds. The villages became green with a variety of plants. Rice, secondary crops, watermelon, trees of glodokan sewu, cypress, acacia, and green palm trees waving in the seaside adorn the new face of a village that is now designed as the "Tourist Village" of Karangbenda Village, Adipala District, Cilacap Regency, an abundant blessing of nature.

REACHING FOR HOPE

The sound of the ocean waves as well as clusters of sand along the Cilacap coast, Central Java, is the eternal witness. There, the work of those skilled hands was imprinted, filling the night and day in the blazing sun and rain. In their sweat there was determination, passion, and unrelenting dedication.



On top of a tower as high as 15 meters, a 23-year-old man, was ready at his place of duty. The iron tower he climbed was structurally similar to cellular phone base stations that today we can see everywhere. Before him there were mechanical control panels that he had learned to operate from a Japanese technical instructor named Kokayafa. On regular weekdays, Sobirin should already be at the place starting at 07:00 am. He had been there for two hours.

Although the blazing sun began to shine down the city of Cilacap, but the breeze from Teluk Penyu beach can reduce the strong heat over the tower that hit his body.

The tower was part of a building consisting of iron-steel and 20 cm thick teak wood as board of 2 meters wide bridge. The 100 meters long bridge was supported by dozens of steel columns as high as 5 meters from the surface of the 12 meters deep bay water. So, if you walk from the end of the pier at the tip of the land until the end of this wooden bridge you will reach

Belt Conveyor Cilacap in 1971

the tower building with diameter of five meters with four stands. This was called the ship loader, an equipment to load iron sand from land to ship. The equipment had a capacity of 600 tons per day.

And there in Sobirin's place the control center of activity on the pier was located. In the evening, from the top tower, the beautiful scenery of Cilacap city could be seen clearly. And it had brought its own atmosphere that characterized the lives of the workers there.

On the left side of the bridge, a belt conveyor was installed, a three-cm thick and one meter wide black rubber that was designed with a concave surface. Attached underneath were mechanical seating rails, idler rollers, which functioned to move the conveyor belt rubber that extended from one end of the bridge to the pier. When Sobirin pressed the mechanical panel in the tower, it moved the conveyor belt. They moved in circles, over and over again, just like the movement of escalators that we often find in shopping malls. Then fine black iron sand concentrate poured into the hollows of black rubber that automatically moved toward the end
of the pier. While at the end of the pier, a cargo ship was ready to accommodate the concentrate that was pouring down into its hold. The movements were similar to the way we ride on the escalator, even if we only stand still, but we move forward mechanically. That is, how the conveyor belt worked.

Since six months earlier, Sobirin had been working at the shipping section of the iron sand port. He had worked two months at the mining site with his friends, who most of them come from Cilacap region. He was transferred to the port because he only had Ship Engineering vocational high school (STM) education.

Although he had been at the port since 07.00am, he still had not started to operate the mechanical equipment, but that did not mean there was no activities. The workers had been ready according to each of their task. Mean while some others were busy organizing a welcoming ceremony. On the shore not far from the bridge, there was a tent and some chairs that had been prepared for guests. There was a table with a siren button on it.

That morning in 1971, was a very special day for the State Enterprise (PN) Aneka Tambang. The company that later abbreviated its name to PT ANTAM (Persero) Tbk (Antam). One morning that changed the life of community in Cilacap, Central Java. The city that was once deserted with isolated community, suddenly became very busy and "on alert" since a few days earlier. South Cilacap village and its surrounding area slocated right on the coast of Cilacap were sterilized.

Sobirin, one of former miner Antam Cilacap irond sand which operates the belt conveyor

The village that had been so quiet and remote turned into a center of activities. There were hundreds of people including mining workers, as well as committee and security forces specially deployed from Jakarta to run the execution of a big ceremony. In the area there was also a simple building that none other than the operational office of iron sand mining. The security was extremely tight. Not just anyone could enter or exit the region, other than the officers and interested parties.

That day, the number one person in the republic, was willing to come for an important event: inaugurating the first export shipments of iron sand concentrate to Japan, which was managed by Antam through UPPB Cilacap.

The time was 09.00 am. The heat of the city of Cilacap did not dampen the enthusiasm of local residents who flocked out of their homes. Along the roadside of Cilacap city, thousands of people lined up, waving their hands when the motorcade passed the city heading to South Cilacap Village towards Teluk Penyu.

The visit of Vice President of
Republic of Indonesia,
Sri Sultan Hamengkubowono IX (far left)
to Cilacap iron sand mine in 1971

PROJEK PASIR BESI TJILATJAP HASILKAN DEVISA $ 1,5 DJUTA

Berkata Presiden selandjutnja pada saat Indonesia memulai Pelita beberapa tahun jang lalu, hasil devisa jg diperoleh terutama dari hasil pertanian dan perkebunan. Setjara bertahap hal ini harus dirubah. Nilai ekspor hasil pertanian dan perkebunan tetap diperbesar tetapi dilain pihak ekspor hasil tambangpun harus harus ditingkatkan. Sebab hanja ekspor pertanian dan perkebunan kedudukan ekonomi Indonesia sangat lemah. Terlebih lagi dalam tahun2 mendatang kebutuhan akan devisa makin meningkat, baik karena untuk membiajai pembangunan maupun untuk memenuhi kewadjiban2 mentjitjil pindjaman2 luar negeri jg kita peroleh selama ini.

Projek Pasir Besi

Chusus mengenai projek pasir besi jg pembangunannja dibiajai sendiri oleh PN Aneka Tambang, Presiden menegaskan projek tsb dapat memberikan hasil jg berantai.

Artinja muntjulnja projek pasir besi di Tjilatjap, akan merupakan kekuatan penggerak ekonomi lainnja didaerah itu. Sebab lain dari separuh investasi dibidang

Pertambangan ini jg djumlahnja US$ 4,5 djuta ditanam didaerah Tjitatjap, jg sebagian besar berupa prasarana. Djumlah investasi itu tentu telah menghidupkan kegiatan2 ekonomi masyarakat, dan prasarana jg dibangun hendaknja dapat dimanfaatkan dgn tepat untuk menggerakkan kegiatan ekonomi lainnja. Bagi Pemerintah Daerah djelas pendapatannja akan bertambah dgn pungutan Ipeda/Ipeda dan lain2nja.

President Soeharto while visiting Iron sand Port to inaugurate the first export shipment to Japan. The event was covered by national mass media. There is seen clipping of Indonesia Raya daily newspaper, June 12, 1971.

"Pak Harto wis teka", they cheered saying that the President of Republic of Indonesia Soeharto has come.

A number of cars convoyed from the direction of Purwokerto city that four hours earlier departed from Yogyakarta. To reach Cilacap, a plane carrying the President's entourage had to land in Yogyakarta, because there was no airport in the small town of Cilacap.

Cilacap that was normally quiet suddenly becames warmed with people. The city that had been dreary went alive. The life had more color and dynamic with the presence of Antam there.

Since a few days prior to the arrival of President Soeharto, all hotels and inns had been fully booked for overnight dignitaries from Jakarta. A city that was moving forward from underdevelopment.

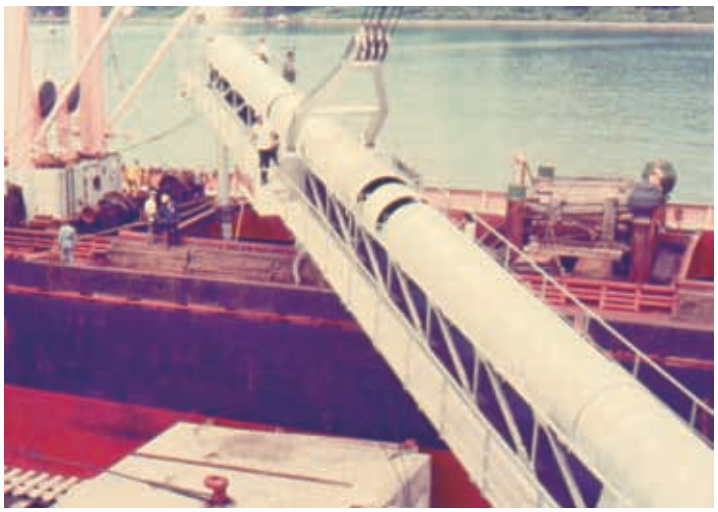
"Tjilatjap has been rapidly developed lately," a resident described the city's condition as reported by Kompas daily a few days later.

Top: President Director of PN Aneka Tambang, Ir. Hadianto Martosubroto, while inaugurating the transformation of Cilacap Iron Sand Mining Project to Cilacap Iron Sand Mining Unit.

Bottom: The inauguration ceremony of Iron Sand Mining Unit's officials.

From the distance of 100 meters up on the tower, Sobirin was witnessing a man arrived at the iron sand port under tight security. Wearing black tie suit with white shirt underneath, the man walked with steady steps, composed, a calm expression, and a smiling face. He was accompanied by a graceful lady with round face wearing sunglasses and round hair bun, in white kebaya and matching stole. There were dozens of people following behind them. Sobirin did not know for sure the people behind them. What he knew was, they must be dignitaries from Jakarta. They looked at him with reverence. He was someone who was greatly revered and respected in this country. He was President Soeharto accompanied by First Lady Tien Soeharto. They were visiting the Indonesia's first iron sand project.

The time had come, President Soeharto moved to the table to press the siren button. The siren went off marking the inauguration of Antam's first export shipment of iron sand concentrate to Japan. Besides pressing the siren, the event was followed by a ribbon cutting by Mrs. Tien Soeharto. The attendees immediately applauded. Sobirin also pressed the panel that he had been anticipating since morning. Then, a moment later the conveyor belt carrying black colored concentrate started to move and accompanied by the sound of the roaring mechanical engine. Once it reached the end of the dock of ship loader, black grains of concentrate pouring down and contained by a giant hold by None other than a Japanese-flagged ship, Nittei Maru. The 80 meters long ship was able to accommodate 22,000 tons of iron sand.



That day, Thursday 10 June 1971, around 11:00 AM, was the first transportation of iron sand concentrate from land through a ship loader to be loaded to a Japanese ship. The iron sand port with ship loader technology made in Japan was built a year earlier.

There was a general port in Cilacap, but it did not fit the specification of an iron sand loader ship requirements. Therefore, Antam built a special port for iron sand. The iron sand port was located in Teluk Penyu that separated Nusakambangan Island and Java Island.

The port was built by Antam with the cost of Rp320 million from total investment in all iron sand mining projects of Rp1.7 billion. During its construction phase, the mining activities had started as well. Six months earlier, the iron sand production, was piled in a bunker near the dock. The stockpile reached as high as 5 meters above the ground.

The iron sand concentrate is used as one of raw materials in steel industry. Its use is as supplement of raw material, iron ores. Meanwhile, the titanium content in iron sand also has the benefit to extend lifetime of fire-resistant stones used as blast furnace walls in steel processing.

The shipment of iron sand concentrate today, was a realization of sales contract between Antam and Nippon Kokan Kabushiki Kaisha (NKK) steel plant from Japan that will guarantee the sales within the next 10 years at the price of US$5.50 per ton. The contract was signed in November 1969. Thereby, if annual export target reached 300,000 tons, Antam may gain revenue of US$16.2 million per year after deducted by exploitation costs of US$300,000.

Loading process of
iron sand concentrate
From hopper to the ship.

The above figures suggested a promising business operations and fostering hope. It is no wonder if all who attended the inauguration that day were happy, proud and filled with gratitude. The sound of waves hitting the rocks on the beach, as if it joined the happiness, had enlivened the atmosphere that day.

After pressing the button, the president climbed the pier, walked over the wooden bridge and watching the moving conveyor belt. Beside him a man who was none other Antam's chief executive, was seen speaking to the president to answer questions and explain matters related to the iron sand port. While on the other hand, a tall, sturdy man dressed in safari holding an umbrella to protect the first lady who walked behind the president from the blazing heat of the sun.

A number of important state officials, as recorded by Indonesia Raya daily (12/6/1971), also accompanied the visit. They included Home Affairs Minister Amir Machmud, Minister of Mines Ir. Soemantri Brodjonegoro, Governor of Bank Indonesia Radius Prawiro, Central Java Governor Moenadi, Java and Madura Regional Defense (Pangkowilhan) II Commander Lt. Soerono.There was also seen a tall thin man with thick glasses. He was Prof. Dr. Sumitro Djojohadikusumo, an economist and one of the ministers at the time who later remembered as "Economics Guru" of Indonesia.

The President was apparently not satisfied to just look at the pier. The President entered Nittei Maru ship and witnessed closely how the heavy iron sand was flushed through a funnel, which was right above the ship. President's visit on Nittei Maruwas the culmination of the ceremonies at the port of iron sand. A moment later the president got off the boat and walked back through the bridge and continue the inspection of the mine site.

Meanwhile in UPPB Cilacap office located just one kilometer from the Iron Sand Port, another activity was waiting to be held. That afternoon, the president and his accompanying entourage, was scheduled to rest in the office. The office had an open arrangement without any partition. A special lunch had been provided. As a mining operations office that annually generated income, if we see it from today's point of view, the building was very simple. It is no exaggeration if we equate it with the structure of a primary school building, where every classroom was separated with woven bamboo walls, and there were glass windows in some parts of the outside wall. The office had a large yard with lush manicured grass. In the center there was a flag pole. While on the right side of this office, there was another building used as a warehouse of mine equipment.

That afternoon the office was transformed into a reception hall. The chairs and desks were removed from their original position. In the middle of the room, the tables were set up to put the dishes. Meanwhile the chairs were put against the left and right walls in alignment. On the other part of the office, there was a separate room that could not be accessed by just anyone. The dishes there, that had been prepared and been sampled and tested by a nutrition specialist doctor for its feasibility. The dishes were for the president.

Project office of PN Aneka Tambang during early Mining operations.

At the UPPB Cilacap office located only one kilometer away from Iron Sand Port, another function was ready to welcome the dignitaries.

"The UPPB Cilacap office practically seemed to turn into a public kitchen. There were at least 200 portions available," recalled M. Adang Priatna who took part in securing the event. Adang who was then a former KKO marine was assigned at Antam as head of security. KKO was the name of Marine Corps in the early New Order era. Adang, now 68 years old, is a retiree from general affairs division at UPPB Cilacap.

The activities during preparation for the inauguration of the iron sand mining.

Cilacap city seemed unprepared to provide decent lunch for the dignitaries from Jakarta. There were no eateries or restaurants that were able to serve food with presidential or high rank official's standards, because at the time, we could only found simple food stalls there. Therefore, the presidential welcoming committee specially ordered the food from a major hotel in Yogyakarta, Ambarukmo Hotel. The hotel had even supplied food a few days earlier for the meals of committee members and presidential security forces (Paspampres).

The president returned to Jakarta in the same afternoon with Cessna plane. The visit to iron sand port Teluk Penyu, was part of three-day working visit to Central Java. One of visits was to Klewer Market in Solo, a day before going to Cilacap. The ministers returned to Jakarta with Dakota plane. Other members of the entourage returned with express train Bima.

The president had left Teluk Penyu. However the engine that driving the belt conveyor continued working. The iron sand filled the holds of Japanese-flagged ships on daily basis. Nittei Maru, Nikko Kumaru, Nikyo Maru, and Bar were among the ships that alternately coming once a month.

As time went by, the port was no longer a single facility there. Not far from the location of iron sand ship loader, there was another port for ships transporting oil from Pertamina. Teluk Penyu area was also called the THR (People's Amusement Park), a famous tourist site there.

Antam continued to work to mine for hope of all parties involved there. Its presence in Cilacap has become part of regional economic development through the contribution of PAD (Regional Revenues) that was then called Ireda or Ipeda. It has also become part of the pulse of the surrounding community's socio-economic life.

The Blessing of Black Grains

Millions of tons of iron sand concentrate had been produced by Cilacap Coast. It provided livelihood for people and the business continuity for Antam as the gift of nature from God. The black ores of iron sand had generated millions of dollars that contributed to satisfactory performance of Antam.

Half a century ago, the natural wealth of Cilacap coast had been studied by mining experts. Japan, through Nisso Steel, was the only country interested in conducting exploration along with Mines Directorate in Jakarta in 1960. Long before that, Indonesian people actually had known that there was iron sand deposit with titanium content along the coasts of Java Island, particularly Cilacap Coast.

According to mining expert Bachrawi Sanusi (Kompas, 14/1/1979) private companies around the year 1910 had attempted to process iron sand to iron and steel. However they failed due to metallurgical operational difficulties and economical reasons. At the time, metallurgical technology in Indonesia had not been able to separate titanium from its bond with iron content in the mineral.

Iron sand is a type of mineral that has economic potential. Antam as a mining company would not want to let the business opportunity of iron sand slip away. The iron sand business was one of Antam's businesses besides gold, nickel, bauxite mines and precious metal processing. In fact, at the time, it was the only company that showed good performance and managed to obtain concession from the Government of Republic of Indonesia to operate iron sand mining in Cilacap.

Iron in the sand concentrate is the mix of processed hematite and magnetite as supplement material of regular iron ores. Therefore even though the iron concentrate level is lower than regular iron ores, the concentrate has its own market. The main market of Indonesian iron sand at the time was Japan.

In business aspect, the Cilacap iron sand mining officially commenced after the signing of contract between PN Aneka Tambang and steel company Nippon Kokan Kabushiki Kaisha (NKK) from Japan in November 1969. The contract secured the 10-year sales until 1980. Japan used to be the main market of Cilacap iron sand project during that period, while it was only a small part for domestic market.

Japan is a country that had long been eyeing the iron sand of Cilacap. According to Sihombing, the reason to import iron sand concentrate from Indonesia was that it would be far more efficient than importing iron ores from Australia as the material for its steel processing industry. Besides, geographically, the shipment of iron sand from Indonesia was faster and far more efficient.

Iron sand loading
To the ship
(FOB for outside
Java/Export sales).

When the mining began in 1970 the iron sand concentrate production only reached 13,988 tons. There had been any sales that year, because the export facility of iron sand port was still being developed. Only after the iron sand port construction was completed, the iron sand exports to Japan was commissioned by President Soeharto on 10 June 1971 with the target of 300,000 tons per year, to meet NKK's demand.

The specification of iron sand content required by Japan was: Total Fe $\geqslant$ 55%, TiO_2 $\geqslant$ 10%, Al_2O_3 $\geqslant$ 6%, and MC $\leqslant$ 10%.

In 1971 the production of iron sand concentrate reached 286,569 tons. From that production amount, 240,702 tons were exported and 2,308 tons were sold in the country. The total sales in the first year were 242,740 tons.

However in its report in the early 1972, G. Partakusuma as Directors Representative of UPPB Cilacap, told media that the first year sales were approximately 250,000 tons. With sales price per ton was at US$5.50, Antam's revenues in the first year reached US$1,375,000.

In the production aspect, to obtain iron sand concentrate of 250,000 tons there should be 1.5 million tons of sand to be excavated. Such production volume could be achieved by employing seven units of MS that operated non-stop in three shifts within 24 hours. In the following development, the iron sand mining facilities were increased to 10 units of MS (Ten Lintang) to achieve the target of 300,000 tons.

The production volume was achieved by seven units of MS operating in three shifts within 24 hours.

The decline of Japan's demand was due to global oil price boom that affected Japan.

The export target of 300,000 tons was only achieved in 1974. That year the total sales of iron sand concentrate reached 379,271 tons. Of that amount, 6,500 tons were sold in domestic market. However two years later the sales began to fall short of target. In 1976, exports declined to 284,010 tons and in the following year saw a further decline to 257,602 tons. The exports plunged to 87,648 tons in 1978, and in 1979 Japan could only afford to buy 9,150 tons.

The drastic decline of exports to Japan was not caused by the decreasing production performance. The iron sand concentrate production reached 311,519 tons in 1977 and 233,546 tons in 1978. The decline of demand from Japan was caused by global oil price boom that affected Japan. The country did not have any oil mines, so they had to import oil to run their industries. Thus there was an industry restructuring in Japan at the time. NKK was affected by this condition that resulted in the decline of their production followed by decrease in iron sand demand from Cilacap.

The year 1978 became the first period in the history of Cilacap iron sand. In the difficult condition, Japan could not carry on with the purchase contract until 1980. The impact was Antam restructured its organization by transfer and dismissal of employees. However, Antam still continued a small-scale production. In 1979 it only produced 79,887 tons and in 1980 only produced 62,625 tons.

Over the eight year period with Japan, the total production of iron sand reached 2,402,710 tons, with export sales at 2,080,265 tons o US$1,444,457. While total domestic sales during the eight year period were at 75,199 tons.

PRODUCTION AND SALES DATA OF IRON SAND CONCENTRATE PERIOD 1970-1978

YEAR	EXPORT	DOMESTIC	TOTAL SALES	PRODUCTION
1970	-	-	-	13,988
1971	240,702	2,038	242,740	286,569
1972	274,156	2,000	276,156	265,627
1973	258,771	-	258,771	280,930
1974	372,771	6,500	379,271	365,206
1975	304,605	5,200	309,805	352,991
1976	284,010	12,023	296,033	292,334
1977	257,602	26,033	283,635	311,519
1978	87,648	21,405	109,053	233,546
TOTAL	**2,080,265**	**75,199**	**2,155,464**	**2,402,071**

Source: A Brief History of Iron Sand Mining Business Unit, PT Antam Tbk., January 2001

The halt in export market demand, had forced Antam to make a new breakthrough by boosting domestic sales. In the eight-year period the highest sales for domestic market were only at 26,033 tons in 1977. The domestic sales were aimed at fulfilling the demand of cement plantswith specification of required iron content: Fe > 48%, Fe2O3 > 68%, and MC > 10%.

The domestic market was divided into two groups of shipment. First was Free on Board for cement plants outside Java Island namely: Semen Padang Plant, West Sumatra; Semen Baturaja Plant, South Sumatra; Semen Bosowa Plant, South Sulawesi; Semen Tonasa Plant, North Sulawesi; Semen Kupang Plant, East Nusa Tenggara; and Semen Andalas Plant, Lhok Nga, Aceh.

Second was Free on Truck for a number of cement plants in Java namely: Semen Tiga Roda Plant, Citeureup, Bogor; Semen Cibinong Plant, Narogong, Bogor; Semen Nusantara Plant, Cilacap; and Semen Gresik Plant, East Java.

The sales debut of iron sand concentrate for domestic market started when President Director Hadianto Martosuboto called Sihombing who then was posted in Pomalaa, Southeast Sulawesi, to return to Java to manage UPPB Cilacap. As domestic need of iron sand at the time was only for cement industry, he immediately made an approach by meeting with all leaders of cement plants acoss Indonesia. The domestic demand then skyrocketed.

During his visit to Japan, Sihombing also discreetly lobbied NKK to resume their purchase. They agreed to take a number of shipments every year. During his leadership, Sihombing as Directors Representative of UPPB Cilacap in 1980-1985, Japan was recorded to have made purchases although in the very small amount compared to the earlier periods. The following are exports to Japan during Sihombing term: 24,076 tons (1980), 25,520 tons (1981), 11,000 tons (1982), 10,251 tons (1983), 12,000 tons (1984), and 12,150 tons (1985). After Sihombing left, there were only two export demands, which amounted to 5,500 tons in 1987 and 10,521 tons in 1994.

The high domestic demand had prompted Antam to open a new mining locations outside of Cilacap, including Kutoarjo and Lumajang. The domestic production and sales were even much larger than the Japanese demand in the period1971-1978. With the increase in the domestic market for the needs of iron sand, Antam added eight units of MS in Kutoarjo and two units of MS in Lumajang. Within 20 years after the period of Japan, the concentrate sales had peaked at 544, 199 tons in 1999. And for seven years from 1993 to 2000, The average sales were above 300,000 tons per year.

SALES DATA OF IRON SAND CONCENTRATE
PERIOD 1980-2000

YEAR	EXPORT	DOMESTIC	TOTAL SALES	PRODUCTION
1970	-	-	-	13,988
1971	240,702	2,038	242,740	286,569
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1976	284,010	12,023	296,033	292,334
1977	257,602	26,033	283,635	311,519
1978	87,648	21,405	109,053	233,546
1979	9,150	27,945	37,095	79,887
1980	24,076	29,802	53,878	62,914
1981	25,520	55,423	80,943	86,625
1982	11,000	96,517	107,517	183,022
1983	10,251	122,699	132,950	132,887
1984	12,000	112,154	124,154	82,997
1985	12,150	134,576	146,726	130,930
1986	-	148,670	148,670	153,271
1987	5,500	166,516	172,016	193,986
1988	-	169,240	169,240	178,782
1989	-	134,196	134,196	121,828
1990	-	79,821	79,821	110,335
1991	-	107,645	107,645	87,738
1992	-	143,051	143,051	147,882
1993	-	195,573	195,573	214,152
1994	10,521	230,208	240,729	218,976
1995	-	200,290	200,290	218,364
1996	-	215,151	215,151	257,027
1997	-	239,405	239,405	249,024
1998	-	388,417	388,417	317,891
1999	-	282,316	282,316	302,336
2000	-	217,423	217,423	243,149
TOTAL	**2,200,433**	**3,572,237**	**5,772,670**	**6,176,713**

Source: A Brief History of Iron Sand Mining Business Unit, PT Antam Tbk., January 2001

Surge in demand of iron sand by the cement industry started in 1991 that reached 206,002 tons. Sales increased dramatically from previous years that were less than 200,000 tons. The increase in sales took place under the leadership of Samuel Hermawan, Cilacap UPPB Authorized Director from 1989 to 1991 period. At a mine in Srandil area, 25 km east of Cilacap, in February 1992, Hermawan told reporters that the company would increase production to 264,000 tons in 1992. In fact, sales in 1992 actually exceeded the target, reaching 283,064 tons.

In 1992 the iron sand mining performance was increasing along with the domestic market demand to meet the needs of cement plants. Amran Abdullah, former UPPB Cilacap Authorized Director period of 1992-1993, described the situation.

At that time, among the seven cement plants that had most needs of Cilacap iron sand were Tiga Roda cement plant, of 150,000 tons, followed by Padang cement plant (36,000 ton), Andalas (21,000 tons), Gresik (16,000 tons), Nusantara (15,000s ton) and Kujang (12,000 tons).

The high domestic demand prompted Antam to open new mining locations outside of Cilacap. Among others Were Pelabuhan Ratu, Kutoarjo and Lumajang.

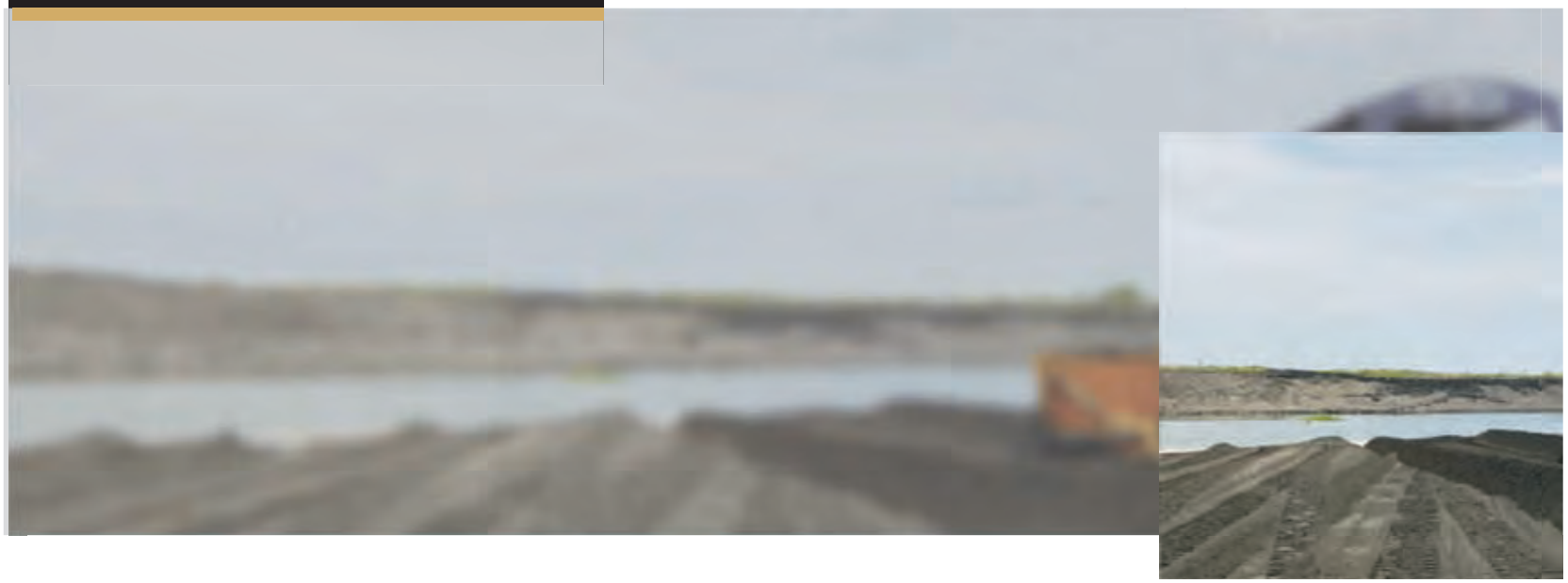
In the following years, production continued to increase until approximately 400,000 tons per year. The peak of sales was in 1999 with record sales at 544,199 tons.

The price of iron sand in 1994 for free on truck (FOT) was at Rp21,250 per ton and free on board (FOB) at Rp24,500 per ton. Thus if the average sales price per ton was at Rp22,000, Antam's revenues during its peak in 1999 were at Rp11.97 billion.

The following period, during three years of production and sales of iron sand saw further decline to 218,671 tons (2001), 188,084 tons (2002), and 93,547 tons (2003). Cilacap Iron Sand Mining was terminated as of 31 December 2003 because it was no longer economical. During the 23 years period from 1980 to 2003, iron sand sales reached 5,324,518 tons. If the export sales to Japan were added, then the iron sand sales reached 7,479,982 tons throughout its entire journey of 33 years.

When compared with other mining units such as gold, nickel and bauxite, Cilacap iron sand mining value was far below them. However, during 33 years of operations there, iron sand has contributed and benefits to many parties. Iron sand was "black grains" that generated millions of dollars as a contributor to Antam's satisfactory performance.

A TRIP DOWN THE MEMORY LANE



Various stories have been engraved on the minds of everyone in Cilacap along with Antam. The admiration was due towards the wealth of this human earth. It started from an introduction, followed by laughter, then a struggle between emotion and logic, to the sweat that embodied the love of a fond memory. The stories will be eternal and become evidence of an unabated dedication.

Antam never cease to care about people and nature. The interaction between the two entities will not be separated. This is where we find the meaning of a dedication.

The community's socio-economic condition naturally changed since the UPPB Cilacap iron sand project operated as the supply and demand law took place.

"Pasir Besi" Over "Antam"

Pasir Besi (iron sand), two words that since that day had become an important vocabulary for Cilacap coastal communities and the topic in their daily conversation. The communities around the mines were even more familiar with the phrase "Pasir Besi" instead of calling "Aneka Tambang", the name of the company operating the mine project. The community's socio-economic condition naturally changed since their on sand project of UPPB Cilacap running. Law of supply and demand took place. Iron sand project required manpower, while people craved for a job that was economically better.

Surrounding communities, who originally relied on their livelihood as fishermen that was so prone to change of season, began to switch professions. Antam conducted large-scale recruitment. Not only the fishermen who then worked to mine the iron sand. Other sectors also came to enjoy the economic benefits as a chain effect. Starting from the suppliers of mining operations needs, transportation, and others.

Iron sand mining project located in Cilacap Regency, which is the largest region in Central Java. The regency with the Indonesian Ocean as its southern boundary which separates Java Island and Nusakambangan Island.

Transfer of iron sand concentrate from stockyard to stockpile.

In the north it borders with Banyumas Regency, Brebes Regency and Kuningan Regency of West Java Province. In the east it borders with Kebumen. While in the west it borders with Ciamis Regency and Banjar City of West Java Province.

The region located between $108^{0}40^{0}30^{0}$-$109^{0}30^{0}30^{0}$ of east longitude and $7^{0}300$-$7^{0}45^{0}20^{0}$ of south latitude. It has an area of 225,360.84 ha, which is divided into 24 districts, 15 sub-districts and 269 villages. The highest area is Dayeuhluhur District with altitude 198 meters above sea level and the lowest was Central Cilacap District with altitude of 6 meters above sea level. The longest distance from west to east is 152 km from Dayeuhluhur District to Nusawungu District and from north to south along the 35 km from the South Cilacap District to Sampang District.

Along the stretch of its beach, Cilacap has long been known to have natural wealth. The location of natural wealth extending from the southern coast of Yogyakarta, Jampang Kulon in Sukabumi, to Pelabuhan Ratu in West Java. Of all the locations, the highest content was found in Cilacap. In the region the main minerals found in iron sand deposit included magnetite ore (FeO.Fe2O3)/Fe3O4,

Pay loader prepares to lift the iron sand concentrates.

hematite (Fe2O3), and ilminite (FeO.TiO2). Besides the three minerals, there were also elements of Al2O3, S, P, Mg, and Zn in small quantities.

The sand deposits were formed due to weathering processes of diorite-andesite rocks that generally contain the aforementioned three minerals. Meanwhile such type of rock can be easily found in the mountains along the island of Java. Result of the weathering process, the rock would be crushed because of differences in climate and temperature of other endogenous forces. Then the crushed rock went through the process of transport through large rivers on Java Island, which many ended in the South Coast of Java Island. During the degradation process, which was the transformation from rough into fine materials, large-sized particles into smaller particles or sand.

Meanwhile in the estuary of the river, the fine particles are swept by the strong sea waves and brought back to the shore along the coast, forming the iron sand deposit. Iron sand deposit such as found in the Cilacap area, starting from the Cilacap coast eastward to the Sungai Ijo. Also in Kebumen area and South Purworejo to the South Coast of Yogyakarta.

Aerial view of Teluk Penyu.

There is always discussion in every exploration activity.

Field Inspection.

Exploration activities in bid to find the content of iron sand elements had been done long before the presence of Antam. From the year 1960 to 1962 , exploration was conducted by the Directorate of Mining Jakarta in cooperation with Nisso Steel of Japan.

Exploration is an activity to collect data of reserve area to be used for the basis of feasibility studies. Such data may include: a map of reserves, the reserve area situation maps, facilities and infrastructure of the reserve area, both proven or probable reserves, as well as the quality of reserves according to laboratory results. Iron sand in general is analyzed for its total magnetic degree percentage of Fe.

Areas explored were Block A, B, C, D, and E. Location Block A and B were in the area between the THR (People's Amusement Park) Teluk Penyu Coast, Cilacap to Serayu River estuary. Block C located in the area between the estuary of Serayu River and Bengawan River estuary. Block D located in the eastern of Bengawan River estuary eastwards as far as about 5.5 km in Welahan Kulo village. Meanwhile, Block E was located between Welahan Kulon village and Sungai Ijo estuary.

They conducted the exploration by making test pit for deposit on water level. As for the sediment below the water level, a two-meter long equipment called Spiral Hand Auger was used. While drilling equipment used was called Scout Drilling.

Exploration is an activity to collect data of reserve area that will be used as basis for feasibility studies.

Seven years later, PN Aneka Tambang conducted re-exploration in these areas with different methods. At this time, Antam had been recruiting exploration workers. This was a new world for some workers there. One of them was Kadarusman. The simple dark-skinned youth was among the youths who worked for Antam since the beginning of the project in 1969. He graduated from Construction Vocational School (STM Bangunan) in Cilacap, but it was not an obstacle for him to work in the exploration department. Apparently, he could learn quickly.

Some of his fellow students also worked in the iron sand project. Among them were Sobirin and Daryono. Sobirin, whose career later developed until he became Head of Production until his retirement. While Daryono, although he had the construction engineering education, he was trusted to handle the powerhouse and the maintenance of electrical machines. Many young men like him, though with different educational backgrounds could work well. It might be due to the character of the people there.

Kadarusman became one of the exploration team members with Sumanto and Budiarto, his senior, who before joining Antam had involved in exploration activity in previous years at the General Management Board of the State General Mining Companies (BPU Pertambun). Sumanto had the expertise in topographic mapping. The three of them were the core staff for exploration.

Dump truck transferring iron sand concentrate.

Each exploration was conducted by six workers, including the foreman. Based on team, there was a team leader and field supervisor. Workers employed in the exploration process were local manpower. For example, when they conducted exploration outside of Cilacap, they would seek workers from local residents. While the duration of process for one area of exploration was started from area mapping until the actual results were identified depended on the area of region. However most of them were completed in two months.

They worked from 07.00 am until 04.00 pm. The needs for drilling and exploration must be prepared properly, including food and emergency tents during the operation. The exploration team also rented local resident's house as its base camp until the exploration was completed.

Among them, Sumanto was the one who managed the mapping process including which parts to be drilled or explored. With mapping technique took a distance of 100 meters of North Latitude and 20 meters of South Longitude. The points that had been determined then were drilled until a certain type of samples obtained to be taken to the laboratory of material examination. The analysis performed included magnetize degree of Fe. For further analysis then the depth of drilling was calculated to be as deep as 20 meters, the drilling area, density, material concentrate, to find the volume.

During the three years period of 1969-1972, they reexplored Block A, B, C and E. In Block A, B, and C, detailed drilling with spacing 100 X 20 meters was conducted with the construction of test pits for deposit on the water level and the use of Spiral Hand Auger for deposit below the water level. Similar procedures performed for the Block E with a spacing of 400 X 20 meters. The UPPB Cilacap exploration team's findings, of all mapping areas in Cilacap, Block C in the area Bunton, Adipala District, was found to have the most deposit.

In addition to locations in Cilacap, in 1972 they conducted exploration in Wates area, Kulon Progo, Yogyakarta. The location was precisely between the Progo River estuary and the Bogowonto River estuary. Furthermore, from 1975 to 2000, UPPB Cilacap assigned them to conduct exploration in southern coast of Java Island namely: Purworejo, Pameungpeuk (Garut, West Java), Jampang Kulon (Sukabumi, West Java), Lumajang (East Java), Paseban (Jember , East Java), and Wates (Yogyakarta).

Exploration activity was not well understood by most of local residents. In 1969, G. Partakusuma who led the exploration in Cilacap often found funny things regarding the attitude of local residents. He used to go back and forth with his coworkers in the exploration activities to transport equipment in a Land Rover pick up that read "Aneka Tambang". The local residents there did not know what Aneka Tambang was. When the car stopped, people gathered around the vehicle that was carrying a lot of rope. They would joked among themselves and said, "The name is Aneka Tambang. It must because there are a lot of ropes in this car. "

Another funny incident was again found by G. Partakusuma who became Head of Cilacap Iron Mining Project in the period of 1970-1976 as the Authorized Director. At that time, Cilacap Regent Kartabrata, or often called as 'Pak Karta'. Meanwhile Partakusuma was usually called 'Pak Parta'. Due to a mistake made by people who could not distinguish Pak Karta and Pak Parta, he often received gifts of cakes and flowers, which were actually intended for Pak Karta, the regent. Gifts are often misdirected to the house of Mr Parta. Because the cake was already sent, he felt embarrassed to return them. The story was written in the "Four Decades of PT Antam Tbk.: Understanding Nature, Crossing Time".

Working at the exploration site, aside from exhaustion, had also made Kadarusman and all of team members of ten separated from family, especially if the location was outside of Cilacap. They could not come home often in order to save money.

One day after they had traveled quite far to reach the exploration destination area. At that time, they went along the river in Jampang Kulon, Sukabumi, West Java, for several hours on wooden boat. It did not end there, the team had to continue the journey on foot to get to the designated remote area for another two kilometers while carrying exploration equipment. This experience gave them a chance to know the various characters of people invarious areas of exploration, which was fun for them, both in coastal and inland areas.

Kadarusman, exploration staff that has worked for 35 years.

This is the portrait of determination of the Antam's workers in UPPB Cilacap. They continued to work with full dedication until their retirement. In fact, Kadarusman who retired from Antam in 2004, still devotes his time for the company that needs his expertise. When this script was written he was 62 years old. However he was still energetic at his old age. He told the story spiritedly, about the period during which he worked as an exploration staff for 35 years. He is one of the iron sand exploration specialists that Antam has once had, besides Sumanto and Budiarto.

"While working at Antam, I am grateful to be able to help some relatives and our children completing education up to university," he recalled one afternoon in early November 2010.

Cilacap Iron Sand mining employees.

From One “Lintang” to Another

The iron sand mine workers, work 24 hours non-stop alongside The magnetic separator machines to dig “lintang”.

After exploration activities that had been conducted since 1969, Antam began the mining operations in 1970 in accordance with Decree of PN Aneka Tambang Board of Directors No. 30 dated 8 September 1970. Two years later the Decree of Mines Minister No. 621/Kpts/M/Pertamb/1972 dated 2 December 1972 was issued. As well as in accordance with Decree of PT ANTAM (Persero) Tbk Board of Directors No.256a K/0251/DAT/2000 dated 15 May 2000.

The activities of management and mining operation took place in the UPPB office on Jalan Penyu, Cilacap 53211. There were five buildings in the office area consisting of office buildings, warehouse and workshop. On the south side there was a staff housing complex opposite the office consisting of Block A, B, and C with a total of 38 houses. Employees generally originated from outside of Cilacap, and for a certain level of positions, they received company's housing facility. The housing complex was only a few hundred meters away from the office. So if there were work-related urgent matters outside working hours, they could quickly come to the office.

UPPB Cilacap office was headed by an Authorized Director, supported by 100 employees. They consist of a Corporate Secretary who supervised the Finance Bureau Head and General Bureau Head with all staff below them. Further more, there was a Production Coordinator who supervised the Mines Bureau Head and Engineering Bureau Head with all staff below them. Each bureau was in charge of three Department Heads, and each one of them supervised several sections.

The front yard of Cilacap Iron Sand Mining Unit Office.

UPPB Cilacap Authorized Director post was first held by Ir. G. Partakusuma in the period of 1970-1976. Then the authorized director post was held respectively by Ir. R. Soetardjo (1976-1977), Ir. Supolo Kartoredjo (1977-1979), Ir. R. Obos Kartadipura (1979-1980), Ir. T.N.P Sihombing (1980-1985), Ir. Subagyo (1985-1989), Ir. Samuel Hermawan (1989-1991), Ir. Amran Abdullah (1992-1993), Ir. Suharto Martosuroyo (1993-1995), Ir. Paryono Hatmosudaryo (1995-1999), Ir. Saefudin (1999-2002), RM Suprihadi SE (2002-2003), Ir. Ayi Jumarna (2003-2004) and Teguh Prasetyo BE., SE. (2005- June 2006).

Communication with Jakarta head office was still very limited. Although there was a phone line, it could not be used freely due to the high cost of long distance communications. The only Long-distance communication channel was a radio transmitter with SSB (single side band) technology with a frequency of 73.9. It was used three times per day with a special schedule of 8:00 to 9:00 am, 11:30 am to 12:00 pm, and 2:30 pm to 3:00 pm by special operators. SSB operators on duty recorded messages from Jakarta, and vice versa submitted reports to Jakarta. Any incoming or out going news must signed by the Authorized Director.

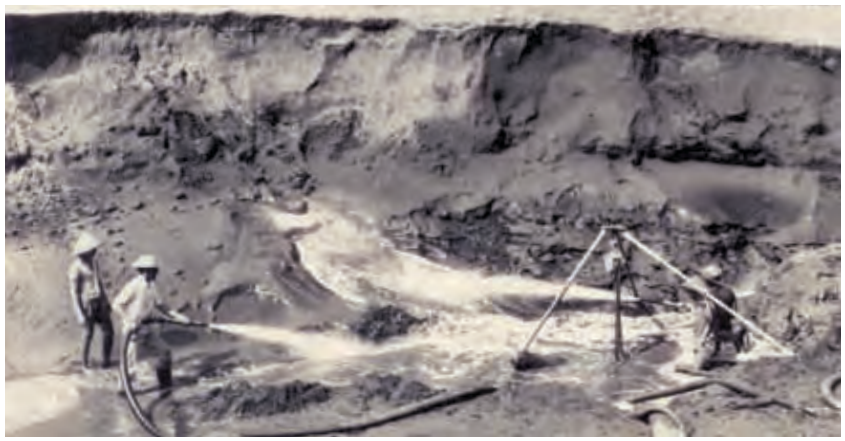
The iron sand miners worked alternately in three shifts, working 24 hours non-stop following the rhythm of magnetic separator machine and the sound of the sand suction vacuum pump and spray pumps.

Most workers were young men, who after they were accepted to work in mines, not necessarily became a permanent employee. They generally went through as daily workers with daily wage of Rp125.

From 1970 to 1975, mining locations were in Block A and Block B with an area of 1,400 hectares in the THR Teluk Penyu, Cilacap Coast to the west side of the Serayu River. The location of Cilacap iron sands reserves were separated by two rivers. Serayu River in the west and the east side was the Bengawan River. Most of the mine sites located on land owned by the Army that was rented by Antam during mining operations.

At the beginning of mining, the iron content reached 55% located in the western side of the Serayu River. But further to the east of the content was lower. Then in 1975-1987 mining was conducted in the Block C with area of 1,568 ha from Bunton Beach to Bengawan River and Block D in 1987-2004 from the coast of Karangbenda Village, Adipala District, to Welahan Kulon with area of 579.9 ha, which was about 20 km from Teluk Penyu.

Exploitation of iron sand, including the mining and cleaning activities, which began in August 1970 moving from the Teluk Penyu area to the east of Cilacap, has gone through several periods based on the licenses owned by Antam. In 1970-1975 the mining was conducted in the A/B region that was from Cilacap to the estuary Serayu area based on Mining Concession (KP) DU 108/Jateng. In 1975-1987, the mining was conducted in the C area, which was the coast of Bunton Village to the estuary of Bengawan River, based on the KP DU 110/Jateng. While in 1987 until 2003, mining was conducted in the region D, which was in the coast of Karangbenda Village, Glempang Pasir and Welahan Kulon, based on the KP DU 109/Jateng.



The blazing sun of Cilacap Coast, the cold night air, are their friend amidst the sound of waves.

Inline with market demands, UPPB Cilacap in 1979 developed the mine location in Pelabuhan Ratu for three years. Then the Kutoarjo iron sand mining, Purworejo Regency, opened on 11 November 1987 and started its sales in 1989. Iron sand mining in Lumajang also opened in 1998.

The workers had a unique way in mining for us who have never witnessed such mining. The sand of the beach was sprayed with water with a certain degree of pressure from the water jet pump. Such method of working was referred to as open pit mining with a system of hydraulic mining and back filling. They called the sand spraying activities with the term "shoot". If the location were on the banks of the river, then the water used for spraying would be from the river. On the beach, the seawater is sucked by the pump to shoot the sand.

There were five to seven people at one point of mine called the "lintang". During the mining project there, there were 10 lintang and 10 MS (magnetic separator). The number of lintang was consistent with the target of iron sand concentrate production each year.

If there were 15 workers in each shift at every lintang, then the total number of workers was 150 people. A lintang is a location where there is a MS and other associated equipment. Magnetic separator serves to separate the mixture of iron sand and tailing to produce iron sand concentrate.

MS machines use five drum magnets (DM) and one Sieve drum. DM capacity is measured by Gauss unit, a term that takes after the name of the discoverer of a magnet. Each DM with a capacity of 1200 Gauss (DM I), 1000 (DM II), 800 Gauss (DM III), 600 Gauss (DM IV), and 500 Gauss (DM V). While the Sieve Drum has a diameter of 50 # (mesh). The five DMs were used to meet consumer demand that required the rate of Fe⩾ 55% during the mining period in 1970 and 1978. Since 1978 until the last days of the mining, only three DM were used for Cilacap mining region with an additional of two Sieve Drum for Kutoarjo region.

The mine workers could not directly shoot the sand before excavated of two to three meters deep with a diameter of five meters. From this hole, then the sand forming the walls that can be sprayed. When the walls were sprayed, the sticking sand to break down into pulp and collected in the excavation pond ready to be sucked by the mining pump and then channeled to the MS.

At that point, the sand that had been sucked was separated between the tailing and its iron sand concentrate. Non-magnetic tailing sand was discharged in the back of the MS machine that was directly pumped to backfill the former mine pit. While at the front of the MS there were two pipes that poured fine black grains contained in the stock yards and ready to be transported by a pay loader to be loaded into dump trucks. The trucks then carried them to the iron sand port where the ship loader was.

The process since mining, separation of iron sand concentrate until shipment.

As the walls of the mine pit were sprayed every day, the width of the mining pit expanded. Usually, the mining would be stopped when the pit reached a diameter of about 20 meters. After that, the miners would create another new pit. The method of mining was apparently not so difficult, as it did not need special knowledge for the workers there. A modest training was quite sufficient for that. Therefore, many fishermen communities in Cilacap were employed in the mines. However, every person applying must pass the test as a requirement.

Daryono, a young graduate of STM Construction Cilacap, when applying for a job at UPPB Cilacap should take the test that day. Any applicants must pass the tests. He had to dive into mining pit. For Daryono whose figure was shorter the average men there, about 155 cm, it made him nearly drowned because of the mine pit water was as high as his chest. All day long he was floating and shot the sand walls. An Antam employee on duty for the test, then reported the test results to a Japanese supervisor named Muramoto. Fortunately he passed the physical test.

Muramoto was described as a very disciplined and vicious. Muramoto was very strict in ensuring work safety in mining. For example, if there were workers who ride the truck by clinging on the vehicle, Muramato would firmly reprimand them. Besides him, there was also another Japanese named Watanabe. While in the iron sand port there was Kokayafa.

In fact, although he was tested as other mining workers, Daryono later did not even shoot like his colleagues. He was placed in the mining equipment warehouse. He worked with electrical mechanics and machinery maintenance. It was a task that was the opposite of his educational background.

South Cilacap region in 1970 was very quiet. The location of Lintang Satu in Teluk Penyu was far from the residential area. There were no permanent roads passable for vehicles. It was Antam that later built several asphalt there. It was dark at night, because the electricity from PLN had not reached the region.

The miners worked at night with only lit by paraffin lamps. Daryono was part of the employees who made the installation of electric lighting around the UPPB office that was distributed from a powerhouse.

Powerhouse (generator house) also provided electricity for the propulsion engine of pump motor and magnetic drums of MS machines. Initially two generator units were used with their each power of 125 KVA (115 KW). In the later development, with higher fuel prices, the maintenance costs were also high, during the late years of mining in the 2000s, power generating was switched to PLN.

Iron sand mining on the seashore had its own challenges. Surianto, a man who had worked in UPPB Cilacap as Head of Mining during 1977-1990, every day should be down the mine site. The locations could not be reached by car that must be parked on the street, because they could not go on the sand. He must walk to supervise the work of his subordinates. It took half a day to completely monitor one lintang and returned to his car.

At first, the mine was still in Teluk Penyu, not far from the UPPB Cilacap office. It was in walking distance for Surianto and other mining workers from the office. When the mine site moved eastward, they could no longer reached it on foot. The farthest mine site was in Srandil, about 25 km away from UPPB office. The workers of each shift were dispatched to the site with trucks.

Communication was not easy either. There were no phones or handy-talky as means of communication from the office to the mine site, which caused any development could not be delivered quickly. It made him often late to have his meals. He must wait for the foremen's reports to the office or home at every shift change of miners who submitted documents for his signature. His responsibility made him to always be vigilant in monitoring any developments at the mine site. He could not settle to eat lunch or dinner, if he had not received reports from his subordinates.

"Because there were always problems that arose in the field," he said one afternoon in November 2010 at Antam Building on Jl. TB. Simatupang, Jakarta, when the author met him at his office on the third floor. Although retired, he was still trusted to lead one of Antam's subsidiaries.

Mining on the coastal site was actually not difficult. The pits that had been extracted their iron sand, according to the regulation must be closed again. The remaining minerals in the form of non-magnetic sand must be returned. This required workers to do it. However, at the time of high tides, tailing sand automatically covered the pits from being dragged the sea waves. While mining equipment, must often be moved to the shore so as not to get wet.

However, there were always challenges. Because of miscalculated the tidal season, the equipment was often suddenly exposed to high tide. When it happened, the equipment would be buried in the sand, and cleaning was needed before it could be used again. In fact, sometimes the equipment could be dragged out by waves to sea.

At the mine site adjacent to the agricultural fields, sometimes there were misunderstandings. The residents' misunderstandings were caused by lack of communication. This usually happened when the mine tailing accidentally spilled into the rice fields. When the tailings spilled over into the fields, people would think the workers of the project intended to filled and acquire their fields that enraged them and protested to the employee.

In Cilacap, although the lintang locations were moving from one place to another, but it was not so difficult. Because in addition to mining equipment can be dismantled, the metal equipment weighed hundreds of kilograms, they were transported by heavy equipment. But it was not what experienced by Surianto and his subordinates when they opened the mine in Pelabuhan Ratu, West Java. Because it was a small mining unit, the equipment could not be transported by heavy equipment. They should carry themselves the 400-500 kg equipment.

The eight year iron sand project has given many colors and hope. The young people there, especially those educated with minimal level of STM had a promising job. Working in the iron sand mining became a dream job for many youths. Their pride grew, there was even a kind of expression, "The parents who have a daughter, would love to have a son in law who works as a mine worker, because her life would be guaranteed." At that time of young miners had bargaining value so high in their eyes, and later these young men produced later generations with a better life. The children of mine workers were later able to have higher education than their parents until college.

The unexpected thing happened. The sales contract of iron sand concentrate to Japan, which initially guaranteed for 10 years until 1980 was terminated two years sooner. In 1978, Japan stopped the demand because of rising global oil prices (oil boom) and there structuring of the industry, that led to the halt of mining activities.

At that time Antam's management made a questionnaire. The workers were asked to choose between layoff or placement in Antam's other mining locations. Generally, they chose the transfer. Simultaneously, at the time Antam was developing a nickel mine on Gebe Island, Central Halmahera, Maluku. Approximately 40 iron sand were transferred there. Since then, Cilacap mine activities practically halted.

Restoring the Glory

He made another lobby to NKK and returned to Cilacap with hope that the Japanese would be willing to resume order of iron sand concentrate, for several shipments.

One dayin1980, in the middle of his working visit to Pomalaa, President Director of Antam, Hadianto Martosubroto, talked to a Mine Coordinator there. "The Cilacap iron sand Cilacap is halted, but the cement factories need it. Can it be made profitable again? " he asked the TNP Sihombing as he asked him return to Java.



Sihombing returned to Cilacap and immediately visited the cement factories, Semen Nusantara, Semen Kujang, Semen Tiga Roda, Semen Padang, Semen Tonasa, and Semen Gresik. The cement industry needed iron sand as one of materials for coloring and cement hardener.

He asked them, if there was trouble to take the iron sand concentrate from Antam? They said no, but needed guarantee of supply continuity. Sihombing convinced them that UPPB Cilacap would be able to meet the requirement.

The Iron Sand Mining Unit was reactivated. "The money is already in my pocket," Mr. Hadianto joked to Sihombing, having learned the value of the cement plants' demand.

When he went to Japan, without the knowledge of Antam's President Director, Sihombing was again lobbying NKK. He returned to Cilacap with hope that the Japanese was willing to resume its order of iron sand concentrate for several shipments.

So, Sihombing led the iron sand mining unit as the Authorized Director. Apparently, after mining activities ceased during the past year, sand iron had been forgotten by people. One day Sihombing went to get a haircut. Seeing an unfamiliar face, the barber asked him.

"Where do you come from, Sir?"
"Pasir Besi."
"Is there still any iron sand?" the barber asked curiously.
"Yes, there is," Sihombing replied lightly.

Sihombing revived UPPB Cilacap that had stopped in 1978by operating one unit of MS.

As a unit leader, Sihombing's first step in Cilacap was to restore the prestige and mentality of new workers. The halt of exports to Japan had a big impact. Sihombing ordered all vehicles for officials to be renovated and painted a new, including repainting of houses and replacement of chairs after conditions improved. The goal was to refresh the officials' spirit.

The condition of the employees did not look good. They had debts to the stalls, so the salary was spent only to pay the debts. One day he asked his wife who was the chairwoman of the Dharma Wanita to find out the real cause by visiting the homes of employees. Apparently the cause was the prices of all basic material needs were expensive. Due to their debts the welfare of employees could not improve. The cost of hospital treatment was also high. This was also caused due to the lack of equality in salaries.

Seeing this, Sihombing established an employee cooperative to help meet the employees' needs of basic necessities. The goal was to make them leave the habit to have debt in the stalls and shops outside the company with a high price. In doing so, he ordered the staff appointed to manage the cooperative to search for goods outside the city with lower prices than in Cilacap. Regulations were also set out in basic necessities purchase by not exceeding the employees' income on the employee card. This was evidently quite helpful for the employees there.

The cement industry's demand continued to increase. To meet the demand, new mines were opened with one of them was in Pelabuhan Ratu, West Java. With the increasing market demand (cement plants), iron sand mining relived again. This caused an increase in the number of MS that should be provided. From initially only one unit of MS increased to eight units of MS.

In a further development, UPPB Cilacap opened new mining locations in Kutoarjo, Purworejo Regency in 1987. It also conducted a research on the potential of iron sand deposits in Wates, Yogyakarta. At that time a plan was emerged to build a steel factory in Yogyakarta. According to Sihombing, one goal of the establishment of UPPB Cilacap was as a stepping-stone for steel project in Yogyakarta.

The plan was based on the premise that the existing steel plant at the time, Krakatau Steel, imported all its raw materials. Why not build steel plant with local raw materials, so as to provide better economic value. Nevertheless, the plan was never realized.

"If at that time a steel plant in Jogja were actually realized, it would have a very good impact. This is because all sources of raw materials were there in Yogyakarta, there are also mining graduates from a prominent university. Of course, open employment opportunities, and would have impact on income improvement in Yogyakarta area," Sihombing recalled.

For Sihombing, living in Cilacap for five years from 1980 to 1985, has changed him. It has been many years he worked in the middle of Pomalaa forest away from the community. The soft-spoken people of Central Java have been able to change his way of speaking. Sihombing, who has Batak accent, may seem harsh from the way he speaks. One time, he returned home to North Sumatra, Sihombing was considered strange by his relatives in his hometown, because he spoke gently. Apparently he had become a "Javanese" in the speaking.

There was also a unique incident that he encountered. One morning when the miners went to work, they were shocked by a corpse with hands shackled, on the beach. Apparently he was an inmate who escaped and died from exhaustion, as he had to swim in the sea from the island of Nusakambangan. The island is clearly visible from Teluk Penyu, which is only seven miles away. Such incidents reportedly often occur, coloring the days of the miners there.

According to Sihombing, iron sand is lively and mobile. Once, around the mine site in Teluk Penyu was shocked by the incident of a missing child. The child still could not be found after searching for a few days. People who still believe in mystic then made a Jelangkung to ask the spirit of the child's whereabouts. The jelangkung was believed to be able to locate the child. Apparently, the seven-year-old child was buried in iron sand pile while playing in tailing site.

Sihombing was the successor of iron sand leadership for five years since 1980. The rhythm of mining equipment sound continued. But it was unlike the previous times during shipments to Japan. Not all iron sand concentrates were transported to the iron sand port of Teluk Penyu. Some of them were transported over land. Life of mine was hectic. Every day dozens of trucks carried iron sand. Not enough with its own vehicles, Antam also rented trucks from outside sources to support the availability of iron sand stock at the port. It seemed Cilacap iron sand mining began to prosper again.

Seeing with Love

He named one of his sons “Niki Suharto”. The name of Niki was taken from a Japanese iron sand loader ship “Nikyo Maru”

Love, seems to be a word that represents the meaning for people who came into contact with iron sand. There was nothing that motivated their morale and dedication but a deep sense of love. It rooted deep in them.

Take G. Partakusuma for example. The Japanese ships that anchored in Teluk Penyu, has significance for him. Not just as an inanimate business operations device that profitable for Antam and generated foreign exchange income for the country. Perhaps the ships were also a symbol of the struggle that he went through along with his colleagues during their time in Cilacap. He named one of his sons “Niki Suharto”. The name of Niki was after a Japanese iron sand loader ship “Nikyo Maru”. Meanwhile, Suharto was the name of president who inaugurated UPPB Cilacap in 1971.

Not only workers. The community of Cilacap generally viewed Antam with love. They welcomed the presence of Antam's projects there. No conflict or rejection, as often happens in other places after the New Order era, they are happy and supportive.

The love for Antam grew as the locations of former iron sand mine, the land that plants initially had not been able to grow, became fertile. Former mine sites transformed into agricultural land. A unique process of Cilacap coastal communities who originally were fishermen turned to become farmer. Although the lands that they cultivated was actually controlled by the Army, they considered it their own.

"When the watermelon season arrives, before the farmers sell them to the market, they invited us to eat as we please in their rice fields. Watermelon they planted in the former mine site grew well, "recalled Surianto, describing the communities around the mine.

Because the experience of farming on the land in the coast of Cilacap, when the mining area expanded to Kutoarjo, mine workers introduced farming methods to the local farmers. In further developments, farmers in Kutoarjo made ponds in the former sand mine that had been backfilled into farmland.

However, it was in contrast with the communities around Pelabuhan Ratu, West Java. They did not want the pools of the former iron sand mine sand reclaimed or backfilled. Though it has become Antam's duty to restore or even improve the function of land more efficiently. They tend to make the former mining areas as fish ponds.

A Determining Decision

After Antam no longer operates in Cilacap, the management was required to settle the dismissal that mutually beneficial.

The twilight of the iron sand glory has come. In 2003, after 33 years Antam operated mining in Cilacap, Central Java, the iron sand mining was shutdown. Although Cilacap Coast still has iron sand deposit, but the amount is no longer economical to be operated by a company of Antam's class. Thus, all activities related to mining operations were terminated, including operational supporting staff.

The reality was uncomfortable for anyone. Management held negotiations with Operational Supporting Staff (KPO) in connection with the termination of iron sand mining. Under the circumstances, like it or not the layoff measure was unavoidable.

There were 179 KPO personnel working as operational support staff in the mining and engineering departments to be laid off. Some of the iron sand mining workers were not permanent employees, but they were managed by employee cooperative. Their status was as the cooperative's employees, even though they felt as "Antam employee."

That was the hardest task for the management of UPPB Cilacap and the head office. The management's capability was truly being tested to settle the layoff program. The management was required to settle the layoffs efficiently, humane, does not violate any laws, as well as beneficial to both parties.

The 179 cooperative's workers were eventually laid off, after agreement was reached between both parties and witnessed by the Cilacap Regency Manpower Agency, with a total cost of Rp2.5 billion. The amount included severance pay, long service pay and other compensation.

In 2003, Antam officially ended the mining operations in Cilacap and entered the post-mining phase on October 23, 2003. Furthermore, the remaining workers at UPPB Cilacap were permanent employees totaling 118 people. They were divided into three categories, namely retirement, channeled through transfer of employees, and PDKT (Early Retirement with Specific Facilities).

In 2005, Teguh Prasetyo was assigned as the Authorized Director. Cilacap was a familiar place for a man who was born in Purwokerto that is only 53 km away from the city. Besides closing the mine and preparing the post-mining works, Teguh also handled the remaining human resources in Cilacap. Employees aged 46-54 years, were offered to retire early. But many workers who were still in the productive age brackets of below 46 years. Although the option to transfer to other mine sites had been offered, not all employees were willing to do it. At the same time, Teguh made an approach to unit heads in Antam, including the bauxite mine in Kijang (Riau Islands), gold mine in Pongkor (Bogor), and nickel mine in Pomalaa (Southeast Sulawesi), offering the remaining workers from Cilacap. More than 20 people from UPPB Cilacap eventually worked in these areas.

Since 2006, UPPB Cilacap led by a Post-Mining Manager. He handled jobs that include reclamation of former mining locations, greening, social activities for local communities, and the settlement of assets. All that was conducted based on "Cilacap Iron Sand Mine Closure and Post-Mining Plan" document, which had been prepared and endorsed by the Cilacap Regent on August 29, 2005. While the implementation of mine closure and post-mining by Center of Environmental Research (PPLH) Diponegoro University and had been reported in June2009.

Towards the Twilight

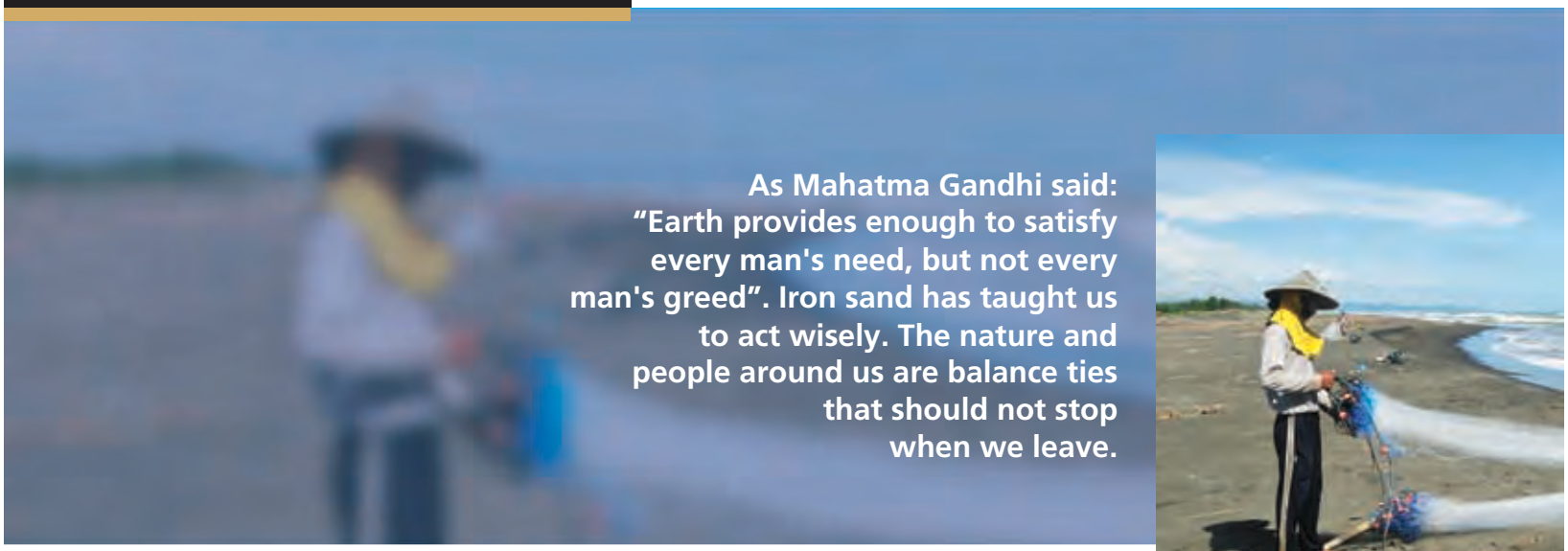
The presence of Antam has brought color and meaning to all miners and its environment.

Lintang by lintang had been mined. The miners had been working and moved from one point to another for 30 years. Although their on sand is still contained by Cilacap coast, but there serves are no longer meet the economical standards. The sound of the magnetic separator machines had vanished. The dark sparkling faces of miners had disappeared, leaving the story of glory and pride for their families.

Teluk Penyu iron sand port with abridge of ship loader built in 1970is now only silence. No more ships docked to load tons of iron sand. No more workers passing by there. Only the sound of waves accompanied one or two villagers who were fishing nearby. Iron-steel and structure that used be strong, started to porous and rust with age. Thick wood that composed the dock of the bridge also started rotting.

One evening, a security guard of their on sand port, satab sent mindedly watching the dock, it was unclear what he was thinking. One thing is certain that he felt that Antam's presence there has given color and meaning. At least for himself and the family he loved.

AFTER WE LEFT



As Mahatma Gandhi said: "Earth provides enough to satisfy every man's need, but not every man's greed". Iron sand has taught us to act wisely. The nature and people around us are balance ties that should not stop when we leave.

The Five-meter-high gate with a width of ten meters, painted with bright brownish yellow color. In parts of the edges there are black trim. Then in the middle of the wall was written in black capital letters "WELCOME" and at the bottom there are words "TO TOURIST VILLAGE KARANGBENDA". While at the very top there is long iron wire, bearing a logo and the words "PT Antam Tbk."

Right on the right side of the building, there are two meters high relief with bluish land scapes painting complemented with a fountain pool in the middle.

The building looks completely new. The building was in the finishing phase in early November 2010, before handed over to the Government of Cilacap. The gate and the relief is the assistance from PT ANTAM (Persero) Tbk as part of this company's support and care for the environment around the location of former iron sand mine of Cilacap. Karangbenda Village is one of the mining locations where UPPB Cilacap used to operate.

Karangbenda Village is located in Adipala District, Cilacap, 20 km from UPPB Cilacap office in South Cilacap District. From there, before reaching the village, there are Serayu River and Adiraja River. And just before entering the gate, is a bridge over 20 meters long. A matter of fact, the stream under the bridge is not a river. It is a channel of water into the sea along tens of kilometers that was developed by the Cilacap Irrigation Agency to overcome floods that often occur in the upstream. Through the channel the water flow continues to the sea.

The stretch of rice fields on former iron sand mining area of Cilacap now green and lush.

One view of the hills in the area of Mount Selok, Sodong Coast, located in the Village Karangbenda.

Karangbenda is one of 284 villages in Cilacap regency that has consider able tourism potential. The village that has a population of more than 4,000 people was inaugurated as the tourist village in Cilacap. Karangbenda conditions were increasingly green day by day. The village is decorated with various coastal plant son the beach sand. Remnants of iron sand mining is indeed like a girl with charms.

Karangbenda village with various coastal plants on the sand.

Antam in cooperation with relevant parties carries out reclamation and revegetation on the former mine excavation marks by planting crops in the path into the village. Villagers of Karangbenda indeed serve appreciation for their passion to restore the nature of their village after mining operations.

"Praise to God, Antam is still care about this place which used to mining area," said Umar Said, Head of Karang benda Village.

He admitted that he was greatly assisted by the Corporate Social Responsibility (CSR) implemented by Antam. Thanks tor Antam's role, the Karangbenda Village continues to grow into agreen village. Karangbenda Village tourism development center is in Selok Beachor local residents often call it as the Sodong Beach. The road to the tourist area that is now green with shade trees planted neatly. In addition the beach area has also become green by sea pine plants. The area has become cooler than previously dry and barren. The remains of mining in the form of sand dune sand the pond/pithave been transformed into green areas for brackish water fisheries and coastal forests.

On one road section to the Karangbenda tourist area, Antam held tree-planting activities. On either side of the road planted with glodokan sewu trees. The activities that were part of the implementation of the program "SOE Cares" through "Plant One Million Trees" on Jalan Kresna in 2007. Then also the "One Man One Tree" on Jalan Raya Srandil in 2009, and in 2010 implemented the "One Billion Indonesian Tree".

Karangbenda is a portrait of a transformed region. The land along the village and the beach that were once barren has turned green. Iron sand mining reclamation after mining operations at certain spots (lintang), naturally has changed the structure of the soil there. The soil that used to be sandy and difficult to cultivate, leaving the soil minerals needed by plants. The land of the coast turned into fertile agricultural land.


antam
PT.Antam Tbk - Pasca Tambang Cilacap
" BUMN PEDULI "
Tanaman Sejuta pohon Jl.Kresna Th.2007
One Man One Tree Jl.Raya Srandil Th.2009
Cilacap, Maret 2010

Farmers of Karangbenda harvesting the crops on former iron sand mine, Cilacap.

The locations of former mining areas are also planted with various trees such as acacia, pine sea, coconut, and other plants that grow naturally. At some former mining spots, some pit are deliberately left as fish ponds for people's venture, both the cultivation of fish and fishing locations as part of the beach tourism at the tip of Karangbenda Village.

The changing process of land does not occur in recent years after Antam ceased to operate and officially started the mine closure program in 2004. However, it would go through proceeds to follow 33-year long of iron sand mining there. During that time hundreds of hectares of new rice fields have been created with abundant river stream, sources of spring are popping up around the rice fields, to complete the fertility of the lands.

One afternoon, at the corner of Karangbenda Village fields, six women were resting in the rice field under the shade of a tree. They took a break for lunch with a side dish tempe mendoan. These women were conducting "matun", or pulling weeds or grass growing around the base of the rice plant. Meanwhile, in another corner, some young men fishing in the middle of rice fields. Among the rice crops that grow yellow, they found many snakehead fish.

"This place used to be
iron sand mine.
But after it no longer operates,
this rice field
can support
Our family's life."

"This place used to be iron sand mine. But after it no longer operates, this rice field can support our family's life," one of the women said.

The growth of new rice fields is one of the positive domino effect of Antam's presence there. So not only in terms of direct economic benefits given this company as a local energy absorption, and the needs ofthe entire mining operation that supplied by the suppliers of Cilacap. Hundreds of hectares of new paddy fields, it certainly could increase welfare for the people there. Residents who previously relied activity at sea, or change or supplement their farming activities.

Glodokan Sewu plants seen adorn both sides of a road in Adipala District, Cilacap Regency.

Restoring the Land Function

Reclamation is one form of responsibility provided by Antam to restore the land after mining activities.

After mining was discontinued in 2003, Antam has been carrying out reclamation of former mine pit as part of its environmental management. Environmental management is implemented through several stages, namely the recovery of the former mining land to rehabilitate ecology and preparation of land that has been upgraded for other utilization. Reclamation includes several activities, namely land preparation and structuring, revegetation or utilization of former mining land for other purposes.

The former mining land has been widely used as rice fields, seasonal crop fields, coconut plantations, and settlements. In 2009, the reclaimed land area was 422.8 hectares in Block D mine location (based on the Cilacap Regent Decree on Iron Sand Exploitation KP No. 545/1980.1/34/2007dated 20 November2007).

Reclamation of former mining area.

All former mining areas have been utilized according to the community's needs.

Former mining land has been utilized by surrounding communities for various activities, namely: Revegetation area of 81.41ha; rice farming area of 184.34ha; agricultural field area of 12.80ha; local residential area of 144.25ha.

A number of Antam's reclamation activities have been carried out for five years from 2005 to 2009. In 2005 the back filling of former mining pit was conducted and was adjusted to the preparation plans for farm land, revegetation and road to all disturbed areas in Glempang Pasir with an area reached 8.68ha. In that year the community began to cultivate the agricultural wet fields and secondary crops.

In 2006, the backfilling of former mining pit was conducted or structuring of 7.25 ha area in Glempang Pasir. The revegetation and treatment of 2,500 sea almond and sea hibiscus trees covered 8.88 ha area in the first quarter. But with the tsunami disaster on 17 July 2006, part of the area planted with sea hibiscus plants were damaged (died), so there were efforts of replanting as many as 700 sea almond trees in 2006 and 2007. Revegetation and treatment of 700 sea almond trees covered 1 ha area in the fourth quarter.

In 2007, revegetation and care for 200 sea almond and sea hibiscus trees and covering 0.30ha in the first quarter. While in 2008 as many as 3,410 trees were treated.

In 2009 a number of activities were conducted. (1) Extraction of 51 piles in the estuary of Bengawan River that were used to be iron sand pipeline support in the first quarter, these piles were further handed over to the Mina Asih Fishermen Group of Karangbenda Village, (2) Construction of culverts in the former mining area in Glempang Pasir Village, in the second quarter, (3) Routine plant treatment in Karangbenda and Glempang Pasir villages, (4) Replanting of 300 sea almond trees in the fourth quarter, at a location along the former quarry used as a tourist road.

Based on the results of recent monitoring undertaken by Antam on the implementation of revegetation on former iron sand mining land in Block D in the form of 3,410 coconut and sea almond trees; with 3,133 grew well and 277 trees died. The success rate was recorded at 92%. The dead plants had been replaced by replanting 300 trees.

For the Independence of Community

Community development programs are an integral part during post-mining. Community development under taken by Antam in the period of 2005-2009 was within the frame work of community empowerment through the Partnership Program (PK) and Community Stewardship (BL) and Community Development Program (Comdev).

The Partnership Program is distributed through several sectors. Among the sectors are trade, industry, husbandry, fisheries, and services in the form of capital assistance to the target groups of people with talent and skill, which is allocated to partners in Cilacap, Kutoarjo and Yogyakarta. Partnership Program in five years has involved as many as 48 people as foster partners in Cilacap, Kutoarjo, and Yogyakarta. Funds that have been disbursed as much as Rp 1.3 billion.

Antam partnership programs have empowered surrounding communities to improve their welfare.

While the community development through the Community Stewardship in several sectors, including natural disaster relief, educational and training assistance, improvement of public health, infrastructure and public facilities assistance, religious facilities assistance and natural conservation assistance. From 2005 to 2009, Antam has invested the total amount of Rp914,675,970 for such programs.

The implementation of Community Development or Comdev has more flexible sector. Including the celebration of Cilacap Regency anniversary, basic food assistance package, scholarship, mass circumcision, fast breaking function, religious facilities assistance, public Koran recitation, health counseling and plant seeds assistance. During five years the program has cost around Rp 506,983,886.

The mine closure and post-mining activities during 2005-2009 has cost Rp26.8 billion from its initial plan of Rp 22.2 billion. The figures were not including community development cost of Rp 2.13 billion.

The post-mining program, has given perspective for local communities. The results of "Environmental Aspect Audit of Cilacap Iron Sand Mine Closure and Post-Mining" reported by the Center of Environmental Studies, Research Institute of Diponegoro University in June 2009, cited that Antam's iron sand mine closure and post-mining activities has brought positive impact on the community.

All of Antam's efforts for iron sand post-mining in Cilacap, seemed to be well responded by local communities. Antam would not only exploit nature. It also seeks to restore its harmonious ties with people around it. We would not want the ties to be broken when we left.

Comdev activities are in the form of relief for landslide disaster victims in Banjarnegara, and basic food necessities to residents of Cilacap.

Thank you, Antam...

Antam has left a lasting impression for the surrounding community. Here are some comments and suggested from a number of citizens.

Tanoyo, 70 years old, is a Navy retiree who received capital assistance from Antam for a grocery stall at the THR Teluk Penyu area. "With the capital assistance from Antam, I open this stall. With the capital I can add more goods to be sold and renovate this stall."

Moh. Jajang Rahmat, 40 years old, one of Antam's foster partners and an owner of a food stall. He is usually called "Mang Ujang". Ujang's food stall has been widely known by its regulars with "MU" stall. He said,"With capital assistance from Antam, my food stall business is growing. We were able to rehabilitate the building and set up a more comfortable dining space. I am no longer embarrassed of feeling inferior because of the stall's woven bamboo walls. I also plan to open another food stall in other place."

Naslam, 55 years old, is a resident of South Cilacap Village, Cilacap. "I see Antam despite its operations already terminated here, still cares about local residents. Many programs have been carried out such as mass circumcision, free medical treatment, and assistance for public and religious facilities. The good thing is, they always ask us what program that should be provided by local communities before they extend the assistance. I hope the activities will be increased more."

Umar Said, 42 years old, Karangbenda Village Head. "Praise to God, Antam still cares about this area that used to be a mining site. We are very grateful to Antam. We hope Antam's assistance will not stop here and will continue to increase.

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“Tracing Back the Memory in Teluk Penyu:
A Memory of Cilacap Iron Sand Mining of PT ANTAM (Persero) Tbk” presents a story of how Antam operated the first iron sand mining in Indonesia during 1970-2003. During its operations in Cilacap, the company did not only contribute to state revenues. The company has also become a part of economic and local development in Cilacap.

Antam has brought color as well for socio-economic life of local communities. Over the past three decades of Cilacap iron sand had left many stories of the miners' struggle. They spentmany nights and days under the sun and in the rain. Mining was the hope for many people involved there. And to this day their tanned faces still reflect the heyday and pride, at least for the families they love. Iron sand today still continues to be extracted by other miners.

While hundreds of hectares of rice fields that were created from the former iron sand mines, have preserved the cycle of survival and provide a new form of livelihood after Antam's exit. A close tie between nature and people around it should not stop even after Antam left Cilacap.

TRACING BACK THE MEMORY IN TELUK PENYU

A Memory of Cilacap Iron Sand Mining of
PT ANTAM (Persero) Tbk

The presence of Antam in Cilacap has a positive contribution to the community, especially in the aspect of Corporate Social Resposibility (CSR). Antam's success in mine closure has also encouraged several local governments to carry out comparative studies in Cilacap. It is also hoped to become an example in environmental management for other iron sand mining companies that are currently operating in Cilacap.

Ir. Sunarno, MM
Energy and Mineral Resources Agency, Cilacap Regency

The iron sand mine closure and post-mining activities of PT ANTAM (Persero) Tbk in Cilacap in the environmental management aspect had been conducted in accordance with the procedures. The audit results show that the mine closure and post-mining programs have brought positive impact that can be felt by surrounding communities,

Environmental Research Center, Research Institute of Diponegoro University

Praise to God, Antam still cares about this area that used to be a mining site. We are very grateful to Antam.

Umar Said
Karangbenda Village Head, Adipala District, Cilacap Regency

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