

INDONESIA Invites

Trade • Tourism • Investment

SECOND EDITION

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From Indonesia with Amazing Bamboo

Profile

Jatnika Nanggamiharja
The man behind the bamboo

Leisure

Dusun Bambu & Ora Beach
Beauty, Nature, and Harmony

100% Indonesia

Bamboo Investment in Indonesia
An Unpolished Gem

Directorate General of America and Europe, Ministry of Foreign Affairs of the Republic of Indonesia



Special Remarks From the Director General of America and Europe, MOFA

I would like to congratulate *Indonesia Invites* magazine that has successfully presented us with a timeless piece of information on Indonesia's potentials on trade, tourism, and investment. In line with the new government's vision, the idea of publishing this magazine is one of the Ministry's efforts to bring economic diplomacy to the people and the people to the global market. The objective of the magazine is to promote the potential of small and medium enterprises which have always been the backbone of Indonesia's economic development.

This time, *Indonesia Invites* focuses on the remarkable potentials of Indonesian bamboo. Bamboo has always put colors to Indonesian lives. We use "bambu runcing" to fight for our independence. We live under bamboo roofs. We cook with bamboo utensils. We brighten our lives with tunes from bamboo musical instruments. We earn our living utilizing bamboo.

This edition is a creative way to introduce our bamboo to the world. We invite readers to invest in bamboo production, we lure tourists to savor the beauty of bamboo and we entice traders to buy many varieties of our bamboo products.

May I also remind you that bamboo is environmentally friendly. Thus, it inspire us to reduce the use of paper by launching the apps for e-Magazine edition of *Indonesia Invites* which bring us one more step to the future.

Amb. Dian Triansyah Djani

Editor's Note

Dear Readers,

After your warm welcome toward our first edition of *Indonesia Invites*, we are very happy to meet you again in this new edition which features Bamboo, a versatile yet affordable material, that grows in tropical areas, like Indonesia.

Some of you are probably familiar with the fact that bamboo leaves are the staple food for those cute Panda bears in China, but did you know that Indonesia is the homeland of more than 160 species of Bamboo that provides the world with thousands of end products which cater to the vast range of our needs? From smart-building material, furnitures, alternative source of energy, to source of food nutrition. Beyond that, Bamboo cultivation also provides us with natural water reservoir and landslide barrier.

As part of our local wisdom, for generations people of Indonesia have been incorporating Bamboo as a highly utilized staple material in their daily lives. With more than 1.5 million of people's livelihood depend on Bamboo, we believe in Bamboo as the answer to Green Economy and Sustainable Development. Just last year, Bamboo has officially been listed in the APEC List of Environmental Goods that contribute to Green Growth and Sustainable Development objectives. On that account, as the home of five percent of world's Bamboo crops, the time is right for Indonesia to develop its Bamboo production, and for you to join in developing Bamboo-based industries.

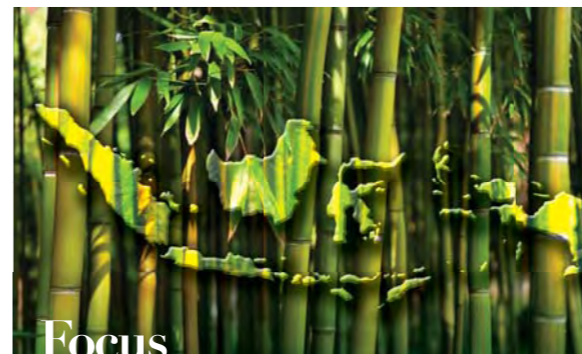
In this Edition, we present you with many of the comparative advantages of Bamboo, knowledges learned from world bamboo's experts, report from a visit to Bamboo-based resort, sharing a story about bamboo musical instruments, even choosing one Indonesian culinary icon recipe using bamboo shoots as its main ingredients. We also enlist Indonesia's leading Bamboo industries, and Indonesia's Trade and Investment Events for your ease reference.

We hope this Edition could serve you well in intriguing your interest and guiding you to know about Bamboo in Indonesia better, and who knows that you could make your self a fortune from Bamboo?



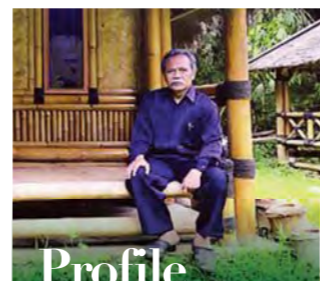
Tika Wihanasari

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The Giant Grass is Back

A number of Indonesian and world architects are considering back bamboo as substitute for wood as building material. Part of the grass family *Poaceae*, Bamboo is dubbed as Giant Grass. It is also environmentally-friendly and easy to cultivate. Who are those prominent bamboo-based architects?

The sand along the Duduk Beach, Sengingi, Lombok, has started to feel cold. The dusk creates a reddish yellow tinge in its wake. Along the beach, 50 bamboo installations were installed by 50 groups from various countries at the Lombok International Bamboo Festival, in the middle of last December. They were showcasing a shelter that was made of bamboos as well as building installation that displayed bamboo connection technique used for high skyscrapers. Ingemar, a visual artist from Russia, presented installation of bamboo indentation shaped like the rolling waves. As for Christoph Tonges, he demonstrated bamboo connection technique using a tool such as a plastic bottle cap.

The works were selected by a team of Indonesian curators (architects Budi Pradono, the stage designer Jay Subiakto, curator of fine arts Asmudjo Jono Irianto) and Christoph Tonges of CONBAM-Advanced Bamboo Application, Germany. They too will decorate the shore for three months. There are also several products from reputable invitees' architects, such as Takeru Shoji (Japan), Pitupong Chaowakul

(Thailand), Vo Trong Nghia (Vietnam), Dirk E. Habel (Singapore) and Eko Prawoto (Indonesia). "It can be said that this is the first bamboo festival in the world and Indonesia is the pioneer," Said Budi Pradono, Chief Executive of Bamboo Festival.

The festival seemed to be the culmination of a movement by a number of architects in recent years in promoting Bamboo. Bamboo is now regarded by the architect as "green gold" because of its benefits. This has attracted the attention of *Tempo*, the leading magazines that organized the festival to choose an architectural figure each year. Seeing the intensity of the bamboo movement, they chose bamboo as the focus theme in determining the candidates. To learn more, they have invited Pon S. Puradjatnika, architect and chief of Bamboo Lover Community, as well as interviewing architect Avianti Armand.

In the discussion prior to the event in Mid-December, it was revealed that architects are now turning to bamboo because the nature is no longer sufficient in providing the human needs to

construct buildings in terms of wood, iron and concrete. Iron and concrete price is also predicted to increase for the next few years, it can no longer affordable for the people from low to middle economic incomes. In Papua, cement is currently being sold with the price of more than Rp. 1 million per sack.

Bamboo is becoming one of the top alternative items because Indonesia's nature provides several variants of bamboo trees. Bamboo variants that are best to be used as building materials include the following types: betung, haur, tutul, gombong and black wulung.



Bamboo construction by Ingemar from Russia.

The white wulung is used for angklung and other musical instruments. Other usage for bamboo is that it can be processed into food, furniture, textile, medicine, and crafted products such as bags and toys.

Bamboo plant is environmentally friendly, easy to cultivate, can be harvested after 3-5 years, evades erosion, improves soil water content, and it is renewable. This plant has the highest growth rate in the world, which can even grow up to 100 centimeters in 24 hours. On average, its growth is between 10 and 30 centimeters per day. For the construction purposes, bamboo is preferable because it is stronger and more flexible than wood, iron or concrete.

In several countries, bamboo has been used as a main material for large construction, such as the roof of Spain's airport; Garzon Jenny Bridge in Bogota, Colombia; and the Great Bamboo Wall, residential homes by Kengo Kuma in Beijing, China. In Indonesia, the trend of constructing bamboo building is emerging, such as the Bali Green School and Racik Village Restaurant in Garut, West Java.

While agreeing to choose bamboo as the main theme of the event, *Tempo* editors in fact encountered a problem to find a prominent bamboo architecture figure. Even though the bamboo movement has spawned a variety of works but it still has not produced prominent bamboo architects. The architects who work on bamboo constructions, have their own expertise and developed their own interest based on their individual capacities. For example, there is a figure who are meritorious in disseminating and developing theories about the special character of bamboo or who are specialized in maintaining the traditional technique of bamboo architecture.

The Juror from *Tempo* finally agreed upon selecting two monumental bamboo buildings as architecture works in 2013. First, Rangon Seni Rancamaya, an amphitheatre covering an area of

one thousand square meters at Kampung Rancamaya, South of Bogor, West Java, by Baskoro Tejo and Pon S. Pradjatnika. Baskoro is an architect, who was born in Semarang in 1956 and graduated from Bandung Institute of Technology; Poly University New York, United States of America; and Osaka University, Japan. Together with Sunaryo, visual artist, he designed Selasar Sunaryo Art Space, Bandung art building in Bandung. Pon S. Puradjatnika is an architect who graduated from Bandung Parahyangan University and former Chairman of Indonesian Architects Community West Java Branch. Second, Great Hall Outward Bound Indonesia, near Jatiluhur Dam, Purwakarta, West Java, by Andry Widjowijatnoko. Andry is an architect and lecturer in Bandung Technology Institute that has studied bamboo for two months in Colombia.

Large buildings require special handling on the bamboo materials and also special techniques at the seams. That what makes the building extremely important, as it will test the strength of bamboo as a construction material.

"Back to the bamboo" is a movement that involves many people. Therefore, it is important to mention a number of other figures. One of them is Budi Pradono. As a main promotor of a successful Bamboo Festival, he is a lecturer at several universities in the world, such as Eidgenössische Technische Hochschule Zurich. He was invited several times to make bamboo installations in major exhibitions both in Indonesia and the world. His most famous works are Flora Building and Pure Shi Shi Lin Exhibition Space in Taiwan. His other work is Pori-Pori House in Jakarta.

Undagi Jatnika Nagamiharja is another bamboo figure that particularly preserves traditional techniques. He understood well about bamboo technology and that many buildings use traditional joint techniques although the building is modern. His private residence and museum at Bumi Cibinong Endah, Cibinong, Bogor Regency, West Java, is constructed entirely with bamboo. Jatnika has built over 3,000 homes of various types of bamboo in Indonesia and abroad.

Budi Faisal, another bamboo expert figure, is an architect who graduated from Bandung Institute of Technology and now he teaches at his alma mater. He also studied architecture in University of Colorado, USA and urban planning in University of Melbourne, Australia. He is interested in the bamboo and started to provide training and lectures about bamboo in Germany and Malaysia. He also built the Eco Bamboo House, a residence located at Eco Pesantren Daarut Tauhid, Pangsor Village, Cigugur Girang Village, Parongpang District, West Bandung Regency. The modern house was built with bamboo as the main elements.



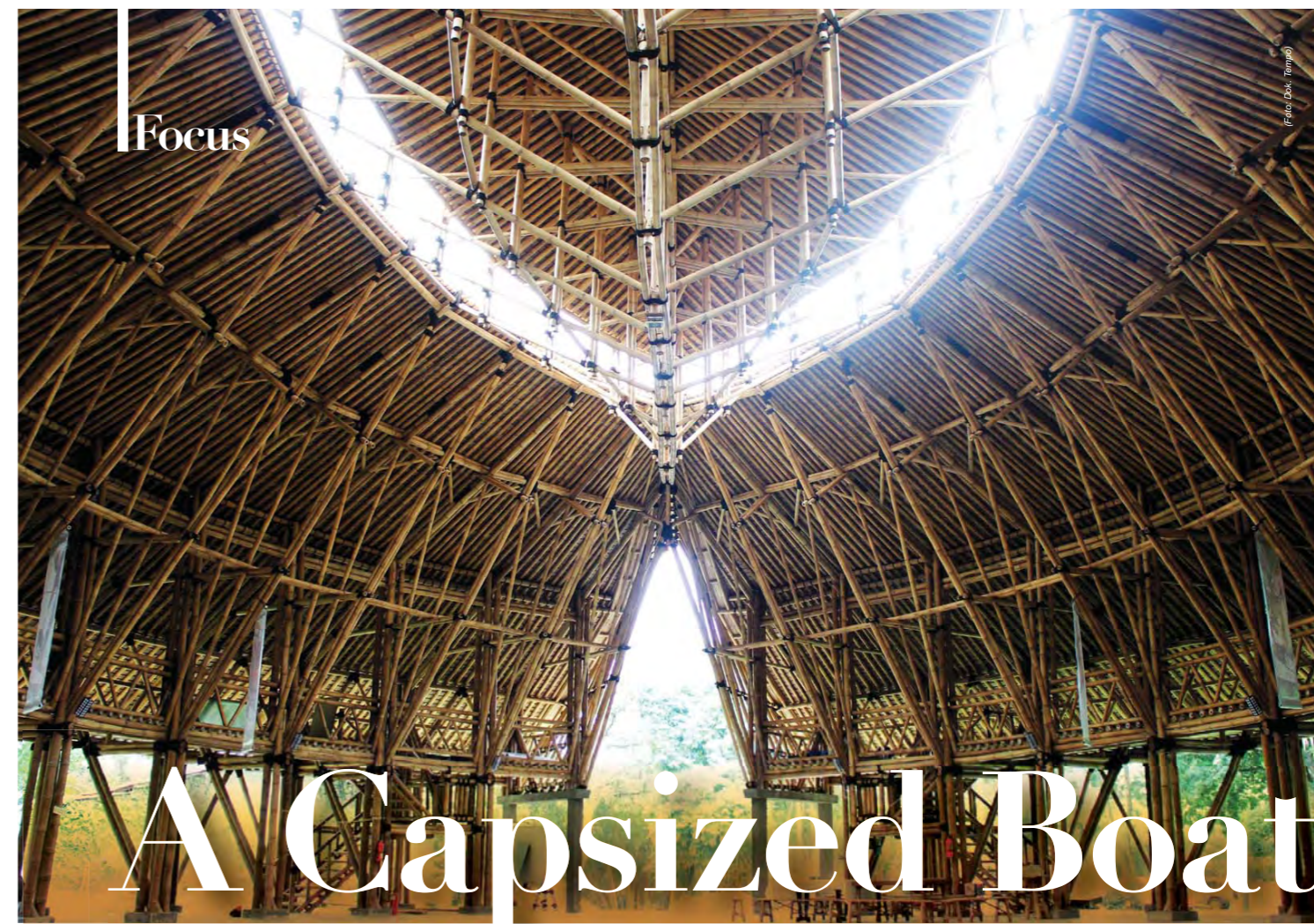
Bamboo construction by Ingemar from Russia.

These choices may still be far from perfect, but the idea of "back to the bamboo" needs to be further developed in the future. What they do is still far from perfect. There is still some homework, especially technology research, which must involve governments and other parties to develop bamboo so that it is ready to be used as a substitute for wood and concrete building on a mass scale.

*) Translated by Angela Duta Patria, from Tempo Magazine's Article : *Kembali ke Emas Hijau*, by Kurniawan, Cheta Nilawaty, Sorta Tobing. Published on 12 January 2014.



Bamboo construction by Ingemar from Russia.



Focus

A Capsized Boat in Jatiluhur

by ANDRY WIDYOWIJATNOKO

A show case of modern joint techniques and bamboo preservation. The construction could hold the roof up to 31 meters wide without poles.

An old house in the district of Jatiroto, Lumajang, East Java, opens the mind of Andry Widyowijatnoko's about the building. There is nothing special about that house. The skeletal structures are made of wood. What makes it interesting was the wall of the house that appeared to be made up of bricks. However, when he peers into some of the damaged parts of the wall, it turns out that the walls are made of woven bamboo and sand plaster. According to local residents, that house had been there since the 20th century and was built by the Dutch.

"Since then I realized that bamboo could be used as construction materials with high durability", said Andry, architect and lecturer at Bandung Institute of Technology. This revelation occurred in 1999, when he was doing his master's thesis at ITB. He then chose bamboo as major topic to complete his research.

The research results were then applied in earthquake-resistant houses in Sukabumi, West Java. Construction of the house was using a light and a flexible plaster bamboo so it could follow the force of the earthquake.



The price is cheap compared to bricks and cement construction. The design was then developed into a prototype bamboo house in Sand Impun, London; Nagalan, North Sumatra; and Bali.



Andry Widyowijatnoko.

In 2006, Andry studied more about bamboo in Colombia for two months. There he met other architects from various countries who were also studying bamboo. He learned that Latin American countries have the similarity with Indonesia on bamboo potentials. The difference were, the people of Colombia seems to be more appreciative and have used it more for building materials.

Bamboo in Colombia has higher sales value compared to in Indonesia. "Buildings made of bamboo are large, magnificent and considered very prestigious" said the man that was born on August 6, 1972. People in Indonesia, on the contrary, tends to view bamboo as second grade material, cheap and use it only for semi-permanent buildings. To prove otherwise, Andry determined to make large bamboo construction project in Indonesia. His intention was then realized in 2008, when he took the project to build the Great Hall Outward Bound Indonesia.

Location of Great Hall Outward Bound Indonesia is near Jatiluhur Dam, Purwakarta, West Java. Traveling by car from Bandung takes about an hour when there is no traffic. From the gate of the dam, it takes another four kilometers to get to the location. The surrounding ambience is cool, calm, and quiet with various types of trees that grow abundantly. The Great Hall is standing behind those trees, and borders directly with the Jatiluhur dam.

The shape of the building looks like a boat, but in an inverted position. From inside of the hall, you can see the ceiling shapes that looks like the hull of a ship. The ceiling seems to float, and provides lighting and natural ventilation. There are no columns in the middle of this great hall. All the construction materials use a widespan construction with a minimum length of 20 meters and a maximum of 31 meters.

The height of the building reached 17 meters.

The hall is located in training ground complex which owned by Outward Bound Indonesia, covering an area of four hectares. The building has over 1000 square meters floor area. While it can accommodate up to 700 people, it is designed to operate without air conditioner. It has no window since the fresh air from outside can already circulate freely inside the building.

The building has a triangular-shaped entrance which is connected to the roof. A series of bamboo stand tall from floor to roof like a half-open fan. The hall location can be reached directly from the gate. The complexity of the construction details is more visible when you see it from inside the hall.

Andry says that the building structure consists of two layers of construction with the addition of two levels of roof, of which the second one seems to float in the air. From the floor, bamboo poles function as columns where it was lined up into two rows. Above it there is another floor for the mezzanine area. As we look upward, the column has a curved shape such as ship hull, then at the very top it changes into the roof frame.

Andry uses **clamp and pull** techniques in making these forms. He combines traditional and modern joint connection techniques. Nut and bolt became the key element, which are then covered with straws that are tied together. The clamp and pull structure of the roof becomes a powerful block to hold the bamboo poles beneath it. There are also diagonal poles to connect the columns and roof structure.

"Tectonic is obvious," said Andry. Tectonic is a term to describe the architecture of the building in accordance with the character of the material. About the shape that looks like an overturned boat, he says that he purposely uses that shape. "Because its location is near water. I purposely make a shape that is close to nature," said the lecturer in Building Technology Science, ITB. The hall looks like a boat which has been stranded on the edge of the lake.

This design requires 8000 bamboos, which consist of various types like gombang, petung, and rope. The bamboo material were supplied from Sumedang, Purwakarta, and Yogyakarta. The big chunk of the cost is not from the bamboo, but from the labor. The price of each bamboo rod - 9 meters long and up to 10 centimeters in diameter is only 3 US dollars. "What cost more is the construction time and labor," he said.



Bamboo construction.

For preservation, he soaks the bamboo in borax solution. Based on traditional wisdom, cutting bamboo should be done in certain season, and to preserve the bamboo, it should be soaked in the river. Finally the Hall was established and had won an Construction Work of Indonesia 2011 Award in the architecture category from the Ministry of Public Works.

While busy working for the construction process of the Hall, Andry still make time to pursue his doctoral studies in 2009 at the Faculty of Architecture Rheinisch-Westfaelische Technische Hochschule Aachen, Germany. His dissertation was inline with his interest, that is the connection techniques of bamboo. During his stay in Germany, he was assigned as assistant lecturer and held seminar about bamboo. "I love being able to apply my knowledge on bamboo and at the same time inspire others," he said

His research was later expanded until Andry made an important findings on bamboo. He classifies it into bamboo construction, joint connection, and the strength of its pull force. He also discovered the bamboo joint connection design which has very high pull strength. Rarely do people take advantage of the pull strength of bamboo because usually bamboo has joint connection.

According to him, there are three important things that must be considered in designing a building with bamboo material. First, the shape of the roof should be wide enough to give ample space to protect the column. This technique is important for maintaining bamboo poles durability. A wide roof can protect bamboo poles from rain and direct sunlight. Second, the space between the floor and bamboo poles should be kept dry and not damp. The last, plenty of ventilation is necessary so that the fresh air could move in and out from the building and make bamboo durable.

Andry is optimistic that bamboo can become building materials in the future. The Bamboo tree growth is rapid and it can be harvested after 3 years. "In the future, with proper laminating techniques, I believe bamboo can replace wood", said Andry. "And the price is more affordable, too". However, much support is needed on the supply side, meaning Indonesia needs more bamboo plantation that managed properly. "It needs the support from government and industry," he conclude.

*) Translated by Angela Duta Patria, from Tempo Magazine's Article : *Kembali ke Emas Hijau*, by Kumiawan, Cheta Nilawaty, Sorta Tobing. Published on 12 January 2014.

Amphitheater of a thousand



This Rangon Seni Rancamaya is an earthquake-resistant building and it's elastic. Its' inverted cone is capable of supporting the eight-ton roof.

Stretch of the eaves (overstek) bamboo surrounds the main roof and a bamboo skeleton is covered by *bitumen*, the wavy roof tiles made from a mixture of several minerals. Looking down, the eaves were shaped like an embracing bird's wing. Both roof and eaves weighs eight tons, but stands straight with just bamboo poles support.

Here we are, in Rangon Seni Rancamaya, an amphitheater with an area of one thousand square meters located at RT 3 RW 7, Kampung Rancamaya, South Bogor, West Java. The architect, Baskoro Tejo, prefers to interpret it as a bamboo umbrella metaphor, cap, or even a banana leaf, which is commonly used to protect people from rains. "In essence, the philosophy of the shape and construction of this amphitheater utilizes the maximum potential of bamboo, that is the flexible curved bamboo character," Baskoro said.



In addition to its aesthetic or decorative purposes, the potential of natural elasticity of bamboo is applied in this construction by Baskoro and his partner, bamboo specialist architect, Pon S.

Puradjatnika. Bamboo is used as the main construction material of building, from the pole, roof, the frame and skeleton of the building.

There are a dozen sets of bamboos to support the roof and eaves. Each set consists of six bamboo rod with a diameter of 15-20 centimeter. The bamboo that is used as a platform is bamboo betung that can be found around Rancamaya. The skeleton of the roof uses gombong or andong bamboo, tali bamboo, and green bamboo.

Because the building serves as a center of art and culture, the center part of the Rangon Seni Rancamaya is made into a concave shaped like a bowl. As for the middle section, it has been made into a gentle slope and flat. This serves as the main stage for performances. Five permanent concrete stair steps around the amphitheater serve as spectator seats.

The building's owner, Al Hilal Hamdi, a former Minister of Manpower and Transmigration, initially intend to make the building as a Centre for art activities, similar to Saung Mang Udjo in Bandung, West Java. He also wanted to use a different construction material, and bamboo was chosen since it is environmentally friendly, and considered to represent Indonesia's uniqueness.

"Other architects and I discusses how to develop art facilities in Bogor, using local materials," he said when contacted a few weeks ago. "Moreover, bamboo is unique, widely available in Indonesia, easily grown and processed."

"Termites favored sugar content in bamboo. With the right timing of logging, no termites want to feed on the bamboo, so the bamboo will not rapidly deteriorate," says Pon. Moreover, the logging of the bamboo could not be done on the full moon. "Because, the bamboo at a full moon is at its fertile period; it so it contains a lot of glucose."

Bamboo preservation can be done by soaking it in the river and sea water or by injecting the borax liquid into bamboo, and then drying it in a standing position. The drying process of bamboo

After undergoing drying process and elasticity test, the bamboo is mounted on a concrete base as high as 1 meter, with a surface of 50 x 50 centimeters. Beforehand, this bamboo which is used as the basic construction was inserted with 1 meter long reinforcing steel bar and filled with concrete mix and to be set in the concrete base.

Carrying out this method of construction required many innovations on bamboo joint techniques. The 6-12 meters bamboo is used for base, in some part, fastened with anti-corrosion



can be shortened by using oven. After being preserved, bamboos are sorted out based on the dimensions and the elasticity of bamboo to bend/flexibility.

Grouping or sorting is done so that the bamboo has the same character it is being used as construction materials. "Bending test is a test that is performed to obtain the desired bending-power of bamboo," says Pon. Unfortunately, according to Pon, no bamboo bending tests are quite accurate in Indonesia. Even so, builders who have long experience in using bamboo normally have the ability to estimate the elasticity of bamboo.

According to Pon, bamboo material passes several processes for preservation which are quite complicated and unique. Preservation aims to keep the bamboo strong and prevent it to be eaten by termites. First, the timing of the logging should be performed at 11-12 am, to avoid high level of sugar content in the bamboo segments.



steel plate clamps as wide as 3 centimeters. Diameter of the clamps is adjusted with the size of the bamboo. The use of clamps is to prevent the bamboo from breaking.



Once installed in the concrete base, bamboo is then re-tested with a loading-power test directly carried out on the spot. The test is done by hanging a sack-sandbags on a several points (fulcrum). Weight of sandbags is adjusted to the calculated burden of a structure (in average 25 kg).

"If bamboo that is being hanged with sandbags has deflection (downward indentation tip bamboo) within the limit, that means the construction is okay," says Pon. The loading-power test is necessary to install the roof frame and eaves to form bamboo arches.

The next step is the mounting of the roof and eaves frame. In this stage, a stainless steel back plate fastener is used, especially on the double roof construction that requires a long bamboo with the length over 12 meters. The length of bamboo in the district Rancamaya on average is 12-14 meters.

Installation of steel plate applied the same procedure as connecting the bamboo frame of the roof bone and eaves of the amphitheater. Since the bamboo being used is smaller than bamboo betung, connecting methods are as not as complicated compared to the process in applying

the bamboo as a construction base. "The only difficult thing is looking materials for the roof (talabah), because the necessary type of that bamboo should be able to be cut down and there is few of those small bamboo," says Pon.

After the roof and eaves frames are built, then it is ready to install the covering for the roof using bitumen and the eaves covering with bamboo which are strung together like a tassel. In this process the strength of bamboo as the main construction of Rangon Seni Rancamaya is tested. The construction of the inverted cone, since it was built in 2008, until now, it is still standing supporting the roof and large eaves.

As the center of Sundanese culture, Rangon Seni Rancamaya, which stands on an area of 8000 square meters, looks simple but magnificent. This building can accommodate approximately 500 spectators. It also provides public facilities, such as the prayer room and toilet.

Near to the amphitheater there are also two buildings for the art galleries which made of bamboo construction. Unfortunately, when *Tempo* visited, one of the building's roof art galleries had

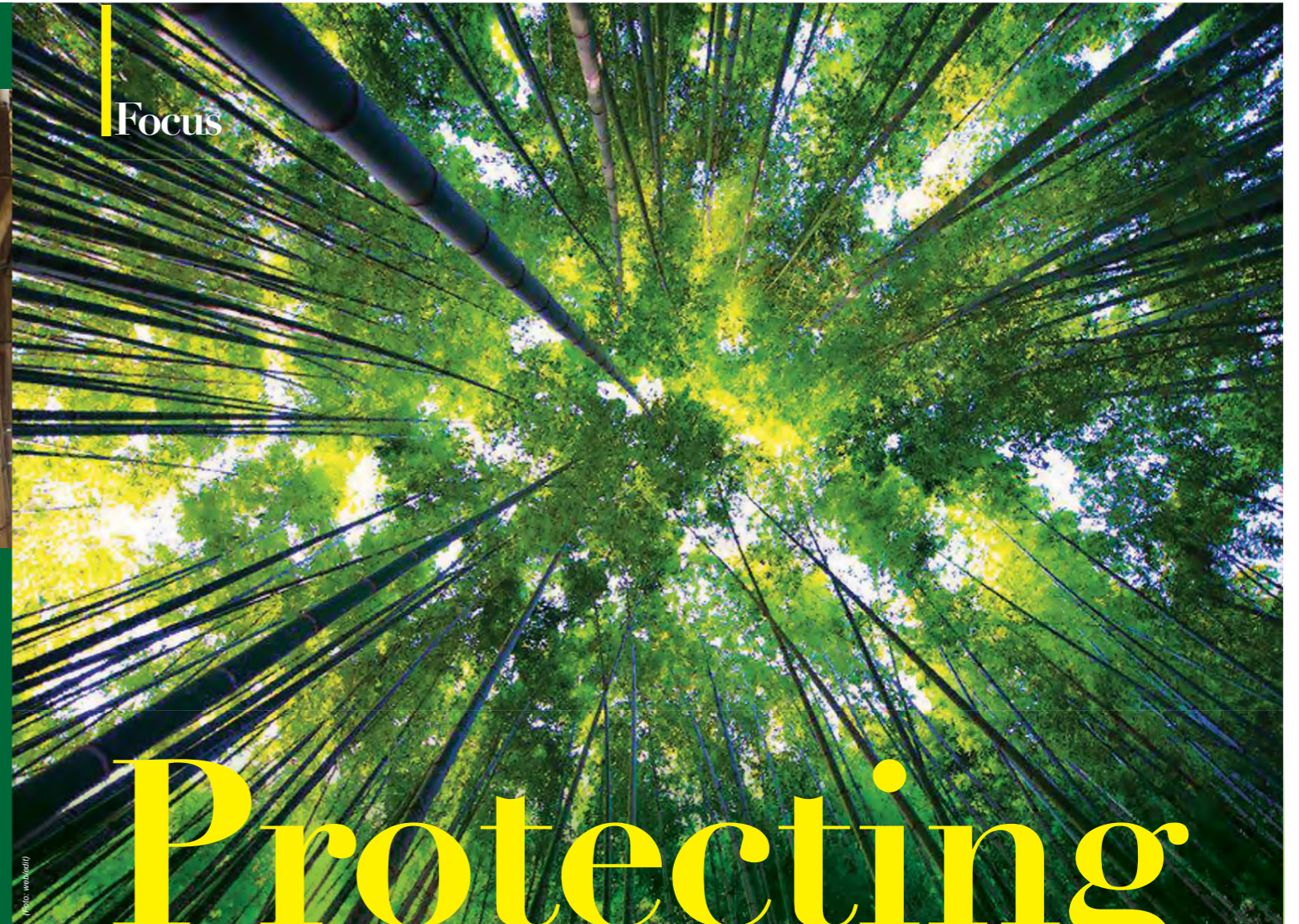
been destroyed by a tree that fell. "Yes, the roof was crushed by a tree that fell due to the wind storm. But essentially the construction of the bamboo remains sturdy," said Al Hilal.

Built over a year, because the team architectural designer changes, Rangon Seni Rancamaya amphitheater uses a thousand bamboo rods. Six hundred rods are used as the basic construction and the rest as scaffolding (Steiger) or a frame that can be moved, which is often used for construction purposes and are usually used to reach high places.

Responding to the questions on how much the overall cost of the construction, Al Hilal diplomatically inform the current price of the bamboo instead. "Bamboo for steiger is Rp 20 thousand per rod, while the basic construction of bamboo betung is Rp 50 thousand per rod," he said. Well, at least we can do the math.

*) Translated by Angela Duta Patria, from Tempo Magazine's Article : *Kembali ke Emas Hijau*, by Kurniawan, Cheta Nilawaty, Sorta Tobing. Published on 12 January 2014.

Focus



Protecting The Mount Semeru Belt

The citizens of Sumbermujur, Malang, expand the bamboo forest on the slopes of Mount Semeru. It binds soil to prevent avalanche, and also preserves water.

Sweat is pouring from Untung's body. The 64-year old man is working tirelessly swinging a hoe continuously to make his land fertile. The father of three children and grandfather for two grandchildren, cultivates alone the land that spread approximately to 800 square metres. The villager of Sumbermujur, Candipuro District, Lumajang, East Java, is planning to plant red chilli in the land that he bought ten years ago. Even in the dry season, Untung never worries that his crops will suffer from drought.



"The water supply is good here. Hopefully chilli prices are also going to be good during harvest time," said Untung.

To plant the whole land, Untung has prepared approximately one thousand chilli seedlings. Those three-leaves young plants were stored in his house. Once the land is ready, he will just need to open the small irrigation canal to water his land. "Here, the water is coming from Sumberdeling springwater in the bamboo forest", said Untung.

According to an environment activist from Sumbermujur, Herry Gunawan, the bamboo forest area that is located on the east slope of Mount Semeru has an area of 14 acres. It is estimated that there are approximately 1400 bamboos growing. Each can contain 400-500 clumps of bamboo rods. The diameter of bamboo clump can reach about 2.5 meters. The Bamboo plants are often referred to as the giant reed that is known as a good plant to absorb rain water. If planted in rows on the slopes it would make a belt formation. That is why some people call the bamboo plant the mountain belts. Its roots are interrelated and very strong that they can bind the soil. If there were thousands of bamboo thickets at the same locations, such as in Sumbermujur, the citizens are fortunate as these bamboos will prevent landslide and provide flows of spring water.

"The local people living around Mount Semeru are benefitting tremendously from the bamboo forest," said Herry. Sumberdeling spring water is the main sources for paddy field irrigation, and the river is used for bathing and washing by local communities. "The estimated size of Bamboo forest area is 14 hectares and belongs to Sumbermujur villagers," said the winner of the 2nd Award for Best Nature Conservation from the Ministry of Forestry in 2013.

The bamboo forest has been in existence since the Dutch colonial era in the 19th Century. At the time the bamboo forest only covered an area of 9 acres. Then in 2000, the land was expanded to 14 hectares, thanks to support from the Government of East Java Province and Lumajang District Government that procured additional lands.

On the additional land, the villagers planted a mixed variety of bamboo, mostly Jajang (*Gigantochloa hass-*

karliana) and Apus bamboo (*Gigantochloa apus*). These two varieties added to 20 varieties of bamboo grown in the original bamboo forest, some of them are Petung bamboo (*Dendrocalamus sasper*), both black petung and green petung. Both of Petung varieties are relatively small in numbers, and planted to patch some empty areas in the forest. The diameter of petung could grow at least 20 centimeters, and could reach 25 metres in height. Hence, once the bamboo grows well, the potentials of bamboo forest to prevent landslide and groundwater reservoir are greater. "Currently, there are two types of betung thickets. The seedlings of those variety were provided by The Regional Office of the Ministry of Forestry in Lumajang," said Herry. The condition of bamboo forest in the Semeru slope, which is now lush, was a prove of the joined-hardwork by local activists, villagers and local government. In the 1970s, the bamboo forest was damaged. Due to the ignorance of the villagers at that time, who extensively cut and logged the bamboo for their needs to build home, and additional income.



The did not know the advantage of bamboo conservation forest. At that moment, in one clump there was only 50-150 bamboo rods.

When the Sumberdeling spring water was depleting, and their paddy fields were suffering from it, the villagers then realized the importance of bamboo forest. The data showed that the water-flow level only reached 300-500 liter per second. An idea to rehabilitate the bamboo forest emerged, and the dissemination for plan of action to villagers was conducted intensively. In 1990, the awareness of villagers about the importance of the bamboo forest improved.

To prevent further deforestation of the bamboo, a local regulation was enacted in 2000. Its prohibits people from cutting down the bamboo without the permission of the village authorities and the local conservation group. Fine for any violation of this regulation was set at Rp. 50,000.

Herry has been active in local conservation group named Kalijamber since 1994. Along with its 25 members, the group never got tired of preserving the bamboo forest. After the bamboo forest conditions improved, Sumberdeling spring water slowly improved. At present the spring can discharge 600-800 liter of water per second. In addition to its capacity of storage an abundant water sources, the lush bamboo forest has also become a habitat for a number of fauna, such as monkey, bat and various species of birds.

"In the bamboo forest there is a total of approximately 100 monkeys." The bamboo forest is habitat of long-tailed monkeys," said Herry. The number of its population was rapidly increasing compared to when it was in 2000. At that particular moment its number was not more than 15 monkeys. The numbers of monkeys were continuously decreasing because the villagers hunted them down. After the villagers' awareness to protect the animal increased and they stopped hunting them, numbers of monkeys increased tremendously. There are also thousands of bats living in the forest.

In the Lumajang district, Laskar Hijau Group also made the effort to rehabilitate the forest by planting bamboo trees. They cultivated bamboo in Lemongan mount slopes, Lumajang. One of the Laskar Hijau activist figure, Abdullah Kudus, stated they have planted 3000 black petung bamboo seedlings in the area since 2013. Thousands of the seedlings are being planted across the 5 hectares of land. "For the belt mountain," told Abdullah to *Tempo*, last week. "We are planning to plant more of the ten thousand black petung seedlings."

Black petung bamboo, according to Abdullah, is a type of bamboo that are



quite rare. Its existence is only at four locations, including the slopes of Mount Semeru, Manggarai in East Nusa Tenggara, Africa, and the Amazon rainforest.

The black petung bamboo has by far a better conservation ability for environment. It could save over 0.8 meter cubic of water in its stalk. For the next five years, the black petung bamboo is expected to be able to be harvested in Lemongan Mount. "It means that a new spring water will appear," said Abdullah.

Still related to the ability of bamboo in conservation, Head of the Regional Office of the Ministry of Forestry in Lumajang, Imam Suryadi stated that the Government is planning to create bamboo forest in the Kandangan Village, Senduro sub district, which is also located on the slopes of Mount Semeru. There is about 10 hectares of land that will be planted with bamboo. This year, the planting for 4-5 hectares will start, and the rest of the land is expected to be complete in 2015.

The variety that is being planted is the black petung bamboo. "The bamboo forest in the Sumbermujur was able to maintain the presence of spring water, which is an undeniable fact with regards to the advantages that the bamboo forest has," he said.

Chairman of the East Java Bamboo Council, Agung Setiawan is in an agreement about bamboo's abilities to reserve water. In his opinion, bamboo is one of the plants that can functions well as water reservoir. This plant possess an empty space in its stem that could be filled with water during rainy season. The rod as high as 20-24 feet with a diameter of 20 centimeters, can store up to 0.56 cubic meters of water. If a clump of bamboo rods contains 70 stems of bamboo, the amount of water contained reaches to 39.2 cubic meters. That is just from the trunk, not to mention the similar ability of its roots to store water.

With all of those advantages, it is reasonable that Agung, Herry, and Abdullah expect to see that there is a mass movement in planting more bamboo.

*) Translated by Angela Duta Patria, from *Tempo Magazine's Article : Kembali ke Emas Hijau*, by Kurniawan, Cheta Nilawaty, Sorta Tobing. Published on 12 January 2014.



Indonesian Bamboo National Strategy

“Stronger than steel”, some might say. And it would best refer to bamboo. Bamboo may be the strongest raw material on the planet. It has greater tensile strength than steel, and it withstands compression better than concrete.

According to Dr. Hans Friederich, Director General of International Network for Bamboo and Rattan (INBAR), at the recent Forests Asia Summit in Jakarta, bamboo’s many uses make it a valuable non-timber forest product. It can be used for climate-smart housing, furniture and provide a source of energy as an alternative to wood. He also pointed out bamboo’s role in food security as it can be utilized as a source of nutrition among other things.

There are about 37 million hectares of natural forests or cultivation of bamboo which is equivalent to one percent of the world’s forest area, five percent of which are in Indonesia while China has 14% and India has the largest portion with 30%. The subfamilia Bambusoideae is widely grown in Indonesia. As the Ministry of Forestry indicated that Indonesian forest has so far yielded five percent of timber, and approximately 95% is non-timber forest products (NTFPs), most of them are bamboo.

Based on the data from the Ministry of Forestry there was an increase of 24% of the revenue from bamboo’s trade from 2010 to 2011.

Indonesia has at least 160 species of bamboo and 33 species of which are in the study. Of the 33 species of bamboo, the new ten types are prospective to be developed. The government will focus on the development of the bamboo industry in five provinces in the coming years. The five provinces

include Central Java, West Java, East Java, Bali and Yogyakarta. The program is promoted to encourage bamboo commodity to be more likely to attract the market. According to Central Bureau of Statistics of the Ministry of Commerce the Indonesian export value in 2011 reached US\$ 193.33 million. While according to the United Nations Comtrade statistics, Indonesia’s bamboo export to Australia ranks the largest with the trade value of US\$ 305.500, 00 in 2013.

In Indonesian bamboo management, there are several basic principles that should be considered. Among

others is the national strategy policy, which are the implementation of the Regulation No. 23 Year 1997 on Environmental Management and Regulation No. 5 Year 1994 on the Ratification of United Nations Convention on Biological Diversity.

The government, hence, held National Bamboo Congress in 2013 to promote the potential of bamboo as a national commodity. The event has served as a media to strengthen national bamboo productivity. In addition to that, the Congress was expected to encourage business people to develop the bamboo industry.

The goal was to promote bamboo as a substitute for wood resources that has been commonly used in various aspect in community everyday life.

To improve the image of bamboo in society, the government has been continuously creating some strategies such as the following:

1. Conducting an inventory and mapping of bamboo as a basis for determining the policies of preservation and sustainable utilization of bamboo;
2. Performing bamboo development system of agribusiness and agro-industries. The growing need of bamboo for construction needs to be balanced with the development efforts in the field of bamboo population to meet the demand for raw materials;
3. Rehabilitating degraded lands by planting bamboo because bamboo is the right type of plants used for conservation efforts for sloping soils that are prone to landslides and critical areas;
4. Promoting the use of bamboo. The information dissemination on various ecological and economic benefits of bamboo needs to be increased as an effort to gain more adequate appreciation from society;
5. Increasing bamboo conservation. It is necessary to build a bamboo forest conservation to establish the preservation of indigenous type of bamboo;
6. Developing the bamboo industry. Strong impetus to market bamboo products needs to be continued and increased;
7. Encouraging local people in a bamboo care community both in the perspective of conservation and utilization optimization.

Indonesian Bamboo Export Destination in 2013

No.	Partner	Netweight (kg)	Trade Value (US\$)
1	Australia	328,630	305,500
2	Other Asia, nes	737,081	303,435
3	Germany	70,647	87,529
4	Maldives	21,020	66,264
5	Netherlands	20,858	46,547
6	Spain	23,262	44,278
7	France	29,775	42,822
8	Turkey	15,762	42,631
9	USA	29,782	40,871
10	United Arab Emirates	69,300	38,492
11	United Kingdom	30,880	35,103
12	Singapore	89,413	27,875
13	New Zealand	5,025	22,409
14	Mauritius	3,231	16,595
15	Switzerland	1,653	14,491
16	Belgium	7,410	13,843
17	Saudi Arabia	20,225	13,115
18	Oman	61,700	12,380
19	Jamaica	2,167	9,594
20	Italy	16,750	7,210
21	India	3,360	6,611
22	Portugal	1,829	6,150
23	Denmark	1,784	5,546
24	Rep. of Korea	1,100	5,342
25	Malaysia	20,640	4,823

Source: UN Comtrade Database, 2014

The Customs Co-operation Council of the World Customs Organization (WCO) recommended 10 new codes for bamboo and rattan products in the Harmonized Commodity Description and Coding System (HS), at its 123rd /124th Sessions in June 2014. When the new system comes into effect in 2017, 24 types of bamboo and rattan products with individual HS codes and nomenclature will be classified and recorded by customs officials when they are traded between countries. This progress will help push forward the trade facilitation of bamboo and rattan commodities in the international market. The enhanced recognition of bamboo and rattan products in the international market will provide the possibility for developing countries to monitor, assess and stimulate the evolving trade and developing markets of the commodities. The new HS codes will significantly enhance the quality of global trade data of bamboo, and more accurately reflect the overall status of bamboo trade.

There are many considerations needed before investors finally agree to invest. It has been widely known that one of the consideration in investing lies in the choice of the product. Will the product give good returns? Could the product be widely used for the societies? Bamboo could be the answer for those two questions. As we know, there are many advantages from bamboo, such as:

1. Eco-friendly

Based on the Center for International Forestry Research (CIFOR) and the International Network for Bamboo and Rattan (INBAR) research, bamboo is considered as low carbon resource. This condition makes bamboo ideal to be used for food, construction material, fiber, and even energy source when bamboo is applied as charcoal (Shea, 2014). The effort to support biological diversity and protect the environment is aligned with the bamboo massive distribution.



Source: UN Comtrade Database, 2014

In addition, due to its pest-resistance characteristic, bamboo does not need any pesticides and fertilizer to grow. Thus, bamboo will be less contaminated of pesticides residue.

2. Sustainable

Another advantage of bamboo is its growth speed. Its ability to grow is the fastest in the world. Studies noted that bamboo vegetative growth could reach 30cm-120 cm in a day (depending on the environment). Bamboo fast growing speed could be the key in fulfilling sustainable need of bamboo, instead of keep consuming hardwood which could lead to deforestation.

3. Highly Profitable

Bamboo does not require high-cost investment since the maintenance for this plant is only at the beginning of the planting process. Once bamboo is considered stable, the continued result will be instantly gained. Thus, it could be concluded that bamboo plant is easy to grow and does not need any particular treatment.

High quality bamboo can be seen from its length, fiber density, and flexible rod characteristics. Bamboo could be cultivated by using simple equipments.

Growing bamboo only needs approximately 5 years, which is way faster than hardwood that needs half of century to finally reproduce.

Due to its adaptability to any environment, bamboo is easily found in almost every island in Indonesia.

With low start-up cost and sophisticated processing, bamboo could be transformed into many selection products, such as clothing fabric, board sheet, and even food based bamboo shoots.

With all those advantages, bamboo is also considered as one of best alternatives in replacing wood based property.

There are 180,094.23 hectares of bamboo plant (with approximately 540,962,125 rods) in 22 provinces in Indonesia. Surprisingly, although there are many bamboo distribution in Indonesia, the number of adequate bamboo field in Indonesia is still very low. This unfortunate situation should be fixed immediately considering bamboo's economic value.

The cost in making bamboo field could be measured by the cost of the workers, soil preparation, and the irrigation system. The total cost will be slightly different from hardwood plantation. The main difference lies in the return of investment. Due to its fast regeneration, the return of investment from bamboo plantation will be faster and take only around 10 years. Well, isn't it interesting? Go spread the words, and start investing in bamboo.

{ N Hardiani & K K Dewy }

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Profile



Jatnika Nanggamiharja

The Man Behind the Bamboo

In the past, bamboo houses were almost always identical to poverty because mostly low-income families in the rural areas or remote regions of West Java lived in bamboo structures. Today, however, the rich are increasingly interested in bamboo houses because of its advantages. In Indonesia, which is often hit by earthquakes, bamboo houses are very useful for earthquake resistance. Bamboo houses have a flexible power so that even when they are old, bamboo houses will not collapse easily.

Jatnika Nanggamiharja, who was born in Cikidang, Sukabumi, October 2, 1956, is still very much involved in bamboo craftsmanship. He has built more than 3,000 bamboo houses in both domestic and overseas markets. He set aside his business profits to the afforestation of the river bank. Since he was a child in the village Cikidang Sukabumi, he already got involved in musical arts and Sundanese bamboo crafts. Then, his expertise is developed to make a variety of bamboo furniture and bamboo houses typical of West Java.

After completing his studies in Jakarta Corporate Leadership Academy in 1981, he started his bamboo business while working at a publishing company. He began to export bamboo crafts to Taiwan in 1985, and since then he is more focused on this business.

When he joined the bamboo house exhibition in 1995 at Lapangan Banteng, Mrs. Try Sutrisno the wife of former Indonesian Vice President, Mr. Try Sutrisno, asked him to establish together Yayasan Bambu Indonesia. Since then, Jatnika expanded the export of bamboo houses.

Jatnika admitted that he has developed 41 models of traditional bamboo houses typical of West Java. In collaboration with PT Angkasa Pura II, he has patented the copyright for semi-permanent bamboo house in 2006.

To build a house, it takes four types of bamboo which are Bitung, Gombong, Tali Bambu, Black Bamboo. Especially for the bamboo collection, he uses 17 types of bamboo, among others Gombong, Bitung, Tali Bambu, Black Bamboo, Black Bitung, and Bambu Tutul. Jatnika also used a rope of fibers to connect the bamboos.

"The main construction technique is how to joint the each bamboo" he said. To ensure the strength of a bamboo, two things must be noted, the time of cutting bamboo and the preservation techniques. While in the process, Jatnika still maintained the distinctiveness of the bamboo that has existed since hundreds of years ago. "Bamboo house that I designed, I didn't do entirely modern modifications. I still keep its characteristics by maintaining the original architectural style of Sundanese culture.

He lived in a simple bamboo house that was built within the Yayasan Bambu Indonesia vicinity, where he has led since 1995. The advantages gained from the construction of bamboo houses are also used for the procurement of seeds, which are then planted as part of reforestation activities.

"I love to plant bamboo, it is my effort to give back to nature," says the husband of Marsidah and a father of 6 children.



The construction of each house usually takes three months. Since 1985, Jatnika said that he has been constructing more than 3,000 bamboo houses. He pegged the cost of constructions between Rp 1.2 million to Rp 2.5 million per square meter. To build a house, it takes about 50 square meters.

Yayasan Bambu Indonesia (Indonesian Bamboo Foundation) In an area of 5,000 square meters owned by Yayasan Bambu Indonesia at Bumi Cibinong Indah, Bogor, West Java, Jatnika trained experts in the field of manufacturing bamboo houses. They are equipped with the capability of martial arts "Cimande". This typical martial art of West Java gives them strength so that they are able to build strong and durable bamboo houses.

Afforestation is mainly done around the river as a cliff barrier. Bamboos which have been planted, already grown well on the banks of the Ciliwung River, Cisadane, and Ciluwer. In his hometown, Jatnika planted more than 10 hectares of bamboo on the banks of the Cimande River. The bamboo plant is not merely useful to prevent erosion of the river, but also to provide welfare to the local people.

Indonesia is rich with 160 species of native bamboos, of which 95 types are found in West Java. However, Jatnika is worried that if bamboos were still considered as wild plant, the development of bamboos plantation will not be taken seriously.



According to Jatnika, nearly 1,000 hectares of bamboo forest in Bogor were cleared within the last five years. In fact, he said, the life and culture of the people of Indonesia can not be separated from the bamboo that provide them raw material as well as food.



His hopes for bamboo...

There are three obsessions that he wishes to accomplish; building an Integrated Bamboo Village, building a Bamboo Tourism and Culture, and promoting the bamboo craft industry.

"Bamboo is the identity of this nation," he said.

Considering the economic and ecological functions of bamboo, Jatnika hopes Indonesia will have a bamboo tourism park that hosts the country's diverse species of bamboo.

{ R Nizawati }

Profile



Saung Angklung Udjo, Swing Your Angklung!

Saung Angklung Udjo was established in 1966 by Mr. Udjo Ngalagena and his wife, Mrs. Uum Sumiyati. Way back in 1958, he had learned angklung from Prof. Daeng Soetigna. Mr. Daeng was the one who could alter the diatonic note to pentatonic in angklung so that the instrument can be played in different musical genres. Therefore, angklung can be performed through all musical genres.

Mr. Udjo was once the assistant of Mr. Daeng Soetigna. He even led performances on behalf of his teacher. Inspired by Mr. Daeng Soetigna, he decided to establish a place where the art of Angklung music can be preserved.

His passionate love for art, culture, children, education and environment are also the reason for Mr Udjo and his wife to establish Saung Angklung Udjo. Angklung itself is made from bamboo pipes attached to bamboo frame. Each of the instrument has the sound of only one specific note.





How was Saung Angklung Udjo recognized by many people?

In 1966, Saung Udjo was just a small house where people could come to learn and play angklung. To make angklung more popular, Mr. Udjo and his wife tried to invite their friends to watch their angklung performance. Unfortunately, there were only 4-5 visitors who came from a far, such as from Jakarta. However, they never gave up. They also walked around the town at 10 pm just to play angklung. The couple chose to play angklung at 10 pm because at that time most people were already resting so the city became quite silent. They used to go back and forth for around 16 kilometers. They got no payment at all but it did not stop them since they were happy because they truly loved angklung.

What is the Philosophy of Saung Angklung Udjo?

Nature and Culture in Harmony
As a form of environmental responsibility, Saung Angklung Udjo dedicates itself to conserve and preserve the natural environment by getting involved in the 'Indonesia Planting' Campaign, in cooperation with the Ministry of Forestry. As a result, Saung Angklung Udjo has more trees in its vicinity nowadays. Saung Udjo also produces drinks which are made with natural materials, such as grass jelly.

Saung Angklung Udjo also adopts the philosophy of easy, affordable, educative, attractive, massive and cheerful. It spreads the values of cooperation, unity and togetherness, as well as maintaining relationship between human and environment. It teaches visitors the meaning of conservation of the cultural and natural environment through angklung and planting trees.

Behind the Scene of Saung Angklung Udjo?

There are 200 official workers (angklung makers) in Saung Udjo. However, since they have adopted the home industry system, the workers can work in their homes and get some help from their family so it will be more efficient and effective.

Nevertheless, there are also 8 workers who work in Saung Udjo to control the quality of every angklung they have made.

How many angklung that can be produced in a month and where do Saung Angklung Udjo get their bamboo supply?

With those workers, Saung Udjo can produce up to 3,000 pieces of angklung in a month. There are bamboo suppliers from some areas in Indonesia (particularly from West Java), such as Pelabuhan Ratu, Tasikmalaya and Garut. However, instead of continuing to depend on the supplier, Saung Angklung Udjo is trying to plant bamboo themselves. Most of the beautiful angklung made in Saung Udjo are for sale. For angklung performance itself, Saung Udjo prefer to use the old ones.

The Ups and Downs of Saung Angklung Udjo?

There are more good times than hard times in introducing and promoting angklung worldwide. Long time ago, angklung was less popular and the world tends to underestimate it. The situation back then was totally different from today. The world acknowledges angklung as one of some great traditional musical instruments. Angklung can create soothing melodies, and it is adaptable for both classical and contemporary sounds of music. Besides, it is



made from nature. Some people even describe its sound as 'music from heaven'. Playing angklung is easy, even for beginners. You will be able to play it in a blink of eye, since all you have to do is shake the angklung gently.

Tough times happened when Saung Udjo performs overseas, and the instruments were damaged. They needed to be fixed quickly. Angklung is fragile. If it gets wet, then it will be more vulnerable to pest damage. To prevent pest damage, it must be played regularly. If we bring it to countries which have extreme weather with temperature of more than 30° C, angklung will be damaged. The right temperature for angklung is around 20-30° C. Because of that, everytime the team of Saung Angklung Udjo must perform in other countries, they should bring a lot of tools to fix the damage. In short, angklung needs special treatment. The other weakness of angklung is that it sounds different when recorded.

What are Saung Angklung Udjo's Achievements?

Saung Angklung Udjo set the new world record in Beijing for The Largest Angklung Ensemble in 2013. Before that, it had already set the world record angklung ensemble in Washington D.C., USA, in 2011, in which thousands of people from different nationalities and cultural backgrounds together swayed bamboo instruments and made melodious music.

The Most Favorite Performance in Saung Angklung Udjo?

Interactive angklung performance is the most favorite show in Saung Angklung Udjo. The show involves visitors (the audience) playing angklung. Moreover, in the end of the performance, adorable children performers invite visitors (audience) to join them in a group dance and they will make everyone feels as if they are going back to their childhood time.

Saung Angklung Udjo offers a complete package. Visitors can experience not only the angklung artistic performance, but also active engagement with nature. They can become part of Saung Udjo's activities.

The Innovation of Saung Angklung Udjo?

The latest one is Grand Angklung. It is a modification of angklung that is made to be more flexible and has a variety of ways to play it. The player will be able to reach the wider range of octaves as well by using Grand Angklung. Grand angklung will be played on special occasions.



The Expectation of Saung Angklung Udjo in the near future?

Angklung can become a subject in every school in Indonesia. Therefore, Indonesians will not only see angklung as a unique heritage of its' country, but also have the courage to develop it.

There are opportunities for angklung to be more popular. For example, if we can have angklung lessons in schools outside Indonesia, it will be a great opportunity to make angklung more popular just like in schools in Malaysia, Japan and South Korea. Saung Angklung Udjo wishes that it can be accepted in America and Europe but there are some challenges to face such as distance.

{ A P Dewi }



100% Indonesia

“That Green Gold” is called bamboo...

Bamboo is a plant that is very close to the community of Indonesian people, but the advantages are still not widely recognized and realized. Indonesia has made use of bamboo since the days of the ancestors. For example, some of our traditional musical instruments are made from bamboo. Only a few people know how to take the full advantage of bamboo. This article tries to explain the many beneficial functions of bamboo that some of us may do not know yet. But first, let us have a brief profile of bamboo plants.

Getting closer to bamboo plants

Bamboo is a kind of herbaceous plants with cavity and concrete-layer in its stock. In this world, bamboo is one of the fastest-growing plants because it has unique, rhizoma-dependent system. Some advantages of bamboo are:

- Easy to grow and does not require special maintenance.
- Does not need big investment to cultivate.
- Bamboo has long, dense and flexible fibers that give strength and make it durable. Bamboo's growth speed in resolving its vegetation growth is the fastest among other plants.

- Cultivating bamboo can be done by anyone, without requiring specific tools or prior experience and knowledge.
- Bamboo has high resistance. For example, a burned clump of bamboo will still be able to grow. When Hiroshima was hit by atomic bomb in 1945, bamboo was the only plant that could still survive.

Types of bamboo that grow in Indonesia:

Indonesia has 12% of the world bamboo collections with approximately 125 species of bamboo. Some types are still wild-growing and its usefulness is yet unknown. Some specific types of bamboo have high economic value or benefits such as: bambu apus, bambu ater, bambu andong, bambu betung,



bambu kuning, bambu hitam, bambu talang, bambu tutul, bambu cendani, bambu cangkoreh, bambu perling, bambu tamiang, bambu loleba, bambu batu, bambu belangke, bambu sian, bambu jepang, bambu gendang, bambu tali and bambu pagar (Berlian and Rahayu, 1995).

Benefits and uses of bamboo plants

Bamboo is the most important folk plant and it has many uses for everyday life, either as a household needs as well as for commerce. Almost every farmer in the countryside has bamboo plants in their garden. Bamboo plants are generally very effective for reforestation areas because of the fast growth of bamboo groves, resilient to the environmental challenge as well as high ability to effectively absorb water.

The Green Gold

Bountiful supplies of bamboo trees in Indonesia turned out to be a promising business opportunity. For a long time people just make use of bamboo as a building material, but now bamboo can be transformed into a variety of beautiful crafts with fairly high economic value.

Although bamboo handicrafts originally are of interest to the community from remote areas, with the rise of the issue of global warming in the world community, many people are interested in using environmentally friendly products for their daily lives.

Indonesia has plenty of industries with bamboo as the main commodity. The Ministry of Forestry has said that during



this time, Indonesian forestry produces 5% wood and 95% non-wood of which the majority is bamboo. That is why the potential of bamboo industry is still wide open. They said that in the future bamboo will take part as commodity to be reckoned with. It is due to the data of the Forestry that revenue from bamboo has increased 10%-20% annually since 2010.

Economic value of bamboo

The products made from bamboo material have good economic value. There are plenty of products which can be produced including textile material for clothing, material for building, various kinds of delicious food, aesthetics and culture, health and many more. Through some high tech processing, bamboo could be the best quality paper, medicines etc.

The Art and craft of bamboo...

It is true that Indonesia is well known for its traditional culture and arts. Using bamboo as material, lots of crafting industries produce high quality and beautiful art crafts. Indonesia is also well known for its heritage in traditional musical instrument, which with no wonder, bamboo is one of the most often used materials besides wood or other plants.



In Indonesia, the crafters do not only produce various kinds of craft to decorate rooms but they also create some kind of innovation that can be much more functioning. As example, the Gapura Agung in Biltar, East Java. It is a craft business group that has started to create dinnerware set. There is also UD. Cococraft Kreasi Gemilang that produces handicraft and furniture. Cococraft has exported their products to the US, Latin America, New Zealand, India, Singapore, Japan and Malaysia. Beside Gapura Agung and Cococraft, another success story comes from Jatnika from Cibinong, West Java, who successfully traveled around the world promoting saung (the summerhouse in Sundanese tribe). Jatnika is now overwhelmed by orders coming from Malaysia and Saudi Arabia.



The advantages of playing in Crafts...

Besides the high market demand that is still wide open, running this business is very profitable. The abundance of bamboo's potential in Indonesia would indirectly give a big advantage to crafters because the selling price of raw bamboo is still low, that even some crafters have already cultivated bamboo in their forecourt. And then, producing various kind of crafts from bamboo is believed to be an opportunity to have eco friendly business. It is surely giving the benefit as nowadays there are many campaigns against global warming in all societies in the world, which will indirectly influence buyers' interest to bamboo.

In Indonesia, there are five regions which are most productive in running bamboo business: Central Java, West Java, East Java, Bali and Yogyakarta. More regions are now starting to stretch and be aware of bamboo's potential. Some famous and good-to-sell bamboo products of craft are:

- Dinnerware (spoon, plate, bowl)
- Furniture (desk, chairs, lamps wall cabinets, ladder, floor material, plafond)
- Household appliances (basket, mattress, partition, vertical blind)
- Saung

Indonesian traditional music instrument made from bamboo is as famous as its art and craft. These instruments create beautiful sound. Some kinds of these instruments such as angklung, calung and sasando have been very popular abroad. Academic as well as cultural institutions in America and Europe perform musical shows using Angklung, Calung or Sasando as part of the instrument. These are famous instrument made from bamboo that is comes from Indonesia:

- Angklung
- Calung
- Suling Sunda
- Sasando
- Karinding
- Celempung
- Saluang
- Sarunai
- Rindik

Art and craft as well as musical instruments made from bamboo are not the "it" thing about the potential prospect in bamboo industry. There are trend nowadays that more and more people start to pay higher attention to health. More people are now having a changed a lifestyle, from a junk food-for-lunch-dinner type into an organic-food-lover type. This lifestyle also influence other things about health, for example

choosing the material for cloth, and in this case is underwear. Lots of man and women are now moving for a healthier cloth material for underwear. And guess what? Bamboo is that material. Yes, bamboo fiber is processed to be made cloth material and it is used to get the benefits of healthier vital organ, and diminishing leucorrhoea and odor. Another great new innovation from bamboo is bamboo charcoal, which is very good in absorbing odor, purifying air and diminishing air humidity so that we can get healthier fresh air.

Discussing bamboo in Indonesia is incomplete without mentioning about its culinary products made from bamboo. Indonesia is popular for its rich culinary tradition. One example of Indonesian ulinary icon from Semarang, Lumpia, which is famed for its delicious savory taste, uses bamboo shoots as its main ingredients. The culinary business made from bamboo is quite vibrant and prospective. Besides using bamboo shoots (rebung) for lumpia, bamboo stock is also used for dish plate. This unique plate is massively produced since there are lots of restaurants and food stalls having menu using bamboo stock. And it appeals the appetite of people. That is why for many Indonesians, the prospect of having this kind of business is tempting.

Seeing all the benefits of bamboo utilization in Indonesia, it is arguably correct to claim that bamboo is a "high value" landscaping plant that sells more than most landscaping trees and shrubs. That is why getting involved in the business of bamboo is a profitable way to give people the lucrative income they may have dreamed of.

{ C Paramita & LP Lestari }



(Foto: web/afdi)

100% Indonesia

Bamboo Investment in Indonesia An Unpolished Gem

Bamboo is simply everywhere. You name it: constructions, dinnerware, pulp, bio chemical products, charcoal, musical instruments, or even food ingredients. Take a look at the room you're in at the moment, there must be something made of it, it's inevitable.

It has been mentioned, that at least 1.5 million people in the world depends on bamboo for their daily lives. Most likely, that includes you.

An interview with Ibu Endang, Deputy Assistant for Investment and Ibu Anne, Head of Agriculture and Forestry Division of the State Ministry for Accelerated Development of Disadvantaged Region, revealed some interesting insights on bamboo investment in Indonesia.

Commenting on the question of bamboo potentials in Indonesia, Ibu Endang mentioned: *"Bamboo has not been considered as product with high selling price by Indonesians. A lot of producers have no market network, and ideas on what bamboo can be used for"*.

Bamboo is practically a unique plant, its ability to grow practically everywhere makes it available throughout most of the world's land area. Indonesia is already a major player in the bamboo industry. As a matter of fact, Indonesia



Ibu Anne (left) and Ibu Endang (right) pictured while on the interview.

is the third largest bamboo producer in the world, preceded only by China and India. Although this fact is apparent, Indonesian bamboo producers depends their production mostly on wildly grown bamboos, making it hard for them to produce targets of productions. (Andriansyha, 2009).

The increasing demands for bamboo from Indonesia has not been fully met by current national production. The Ministry of Forestry data in 2005 suggested that the total area of bamboo forest in Indonesia is only around 2.1 million hectares, comprising of 0.69 million

Ha of stateforest lands and 1.41 million Ha of private/community lands. Indeed, bamboo has not been considered as a main industrial plantation or main subject for conservation plan in Indonesia.

This fact is confirmed by Ibu Endang, who mentioned that the Indonesian Ministry of Forestry recently just stated its interest in creating bamboo gardens in several regions in Indonesia. *"In China, bamboo gardens are also developed as an ecotourism spots, making them very interesting for people"*, she added.



The interest in bamboo investment in Indonesia has not generally developed yet; this is partly due to the difficulty in sustaining a good quality of bamboo seeds (Pramono, 2012). By looking at its potential use and characteristics, the development of bamboo and its industry becomes strategically important for Indonesia. (Pramono, 2012). Namely, this is due to several factors:

- Bamboo can be used as commercial goods. As a matter of fact, it is the oldest building materials recorded in history. The fact that bamboos can be used as it is in construction works makes it very applicable for usage in developing countries. What makes it more interesting as a building material is bamboo's resistance against natural disasters such as earthquake, making it very relevant for Indonesia's characteristic as an earthquake-prone country. Bamboo is a major construction material in Indonesia, particularly in rural areas.
- Bamboo has a high rate of growth, even compared to fast growing species. Making it a high carbon deposit plant. Bamboos can grow to up to 5 cm per hour or 120 cm per day. Bamboo can already be harvested in 3-5 years' time, in comparison to traditional timber's 20-50 years harvesting period.
- Indonesia has more than 130 variants of bamboo, covering of at least 10 percent of the world's bamboo variants.
- Indonesia has the perfect climate for bamboo. This is apparent in the fact that Bamboo has long been used as a part of life and culture of the Indonesian society.

Commenting on the competitive advantage of Bamboo in comparison to other plants, Ibu Endang mentioned that: *"I think bamboo is better, this is due to the fact that bamboo is environmentally friendly. Bamboos even can be used to prevent erosions"*.

This fact adds to the positive edge of developing bamboo in erosion-prone areas in Indonesia. Bondowoso is mentioned by both officials as an example of places where the municipal Governments are starting to be interested in planting bamboos.

When asked about what is needed to be done for the Indonesian Bamboo investment to develop, Ibu Endang and Ibu Anne mentioned that market access is the most imperative factor.

"Bamboo producers in Indonesia are not big players yet, so if we want to start improving, we should start from the market access. With better availability of market access, they (bamboo producers and investor) will grow" Ibu Endang added.

Realizing the potential of bamboo resource for rural development and poverty alleviation, the Ministry of Forestry has taken strategic steps for bamboo industry development through the issuance of three ministerial decrees and one executive decision.

The first decree, No. P35 of 2007, specifies 557 species of flora and fauna comprising nine groups of non-wood forest products that fall under the Ministry's administration, one of which is bamboo group products; the second decree, No. P19 of 2009, defines the basic strategy for bamboo industry development to be pursued at the national level; the third decree, No. P21 of 2009, spells out the criteria and indicators for prioritizing NWFP

species for development; and executive decision of DGWMSF No. SK22 of 2010 identifies bamboo as the prime commodity for development first in Bangli District of Bali, and further nationwide.

When asked about which specific area of Indonesia is potential for Bamboo investment, Ibu Anne and Ibu Endang agreed that Bamboo developed heavily on the Java Island, especially variants such as Apus, Ori, and Betung.

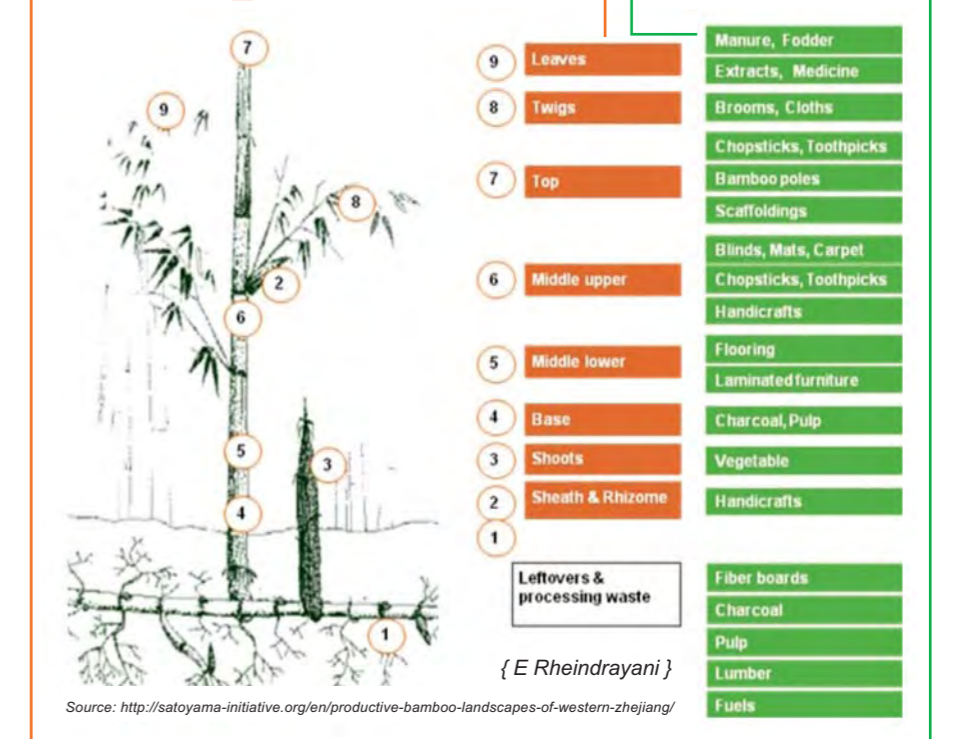
"But if there is an effort for it, I am sure there are a lot of potentials. I saw in North Toraja that there are a lot of betung bamboo being casted around. This is because the people there has little or no information about market access. Once again this is due to the fact that there are limitations on the continuity of production, and export quality requirements." Ibu Endang added.

Indeed, by looking at these realities, in order to push bamboo investment further on Indonesia's soil, at least several factors need to be encouraged, namely: (1) explorations and information dissemination on the use of bamboo products so that demands on bamboo products can increase; (2) development of bamboo plantation and bamboo forest, to ensure product continuity; (3) high quality bamboo seeds need to be available widely; and (4) bamboo producers facilitations, such as bamboo associations, must be established.

Bamboo, the gem that has not been polished yet, is indeed a potential product for Indonesia.

{ M J Nurhasya }

Multiple uses of Bamboo



Sources: Andriansya, G. (2009, Juni 25). Kebutuhan Terus Meningkat. Saatnya Budi daya Bambu. Dipetik Juli 7, 2014, dari Antara Jawa Barat: <http://www.antarajawa-barat.com/media.php?module=detaillberita&id=6332>
Kementerian Kehutanan. (2009). Project Proposal: International Tropical Timber Organization. Dipetik 7 18, 2014, dari ITTO: http://www.mofa.go.jp/mofaj/gaiko/itto/pdfs/47_indonesia2.pdf
Pramono, J. (2012). Kebijakan Sektor Hulu dan Peran Kemenhut dalam Pengembangan Bambu. Rapat Forum Kerjasama Pengembangan Bambu Nasional. Jakarta.

Calendar of Events

TRADE & INVESTMENT

8 - 12 October 2014	Trade Expo Indonesia (TEI) & Gelar Potensi Investasi Daerah (GPID) 2014	Jakarta International Expo, Kemayoran, Jakarta	Biggest annual trade and investment expo and forum in Indonesia, hosted by Ministry of Trade and Indonesia Investment Coordinating Board.
9 - 12 October 2014	Jogja Trade Expo/ PPED	Jogjakarta	Multiproduct trade expo.
2 - 5 November 2014	Indonesia International Seafood and Processing Expo (IISP) 2014: Defining Quality in Seafood	Bali Nusa Dua Convention Center, Nusa Dua, Bali	IISP 2014 aims to bring the world's most essential seafood industries to the heart of the archipelago and showcases the finest quality of global seafood products. The Indonesia International Seafood & Processing Expo will play its part in reinforcing the global seafood market by giving mass opportunities for both Indonesian and International seafood industries to promote the finest seafood products and its aligned industries.
19 - 22 November 2014	Plastics & Rubbers Indonesia 2014	Jakarta International Expo, Kemayoran, Jakarta	The 27th International Plastics & Rubber Machinery, Processing & Materials Exhibition. Incorporating : Mould & Die Indonesia.
3 - 6 December 2014	Manufacturing Indonesia 2014 Series & Machine Tool Indonesia 2014	Jakarta International Expo, Kemayoran, Jakarta	The 25th International Manufacturing Machinery, Equipment, Material and Services Exhibition

TOURISM

2 October 2014	Pekan Batik Nusantara	Jetayu, Pekalongan, Central Java	A festival to celebrate National Batik Day, when batik was officially recognized as a world cultural heritage by the UNESCO
12 - 14 October 2014	Solo Culinary Festival	Galabo, Solo, Central Java	All about Javanese culinary culture
1 - 2 November 2014	Festival Barongan Blora	Blora City Square, Blora, Central Java	A festival featuring Barong, which is traditionally believed as a representation of the leader of hosts of good.
December 2014	Pandanaran Art Festival	Pemuda Street, Semarang, Central Java	An event articulating the cultural richness of four biggest ethnic groups in Semarang, which are Javanese, Dutch, Arabic and Chinese.
December 2014	Sebaran Apem Keong Mas	Pengging, Banyuwana, Boyolali, Central Java	A traditional rituals where people struggling to get the apem kukus keong mas. Apem is a traditional cake made of rice flour wrapped in coconut leaf.

{ A Primasty }

Contacts

Bamboo Entrepreneurs and Activists

Bamboobos
 Contact Person Yogyakarta: J. A. Sonjaya (Direktur)
 Mobile: +62812 2775170
 E-mail: info@bamboobos.com, jajangsonjaya@gmail.com
 Contact Person Bogor: Weningtyas Kismorodati
 Mobile: +62822 60028312
 E-mail: weningtyas_k@yahoo.com
 Website: http://www.bamboobos.com/index.php?page=home

Bambu Nusantara, Banten
 Contact Person: Das Albantani
 Website: http://www.indonesianvillage.com/#founder@indonesianvillage.com
 Network: https://twitter.com/bambunuswantara
 https://www.facebook.com/bambunusantara/info

Dusun Bambu
 Contact Person: Ronny Lukito
 Address: Jl. Kolonel Masturi KM. 11
 Situ Lembang - Bandung Barat
 Phone: +6222 82782020 / +6222 82782021
 E-mail: Marketing@dusunbambu.com
 press@dusun-bambu.com
 Network: Twitter @dusun_Bambu
 Facebook: Dusun Bambu Resort
 Instagram: Dusunbambu

" Herbarium Bogoriense " Puslitbang Biologi
 Contact Person: Elizabeth Anita Widjaja
 Address: Jalan Raya Bogor Jakarta Km 46
 Cibinong - Bogor - Jawa Barat
 Phone: +6221 8765067
 E-mail: ewidjaja@indo.net.id Bidang

Indonesian Bamboo Community
 Contact Person: Dipl.-Ing. Adang Muhidin, ST
 Phone: +62821 28088152
 Santa Rahmat: +62 853 51880598
 Address: Perumahan Lembah Teratai Blok F2 No. 3
 Kab. Bandung Barat - Jawa Barat.
 Phone: +6222 61392196
 Workshop: Jl. Pagarsih Barat No. 15
 Kotamadya Bandung - Jawa Barat
 Website: http://www.indonesianbamboocommunity.com/

Komunitas Cinta Bambu, Bandung

Contact Person: Ir. Pon Purajatnika
 E-mail: Cinta.Bambu@gmail.com
 Network: http://www.facebook.com/KomunitasCintaBambu

Morisco Bamboo

Contact Person: Prof. Dr. Ir. Morisco
 E-mail: info@moriscobamboo.com
 Website: http://www.moriscobamboo.com/

Rumah Bambu Jatnika

Contact Person: Jatnika Nanggamiharja
 Address: Jl. Sarikaya-Durian Blok E4 (Rumah Bambu)
 Bumi Cibinong Endah Kel. Sukahati, Cibinong - Bogor
 Phone: 021 8760 374 Mobile: 0815 1450 2627
 E-mail: jatnikakidangkencana@gmail.com
 Website: http://www.rumahbambujatnika.com

Rumpun Bambu Kreasi, PT

Address: Jl. Raya Raja Polah No. 233
 Tasikmalaya - Jawa Barat
 Phone: +6226 5420471

Sahabat Bambu (SaBa)

Contact Person: Lukman Hakim
 Address: Jl. Raya Cangkring Km. 3.3 Balong Bayan,
 Purwomartani, Kalasan - Yogyakarta.
 Phone: +62-81392200266.
 E-mail: info@sahabatbambu.com or tlhakim@gmail.com
 Website: http://en.sahabatbambu.com/

Sanggar Bambu

Address: Jl. Imam Bonjol No. 262, Denpasar - Bali
 Phone: +62-361- 484358

Saung Angklung Udjo

Address: Jln. Padasuka 118, Bandung 40192 Jawa Barat
 Phone: +6222 7271714, +6222 7101736
 Fax: +6222 7201587
 E-mail: info@angklung-udjo.co.id
 Facebook: Saung Angklung Udjo
 Twitter: @angklungudjo

Sinar Bambu Mas, PT

Address: Jl. Raya Buyut Udik Km. 4, Kec. Gunung Sugih,
 Kabupaten Lampung Tengah - Lampung
 Phone: +6272 1486732

{ | Mandasari }

100% Indonesia



Quick Bites

Lumpia Semarang

Tasty Bamboo Shoots Spring Rolls

Judging from its original form and shape, it may be difficult to imagine bamboos as edible. However, in Semarang, with a touch of creativity, bamboo shoots have long become one of the prerequisite ingredients for a mouth-watering delicacy called “lumpia”.

Indeed, a visit to Semarang will not be complete without tasting this classic one-of-a-kind spring rolls. It is no wonder that you can easily find lumpias in many parts of Semarang at any given time, be it at the roadside stalls or at a more fancy establishment like the restaurants or malls.



The Origins of Lumpia Semarang

Many people believe that the term “lumpia” in Indonesian language actually stemmed from the word “lunpia” in the Hokien Dialect of Chinese. The usage of the word lumpia in itself is no coincidence considering that since the old days, there had been a significant number of Chinese immigrants who took residence in Semarang.



Do You Know?

Lumpia and Bamboo Trivia
Besides using bamboo shoot as its fillings, if bought in large quantity, the lumpias in Semarang are normally packaged in a box made of plaid bamboo to retain its fresh flavor.

Indeed, there have been many stories about the genesis of lumpia semarang. In one version of these stories, lumpia semarang was actually invented by a Chinese man, named Tjoa Thay Yoe, who got engaged with a Javanese woman, named Wasih. Prior to their engagement, both of them had each sold spring rolls for a living.

After tying the knot, the couple began to experiment with their recipes, and successfully created a fusion of Indonesian-Chinese flavor of lumpia. This recipe was later passed down to their children who eventually ventured into selling these variant of spring rolls in Semarang, which was famously known later as Lumpia Semarang.

The Variants of Lumpia Semarang

The Lumpia Semarang, are available in both fried and non-fried variants. The non-fried variants, famously referred to as “wet” spring rolls, can actually be directly consumed without frying since the fillings were already cooked.



Regardless of its variants, the lumpias have the same fillings, which consist of a mixture of sautéed chopped bamboo shoots, eggs with minced chicken or prawn, all of which was later added with special seasoning.

To complete its flavor, the lumpias are usually served with fresh baby shallots or leeks in special gooey sauce made of sweet taucu (fermented soy).

If spicy is not a problem for you, you can also add sweet and spicy chili sauce (famously known as “sambals”) or fresh bird’s eye chili pepper to your lumpias.

Lumpia Semarang Hot Spots

Although lumpia sellers continue to mushroom in Semarang from time to time, there are still some of the old-fashioned lumpia stalls that continue to maintain their reputation as the go to place when the crave for lumpias arise.

Some of these loyal customers make their preferences on these places due to their childhood memories associated with these places or simply because of preference in tastes.



So, next time you visit Semarang, you know that you can’t pass the opportunity to visit these places to taste their famous lumpias!

{ N D Ratnasari }



The following places are some of the hot spots to grab delicious lumpia Semarang:

- Lumpia Mataram**, Jl. MT Haryono Semarang.
- Lumpia Mbak Liem**, Jl. Pemuda Semarang.
- Lumpia Gang Pinggir**, Jl. Gang Pinggir Semarang.
- Lumpia Express**, Jl. Gajah Mada Semarang.

Sources: • <http://semarang.yogyes.com/id/see-and-do/traditional-culinary/lumpia-gang-lombok/> • <http://www.diahdidi.com/2013/10/lumpia-semarang-dan-sejarahny.html> • <http://www.banyumurti.net/2011/05/kuliner-semarang-lumpia-mbak-liem.html> • http://id.wikipedia.org/wiki/Lumpia_Semarang • <http://thedaityroar.com/food/lumpia-semarang-indonesia/> • <http://www.tpwisatamurah.com/2014/05/inilah-4-lumpia-anak-yang-terkenal-di.html>



Dusun Bambu

A Unique Bamboo Resort in West Java

Have you ever imagined a well-designed hotel and an exotic cottage constructed entirely from bamboo? Dusun Bambu, located in the Burangrang foothills is impressively designed with the contemporary architecture and classical interior design from bamboo. The name of Dusun Bambu (literally means Bamboo Villages) was chosen to describe how rich and potential Indonesia is for its bamboo. Indonesia has more than 130 species variety of Bamboo and Dusun Bambu is one of the largest bamboo conservation centers in Indonesia that has 50 variety of bamboo in its collection. Dusun Bambu has manifested the philosophy of "Harmonization the knowledge of Sundanese traditional culture in one integrated area". This philosophy is translated through the construction of Dusun Bambu, which is designed with 6E's concept namely Ecology, Economy, Education, Ethnology, Esthetics and Ethics. So, it is not surprising that Dusun Bambu (Bamboo Village) in Bandung has become the talk in the Social Media such as Facebook, Path, and Instagram.

Harmonization of the knowledge of Sundanese traditional culture in one integrated area



Ecology - Having a picnic, preserving nature.

Since Indonesia has more than 130 variety of Bamboo, Dusun Bambu intends to become the largest bamboo conservation center in the country. At the moment, there are more than fifty species of bamboo planted in Dusun Bambu. The management will ask the visitors to plant bamboo seeds and to be recorded in the database. In the future, the visitors will be informed of the progress of their planted bamboo trees.

In 2009, the construction process started with the planting of a lot of trees in the 15-hectare lands used to be a sweet potatoes farm area. To improve the land fertility, the new irrigation system was fixed into the traditional Sundanese farming water system.



Economy - Dusun Bambu gives a value-added to the local economy.

The architect of Dusun Bambu adopts the green architecture and green economy which advocate the concept of reduce, reuse and recycle. More than fifty percent of used materials were used to construct the building. From 15 ha, only 5100 m² or 3.6 percent of the area was utilized to build the cottage, villa, restaurant, café, playground and camping ground.

Since its soft opening in January 2014, the Park has already attracted many visitors, most of them coming from outside of the city. Not only has this site increased economic potentials for the locals, but Dusun Bambu aimed to become the landmark of Indonesia's ecotourism. As stated by the Governor of West Java, Ahmad Heryawan, Dusun Bambu has complied with all the procedures required to build the site in the conservation area like in the North Bandung area.



Aesthetics - Artistic buildings and Installations

For those who want to visit the site, it is strongly advisable to come on weekdays as the Park and the traffic will be very crowded on weekends. From the parking area, there is a free shuttle service to bring the visitors to the reception area. On crowded weekends, you can skip this service by taking a five-minute short walk to the lobby and the main area: Pasar Khatulistiwa and Burangrang Café.

This will not only save up your time but also give a pleasant experience to see a variety of Bamboo plants during the walk through the bamboo bridge. Before reaching the lobby, you can take a picture in front of a giant artistic bamboo monument. Bamboo monument is a sophisticated installation representing how the management pays attention to the details to spoil the customers.



Ethnology - Preserving Sundanese Culture

To welcome the visitors, the teenagers dressed in black traditional Sundanese costumes, plays the bamboo musical instruments in the lobby. The alluring and soft music is a perfect combination with the view of tall green trees, bamboo huts, Sundanese traditional houses, ducks wandering around, a pond with a bamboo tap and farmers working in the rice fields.

The visitors can also enjoy some free and fun family activities such as bamboo archery, the traditional games of tandem bakiak (sandals on logs), playing kites, building bamboo train track, and egrang (walking on a pair of tall bamboo sticks) in Tegal Paulinan. However, if you visit the park on weekdays, there will be no fun family activities and live music performance as it is only available on Saturday and Sunday.



Here are some places that you can explore in Dusun Bambu:



Pasar Khatulistiwa

Feeling hungry after enjoying the spectacular view and doing all fun activities, you can grab some typical Sundanese snacks, healthy fruits and fresh vegetables, others organic agriculture products and Bandung famous street foods at Pasar Khatulistiwa. You also can buy some souvenirs crafted by the local community and specials products of gifts from Burangrang Mountain society which has mutual partnership with Dusun Bambu. The children can play a mini-becak (three-wheel-cycle) in the backyard of Pasar Khatulistiwa. Thus, the parents can enjoy their lunch in the food court while the kids play in the nature-themed playground. Do not forget to bring cash to make purchases in Pasar Khatulistiwa, as the visitors need



to buy vouchers first before shopping in this farmer market. Do not worry about the extra tokens you do not use, you can refund them at the end of your trip.



Burangrang Café

Burangrang Café, which is located in the higher altitude will give the visitors a breathtaking landscape view of Burangrang Hills. The word "burangrang" literally means hills of branches, represents the legend of Sangkuriang who used



branches to stack up into Tangkuban Perahu Mountain. The visitors can enjoy the beautiful sunset over the man-made lake named Sampan Sangkuriang while having a romantic dinner in the Café. You can try its delicious culinary specialties such as nasi timbel Burangrang, Ayam Bakar Bambu Betutu and others traditional Indonesian dishes.



Lutung Kasarung

Lutung Kasarung is a well-known Sundanese folktale which tells a love story of Lutung (means monkey) and Princess Purbasari. Lutung Kasarung Restaurant offers the visitors unique sensation to dine in a giant bird nest at the top of the tree. The menu is ranging from the international meal, Indonesian meal to the traditional Sundanese typical food. The architecture concept is artistically designed like a bird cage shape hovering high in the tree. This concept is very interesting as it is constructed from the woven branches and the interior design is very unique as well.



Saung Purbasari

Purbasari is a beautiful Princess who has a sincere love for a magical black monkey (Lutung Kasarung). The tale is similar to the European folktale "Beauty and the Beast". Saung Purbasari offers the dining experience with the lesehan (traditional) style in the bamboo restaurant. The visitors can enjoy the taste of Sundanese food in the different theme and romantic shades of each gazebo. The menu can be ordered from Burangrang Café.



Kampung Layung

Kampung Layung Villas offers a private villa that respects the traditional Sundanese culture. There are two different types of villa: one bedroom villas and two bedroom villas. You can enjoy family vacation, honeymoon or company gatherings in these villas with complete amenities including 24 hours butler service, in room kitchen equipment and BBQ pit. In the morning, you can take workout in the middle of the mountains, go jogging or cycling along the track.



At the centre of the lake, there is an amphitheater for the art and cultural performances. The visitors can also ride a canoe (sampan) to reach Saung Purbasari which is more private, tranquil and suitable for family to enjoy the dine in.

Glamping' or Glamorous Camping

For those who want to experience camping in on Burangrang foothills, you can try the Eagle Camping Ground. The campsite offers an exclusive and glamorous tent with comfortable bed and its own bathroom and BBQ facility. So you do not need to be "back to nature" if you feel the urge to go to the toilet.

How to get there

You can drive a car from Bandung to Lembang through Jalan Setiabudi until Terminal Ledeng. Turn left to Jalan Sersan Bajuri and drive straight along the way approximately 11 km until Jalan Kolonel Masturi. It passes through Vila Istana Bunga, University of Advent and Curug Cimahi. 300 m from Curug Cimahi there will be a gate on your right side called KOMANDO. Approximately 500 m from this gate, finally you will arrive at Dusun Bambu. Don't worry about getting lost because there are Dusun Bambu road signs to follow from Jalan Sersan Bajuri.

You can take any public transportation (a common cabs called "Angkot") which is heading to Ledeng. Then, take a five-minute walk to Jalan Sersan Bajuri. There will be another angkot heading to Terminal Parongpong and after that, you can take another angkot route Padalarang-Parongpong. If you cannot bear the long wait for the angkot to go, just rent a motor-taxi until Dusun Bambu gate.

To describe Dusun Bambu in four sentences: Good Scenery. Good Atmosphere. Good Cuisine. Good Architecture. Happy holiday.

{ | Mandasari }

Leisure



Experience Paradise: Ora Beach

Indonesia is made up of about more than 17,000 islands and is famous for her natural beauty, even if you visit one each day it would take you 43 years. Crazy, I know. But exploration is a must in this country of mine, so we decided to explore Ora Beach on Seram Island, in Maluku Province, famous for its underwater landscapes and clear crystal waters.

To tell you the truth, I was prepared to be disappointed with the place we were going to. The pictures were too good to be true, pristine water, under water wonders and unbelievable landscape. But boy, I was baffled by what was to become one of the most spectacular views I have ever seen, a little piece of heaven.

Ora Beach offers a unique experience, humble but spectacular accommodations, crystal clear waters, astounding underwater views, mouth-watering seafood as well as breathtaking landscapes.



Transportation

The journey to Ora Beach is a long but worthwhile voyage. We started our trip from Jakarta to take a 4 hour flight to Ambon, where we landed in Pattimura International Airport. It took another 2 hours drive to get us to the Port of Tulehu.

From Port of Tulehu, you have to take a ferry to arrive on the island of Seram, which takes approximately 2 hours. During the trip you are able to walk around and enjoy the great view on the upper deck. It's crowded but there is no excuse not to enjoy or capture the mesmerizing landscape.

We took cars and drove for another another 2 hours to the small village of Saleman. During our journey, we passed one of the most breath taking protected forests of Seram Island, the Manusela National Park. Manusela National Park was established in 1997, to protect an area of 1,890 km², representing 11% of the land area of Seram Island. It is home to 118 species of bird and 38 species of mammals.

The winding mountainous roads showed us the beauty of the Maluku Islands. Deep within the forest, the indigenous people of the island still live and cultivate in the forest. The native indigenous people are called the Huahulu tribe, who can be identified with red bandana on their heads.

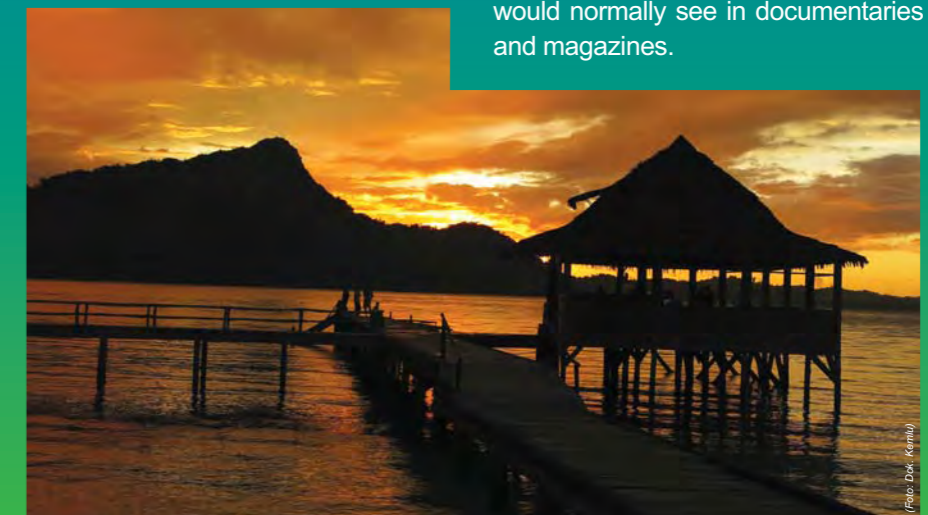
Finally we arrived in the Village of Saleman, where we were greeted by friendly village people, who were eager to welcome and meet us. At a distance we could finally see the Ora Beach Eco-Resort, after unloading and loading the luggage of our group we were off to the resort. It took us 20 minutes by speed boat to get to the beautiful resort.



Accommodation

When we arrived, we were not disappointed. There is only one resort there, named Ora Beach Eco - Resort. This resort has 6 floating cottages and 8 beach front rooms all with traditional straw roofs. From the cottages you are able to enjoy and to view the beautiful colors of coral as well as the many sea creatures right from the deck of the cottage. It is a perfect place to relax and forget the stress of the big city.

At night, visitors can enjoy the sound of waves breaking and spectacular clear skies while observing a million stars. In the morning, we are greeted with the fresh morning air, an array of morning colors and the pristine crystal clear waters of Ora.



Activities

Ora Beach is quite remote, so cellular as well as television signal is scarce. It is the perfect place to escape the hustle and bustle of your normal life. Even with limited access there is plethora of things to do.

From the white sandy beaches to the crystal clear of the seas of Seram Island you are surrounded by natural beauty and an eco wonderland. The reefs under the sea vary from less than 2 to 8 meters and deeper and have an abundance of colorful tropical fish. The waters is home is home to multiple ecosystems, such as banks full of coral and seaweed making it the ideal habitat for marine life such as turtles, tropical fish of all sizes, sharks and many more amazing creatures that you would normally see in documentaries and magazines.



You do not have to be a snorkeling or diving pro to experience the wonders of Seram Island. The tides are not strong and you have experienced guides that will assist you throughout the day.

Another activity is exploring the Manusela National Park, which is in the backyard of the Ora Beach Eco-Resort. Here you will find breathtaking landscapes and discover the vast array of flora by hiking in the jungles and mountains of the park. In addition to hiking, the park also offers spectacular bird watching, where there are 117 species of bird, 14 of which are endemic. If you are lucky, you will be able to see a thousand of Lusiala birds flying from the caves as the day turns into dusk.

If you are lucky you will be able to see crocodile. Sago is a starch extracted in the spongy centre, or pith, of tropical palm stems. It is a traditional staple food for the people of Maluku. Sago is extracted by splitting the stem of the palm lengthwise and removing the pith which is then crushed and kneaded to release the starch before being washed and strained to extract the starch from the fibrous residue. This whole process is done on the riverbanks by 2 men from the local village.

Culinary Experience

Travelling opens up an entirely different world including the world of culinary delights, and the Maluku Islands is not an exception. We tried a variety of fish, seafood and crustacean in many different styles of cooking from grilled, fried, steamed to curried - all unique and equally delicious.

Of course the most unique dinner is the traditional staple food the Papeda. Papeda is the sago porridge eaten with fish curry. It was an interesting texture to eat, like thick glue and definitely an acquired taste to say the least but definitely a must try. The dinner was washed down with refreshing local fruit juice called "Gandaria" and it wouldn't be complete without the dessert fit for a king, the king of fruits the "Durian".

This trip was amazing, I was amazed by the beautiful landscape, the majestic magical world beneath the waves, the delicious food and the kind and generous people who are willing to share their world with us.

It is a rule of thumb that if a place is hard to get to, it is usually worth the effort. This hidden paradise is well worth the effort and those who are lucky enough to see it, is truly blessed.

{ E Rheindrayani }

Kakaban Tour has been around since 2009. They specialize in organizing tours to the eastern part of Indonesia. Kakaban trips offer regular packages as well as customized packages for family, honeymoon as well as corporate excursions to exotic places such as Derawan, Wakatobi, Raja Ampat, Togean, Bunaken, Lembah, Cendrawasih Bay, Komodo, Flores, and Alor - just to name a few. Kakaban trips at the same time assist and educate communities where they visit the importance of looking after their environment and sustainable tourism.

For more information visit <http://kakaban.co.id/> • Facebook: Kakaban Trip • Instagram: kakabantrip • Twitter: @KakabanTrip • E-mail: info@kakabantrip.com • Telp: +62-21-94274333, +62 813189904333

Reader's Note

"The Edition has got positive responses from some entrepreneurs in Vancouver, the coffee capital in Canada, and it certainly gives a glimpse of Indonesian coffee business to the international market."

– Arief –

"With full color pages and informative articles, very attractive... It's a good reading for those who wants to discover more about Indonesia... It "invites" you.."

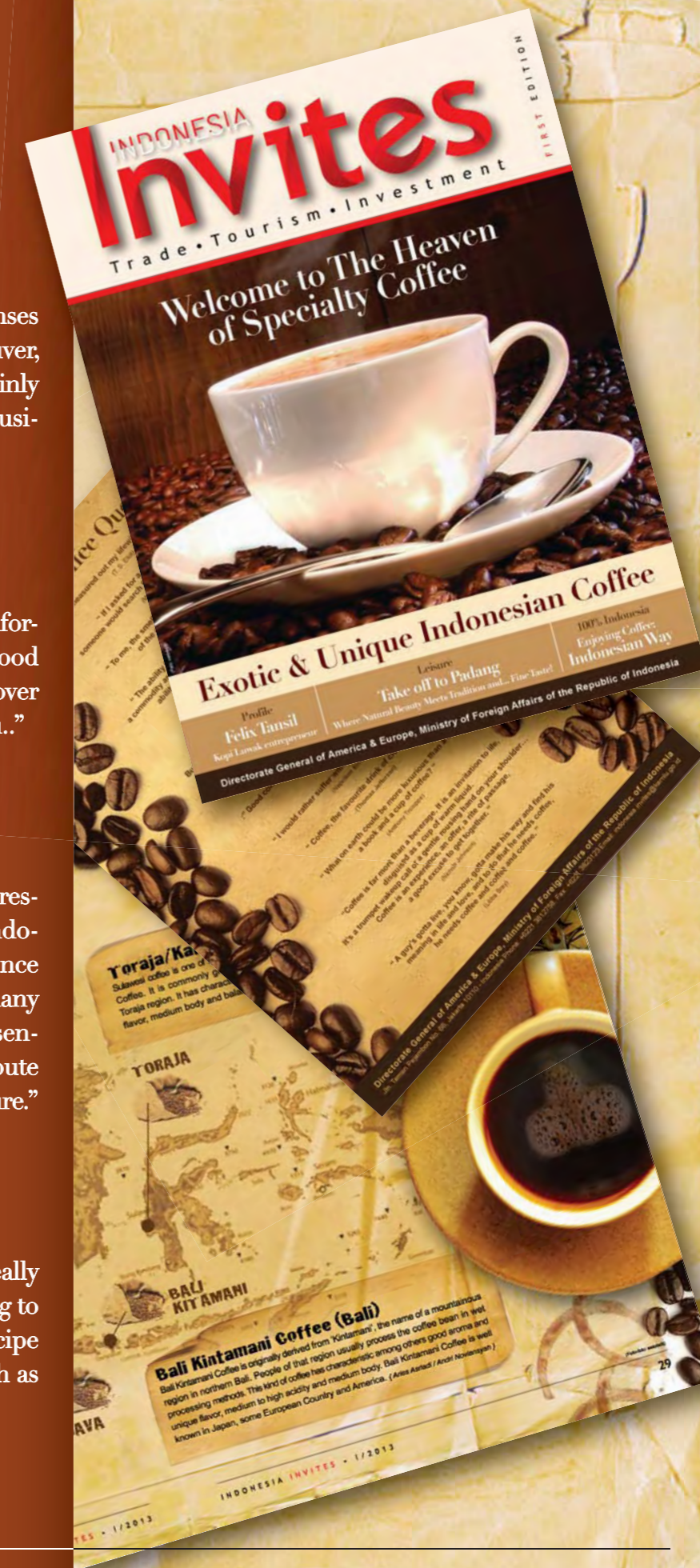
– Restu –

"Invites Coffee Edition is a very interesting magazine focusing on one of Indonesia's main export commodities. Since the magazines are distributed in many countries through Indonesian Representative Offices, I wish it would contribute the boosting of coffee export in the future."

– Rifana –

"The pics in the Quick Bites are really tempting. But it will be more interesting to also put an article of culinary or recipe which match to the topics (coffee), such as coffee tart, pudding, cake, or others."

– Ira –



Did You Know?

Bamboos are not trees but they are large grasses.

(source: <http://www.inbar.int>)

The giant bamboo (*Dendrocalamus giganteus*) of tropical south-east Asia can reach as high as 50 meter.

(source: <http://www.guinnessworldrecords.com>)

A house made of bamboo have been known to withstand 9.0 magnitude quakes.

(source: <http://www.calibamboo.com>)

There are 1,500 different species of bamboo in the world.

(source: <http://www.bbc.co.uk>)

Bamboo grows fast. Some species of bamboo are clocked at growing over 90 cm in height in a day. That is over 3.8 cm in one hour!

(source: <http://www.bamboobotanicals.ca>)

Alexander Graham Bell's first phonograph needle was made of bamboo.

(source: <http://bamboocentral.org>)

Bamboo is deodorizing. Bamboo charcoal is extremely porous and can absorb large quantities of odor causing bacteria and filter harmful chemicals in water.

(source: <http://www.bamboobotanicals.ca>)

Bamboo is a healthy food source. Bamboo shoots have been a staple food source for thousands of years, especially in the Asian culture.

(source: <http://www.bamboobotanicals.ca>)

{ N Hardiani }