

Today, I am honored to be granted the title of Professor Emeritus of Udayana University in the presence of President Bakta, Vice-President Wirawan, and other esteemed people.

I would like to express my sincere gratitude to all of you.

Udayana University and Yamaguchi University began interacting in February 2003 when the Center for Satellite Remote Sensing and Ocean Sciences was established at Udayana University. The objective of the Center was to provide and promote research and education regarding ocean and remote sensing. Since its establishment, both universities have actively collaborated in educating students at the master's level in three ways: establishing joint master's courses, offering a double degree program, and conducting joint research. As a result, in 2007 an academic exchange agreement between Udayana University and the Graduate School of Science and Engineering at Yamaguchi University was concluded. In 2010, the agreement was upgraded to university level and the Yamaguchi University International Cooperation Office was established at Udayana University. This act formalized and enriched the exchange between the two universities. (slide 1)

In 2012, Yamaguchi University began receiving funds from the Ministry of Education, Culture, Sports, Science and Technology, Japan, for the Project for Promotion of Global Human Resource Development. This project aims to overcome the Japanese younger generation's "inward tendency" and to foster human resources who can meet challenges and succeed in a global arena; therefore, there is a need to send a larger number of students overseas. Further, we promote the internationalization of staff members at our university. Through this project, we hope to stimulate more active exchange between Udayana University and Yamaguchi University and to strengthen the relations between the two institutions.

I am also considering establishing an alumni association all over the world, including Indonesia. This network will be very effective in accumulating and disseminating information. With the PR of the alumni association in place, I hope

to see more and more international students from Udayana University attending Yamaguchi University in the near future.

I myself have had the privilege of making contribution to the environmental reclamation of Mount Batur and the devastated land around the mountain through the ODA project. (slide 2)

There are still widespread lava flows around the mountain following massive eruptions there in 1917 and 1926. Furthermore, the presence of eroded scoria and soil conditions unfriendly to plant growth have accelerated the devastation.(slide 3)

Also, the potential for disaster has been increasing due to deforestation caused by the rapid increase of population and land use.

Thus, the Marutaku Sheet, which was developed by Takino Filter Corporation and myself, was used to investigate the possibility of future environmental reclamation by natural vegetation. The sheet is highly effective in preventing erosion, muddy water, and blown sand. It also serves for the longer-term conservation of soil, fertilization of soil, and settlement of naturally flown seeds.(slide 4)

There is an aggravated problem of erosion even in some areas with forestation. This has a negative impact on plant growth. By laying the sheet, the planted trees are able to establish secure roots. Furthermore, the water and humidity effect of the sheet allows planted trees to grow in a stable environment.

The result of the investigation was positive.

As for the effect of the sheet on the prevention of erosion, we did not find sediment discharge in the area protected by the sheet, even though this occurred through the rainy season. We therefore concluded that the sheet has a modest effect.

We also investigated the budding condition three months after laying the sheet.(slide 5)

This period saw the beginning of the rainy season and consequently we experienced heavy rain. The growth of Lamtoro Gung was prominent, and the growth of Nangka and Jati was within the same range. For Lamtoro Gung, we concluded that the temperature and rainfall recorded were adequate for budding. We plan to take a wait-and-see approach to the process of growth and the distribution of vegetation. (slide 6, 7)

The function of the sheet is excellent in terms of disaster prevention, environment conservation, and environment reclamation. It has been proven to perform relatively well under the unique climate and soil conditions of Indonesia.

For the next phase, we are considering constructing a plant in Bali to produce the sheet at a lower cost and laying the sheets on the devastated land, which we believe will lead to a more widespread use of these sheets.

Also important is the plan to educate and train students, community people, and young people on how to lay the sheet and arrange the seed bags with regard to appropriate spaces, safe work procedures, and management and maintenance after construction.

Further, we are planning to enlighten the community people and citizens in Denpasar and Kintamani regarding disaster prevention and environment conservation. We will prepare educational tools, conduct regular seminars and workshops, and act as press-agents through the community media and IT.

I strongly hope to contribute to the establishment of a sustainable society in Indonesia.

Today, I am the recipient of such an honor because of my contribution to environment reclamation. However, my contribution was only possible with the assistance of staff members at Udayana University, the Forestry Research and Development Agency in Indonesia, Takino Filter, and many other people who were involved. I would like to express my appreciation to all these people.

This honor will be an incentive to young researchers and graduate students who are engaged in environment conservation research, environment reclamation research, and vegetation research. Considering this honor as encouragement, I too will step up my efforts and be further committed to improving the global environment.

Thank you.

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February 2011
International Conference on Environment in Udayana University



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March 2012 (Preliminary Experiment)
Marutaku sheet and bag
around the Batur mountain

Budding Condition five month after
laying the sheet



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Photo A: Marutaku sheet

Photo B: Mount Batur and the devastated land around the mountain



Work for laying the sheet(December 11, 2012)

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Photo D: A district where the sheet was laid

Photo E: B district where the sheet was laid


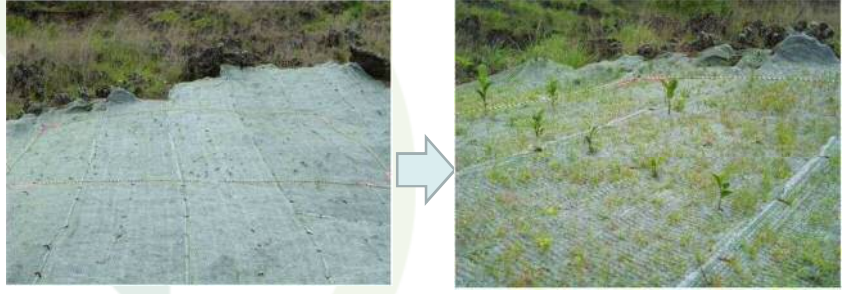


Photo F: Inspection of the pilot site(December 14, 2012)
From the left: Professor Merit (Udayana University), President Marumoto (Yamaguchi University),
President Yamamoto (Takino Filter), and Vice-President Wirawan (Udayana University)

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**One month after laying the sheet
(January 2013)**

**Three months after laying the sheet
(March 2013)**


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**Photo G: Budding Condition one
month after laying the
sheet(January 2013)**



**Photo H: Budding Condition
three months after laying the
sheet(March 2013)**



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Right after laying the sheet
(December 2012)



Four months after laying the sheet
(April 2013)



Four months after laying the sheet
(April 2013)



Four months after laying the sheet ⁷
(April 2013)