



**ENVIRONMENTAL BAMBOO FOUNDATION**

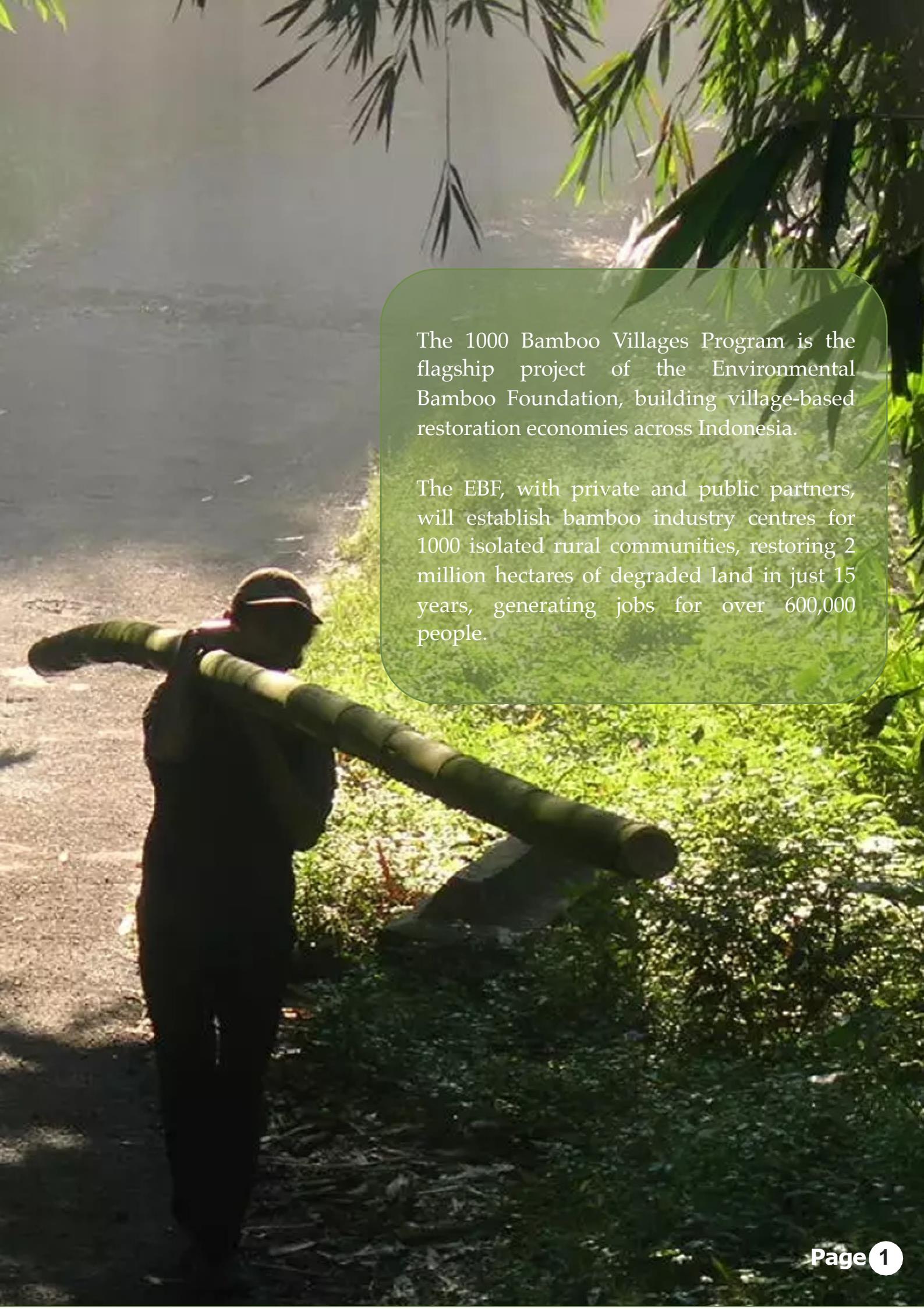
**YAYASAN BAMBULESTARI**

# 1000 BAMBOO VILLAGES

**Empowering village communities across Indonesia to support themselves financially and restore their land with bamboo forests**



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The 1000 Bamboo Villages Program is the flagship project of the Environmental Bamboo Foundation, building village-based restoration economies across Indonesia.

The EBF, with private and public partners, will establish bamboo industry centres for 1000 isolated rural communities, restoring 2 million hectares of degraded land in just 15 years, generating jobs for over 600,000 people.



## INTRODUCTION

The Environmental Bamboo Foundation (EBF) is focusing on implementing its flagship project, the 1,000 Bamboo Villages Program. Our vision is to establish 'restoration economies' in 1,000 communities all over Indonesia, using bamboo as a keystone species for conservation and sustainable livelihood.

We will be working hand-in-hand with village elders and government agents, to empower local people to work with nature, and not against it, using bamboo to stitch back together the canopy coverage and top soil of degraded land. Each village (with an average of 210 households) will be granted rights to be responsible for the restoration, maintenance, management and use of 2,000 hectares of government-owned, degraded forest land to be planted with bamboo. The EBF provides training, guidance and market access for the villagers in this program, guaranteeing a steady income and continuous source of a rapidly renewable building material.

Community-based bamboo industry, in partnership with the industrial sector, will be the catalyst to trigger long term business for farmers and turn the wheel of the local economy. The 1000 Villages Program will directly support almost 1,700,000 people, with an average of eight people per household. This village-based industrial approach will give a very solid foundation to stimulate regional and national economic growth.

Time frame to set up one bamboo village: 5-7 years

We will need:

1. A bamboo cocoon nursery and bamboo field school: USD\$20,000
2. To build the village factory and activate it: USD\$280,000

We are open to contribution and support from collaborating stakeholders, partners and donors to facilitate and implement this mechanism in 1,000 locations all over Indonesia.

# IMPLEMENTATION PHASES

## PHASE I



### Establishing Bamboo Cocoon Nursery:

Area: 10 ha / village

No. of bamboo plantlings: 70,000

Cost: 200 million IDR

### Conducting Bamboo Field School:

One bamboo village costs: 70 million IDR

**Total: 270 million IDR (US \$20,000)**

## Planting The Agroforestry System (bamboo)

Maintenance of young bamboo forest

Planting appropriate companion plants whilst waiting for first harvest (4-5 years)

Cost: zero. Cooperatives invest in their future for free ('Sweat Equity' investment)

## PHASE II



## PHASE III



### Building The Village Factory (to produce useable bamboo laminate planks)

and purchase machinery

Cost : US\$220,000

## Activating The Village Industry:

Machine trials

Sustainable Bamboo Forestry (SBF) system verification and activation.

Signing final off-take agreement with industrial buyer.

Cost : US\$10,000

## PHASE IV



## PHASE V



Monitoring the implementation of the SBF system.

Cost: covered by cash flow revenues

# LOCATIONS



“Bamboo village distribution in Indonesia: the vision of 1000 Bamboo Villages is to provide an opportunity to remote communities to develop a cost effective supply chain through increasing the level of production.”



“Bamboo is the best solution for deforestation and restoration of degraded land in Indonesia.”

**Linda Garland 1948-2017**





## THE 1000 BAMBOO VILLAGES PROGRAM



The 1000 Bamboo Villages Program is the most effective solution to restore degraded land and to meet the demand of the manufacturing industry by improving bamboo production and resource management. Many foresters consider bamboo to be 'the alternative to wood and the sustainable building material of the future'.

The core of our program is the empowerment of local farmers, who are trained and mobilized by the EBF to create their own Sustainable Bamboo Forest System, with lasting success. They are guided and helped to organize themselves in a formal legal body, such as a Cooperative or Farmers Group, so as to be able to enter the bamboo-based agro-industry market competitively.

During the facilitation and training process of the SBF System, bamboo farmers are directly involved in applying sustainable community-based agro-forestry techniques to achieve sufficient well-managed bamboo resources. This is an important phase of education and empowerment to ensure that they can meet the quality requirements of the potential buyers.



The incorporation of local wisdom in bamboo management and usage, merged with technological innovation and evolution, sees traditional knowledge and mastery applied in the 1000 Bamboo Villages Program.

The EBF's 1000 Villages Program will contribute 40% of the goal set by 40 nations, who pledged to achieve 5 million hectares of bamboo restoration by 2020.

# REINFORCEMENT OF THREE MAJOR COMPONENTS



## COMMUNITY REINFORCEMENT

The communities involved in this program organize themselves in formal, registered bamboo farmer groups or cooperatives. This process facilitates and strengthens their unity and puts them in a position to work with other stakeholders such as governments and manufacturing sectors. Until now, there have been almost no groups or cooperatives of bamboo farmers in Indonesia. Therefore, community empowerment is one of the central activities in the 1000 Bamboo Villages Program, to build strength, unity and pro-activism, and we achieve this through three enablers:

- Conducting participatory rural appraisal and assessment, as well as socio-economical and geographical surveying
- Building and running a bamboo field school in every village to train and promote 'the best practices and techniques of bamboo management, maintenance and processing'
- Facilitating the establishment of bamboo farmer groups/ cooperatives to be legal and operational



## FORESTRY REINFORCEMENT

The environmental benefits from the 1000 Bamboo Villages Program can be achieved by restoring land degraded as a result of land slides, erosion, floods, conversion to farming and housing, etc. Forestry reinforcement will be done independently by the well-trained, empowered bamboo farmer cooperatives, who are registered partners of the Environmental Bamboo Foundation.

Forestry reinforcement can be done by implementing the following enablers:

- Facilitating the community to start Bamboo Cocoon Nurseries (for one bamboo village there should be 70,000 plantlings of D. Asper (*Bambu Petung*) or any other species available locally).

These 70,000 plantlings will be planted in an area of 2000 hectares of degraded land belonging to the government with a clear permit and designation to the village. This large number of plantlings will ensure the ability of Bamboo Farmer Groups / Cooperatives to develop a sufficient and sustainable supply of bamboo resources to start cooperating with the manufacturing sector.

- Implementing the 12 phases of Community-Based Sustainable Bamboo Forest System and following its Standard Operating Procedure



03



## VILLAGE-BASED BAMBOO PRODUCTION REINFORCEMENT

One of the goals of the 1000 Bamboo Villages Program is to empower local communities economically, by creating a village-based restoration economy in Indonesia. This is achieved by implementing the effective and productive clump management and a bamboo processing system, making suitable materials for industry. Maintaining the high quality of the expanded bamboo resources will have impact on overall productivity of the villages. In turn, it will improve the quality and quantity of harvested bamboo. It is expected that these two impacts will then increase the income and profit of bamboo farmers and manufacturers, while giving more benefits to the environment. Consistent quality and supply of bamboo will be an ideal factor to be maintained by the bamboo farmer groups and cooperatives for stable cooperation with the purchaser. These farmers can add value to their bamboo by applying the following enablers:

1. Installing a crushing machine to produce semi-processed bamboo material for industry (*pelupuh*)
2. Receiving training in how to use this machine effectively and efficiently
3. Installing a High-Pressure Smoke Preservation System, to preserve the bamboo and reach maximum endurance. This installation should be complemented by the training in the usage of the system to get most benefit out of it.



These three reinforcements will make the Bamboo Farmer Groups /Cooperatives more reliable, and have a stronger position in cooperating with purchasers of bamboo. Both the farmers and the manufacturers will get maximum benefit from their cooperation. Bamboo farmers will get a better price for their semi-processed bamboo, while the manufacturers will benefit from a shorter chain of production with lower risk.

# IMPLEMENTATION MECHANISM

## FORMATION OF BAMBOO FARMERS GROUPS



Number of members : 30 bamboo farmer families. Total responsibility : 1000 clumps petung eqv. 3000 clumps apus eqv. +300 ha / cooperative supply responsibility : 3 tons / day

## BAMBOO FIELD SCHOOL (BAMBOO FS)



Learning the bamboo based agroforestry system.

Duration : 8 months

## COCOON SEEDLINGS CULTIVATION



Area needed : 10 ha Bamboo needed : 70,000 plantlings duration: 3 years to mini clump establishment ready for transplant.

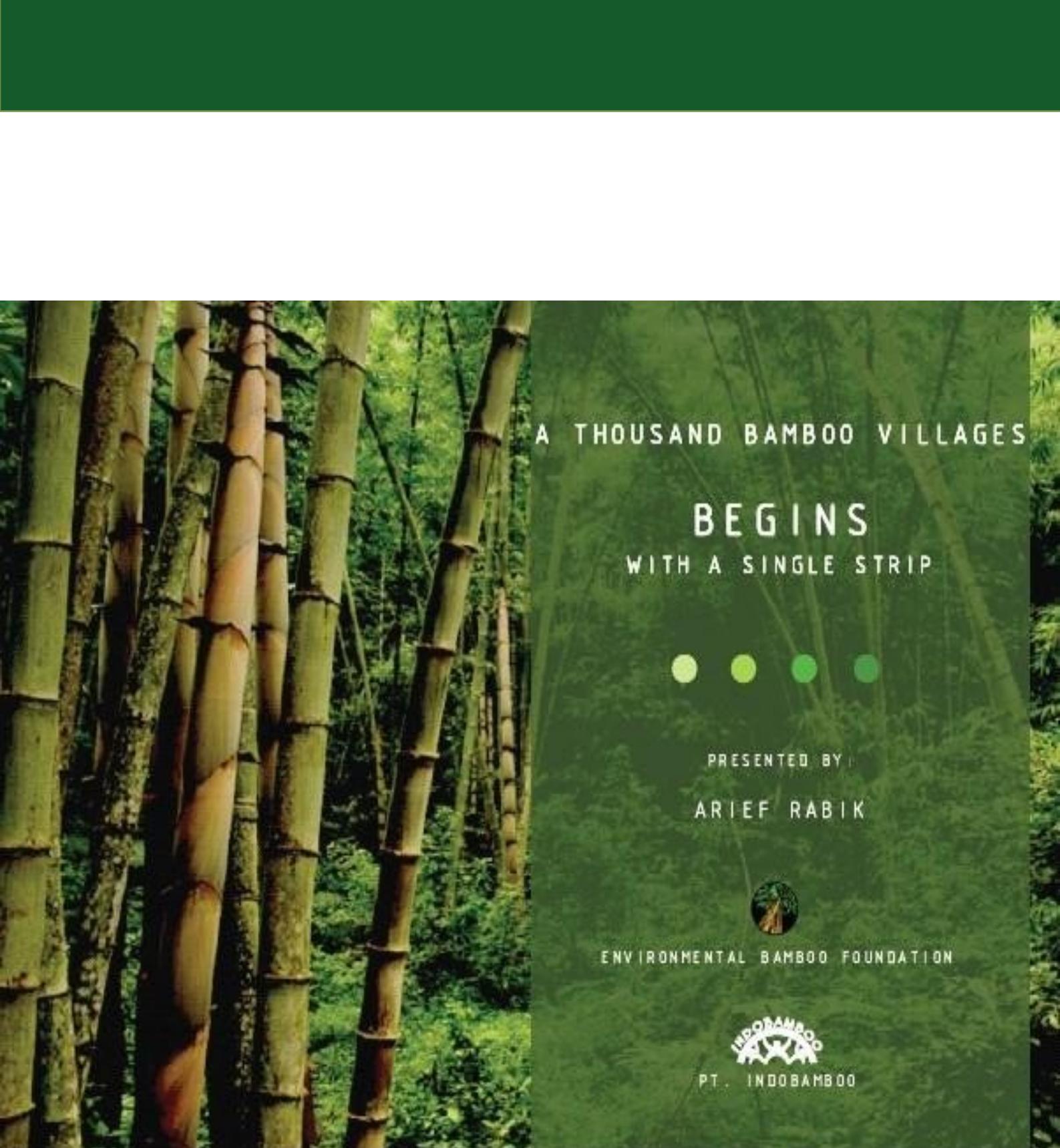
## SUSTAINABLE HARVEST



## INITIAL PROCESS OF INDUSTRIAL BASIC MATERIAL PROCESSING



Processing of bamboo into semi-processed industrial basic material: bamboo strips, or crushed bamboo mats (*pelupuh*)



A THOUSAND BAMBOO VILLAGES  
BEGINS  
WITH A SINGLE STRIP

● ● ● ●

PRESENTED BY

ARIEF RABIK



ENVIRONMENTAL BAMBOO FOUNDATION



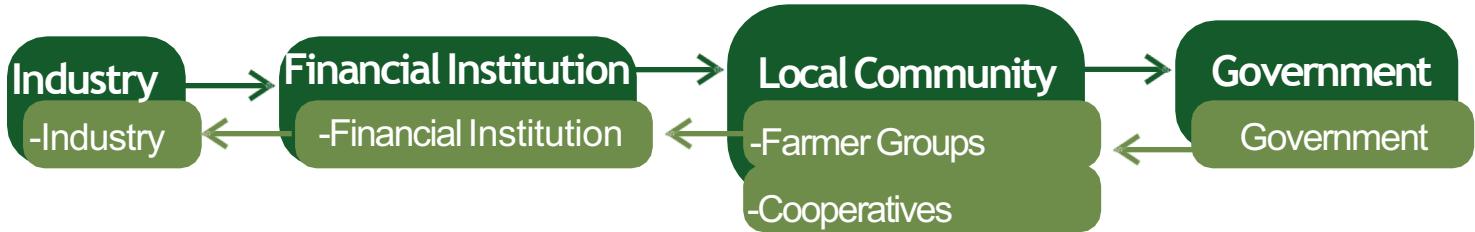
PT. INDOBAMBOO



# APPROACH AND STRATEGY



The 1000 Bamboo Villages Program is a groundbreaking innovation from the Environmental Bamboo Foundation to realize the empowerment of a village-based restoration economy in Indonesia. Its unique approach and strategy ensures that the objectives of this program are achieved with the right standard and methodology.



The strategy of the Environmental Bamboo Foundation is to facilitate the empowerment of the communities to be able to cooperate with the manufacturing sector. In this strategy, the approach begins with the initiative of the manufacturing sector in collaboration with financial institutions to facilitate and encourage the community, i.e. local farmers, to participate in the program. These two institutions play the role as the pulling factors to attract the communities to join in the program. As farmer organizations (in form of groups or cooperatives) are established, they are then facilitated to approach local and the central governments to participate in and support this program. It is expected that the government will facilitate the stakeholders with laws and regulations to form the legal base, reference and framework for legal cooperation. It is also expected that the government will facilitate the provision of adequate facilities and infrastructure, so that the cooperation of the stakeholders involved can run smoothly.

The legally operational farmer groups or cooperatives are supported in the creation and development of clear business plans, allowing them to access financial support in the form of loans, and be able to cooperate with the manufacturers from a stronger position. Under this scheme, cooperation between bamboo farmers and the manufacturing sector will last longer, and be more mutually beneficial.

# STAKE HOLDERS (ROLE, COMMITMENT AND NEGOTIATION POSITION)

## GOVERNMENT



1. Facilitate funding of Phase 1
2. Creating legal framework
3. Supporting basic infrastructure (road, electricity, etc.)
4. Empowerment through tax subsidies
5. Confirming human resource needs
6. Networking participation of local industrial players
7. Sustainable development

1. Creating local bamboo culture
2. Confirming job opportunities
3. Sustainable forestry management
4. Becoming a reliable supplier
5. Engaging government support in Phase 1
6. Embracing technical support and assistance
7. Understanding microfinance

## COMMUNITY



## MICROFINANCE (MF)



1. Key to funding of Phase 2 of 1000 Bamboo Villages Program
2. Creating appropriate local forestry system
3. Giving micro credit loan to local cooperatives
4. Enticing government participation
5. Creating clear frameworks for cooperative business process
6. Asset as collateral
7. Contract on absorption or raw material and community work force

1. Committing to industrial investment
2. Signing long term supply contracts with bamboo village cooperatives
3. Employing local and experienced human resources
4. Pioneering a locally appropriate industrial paradigm
5. Setting a “fair value chain” that plans for a development process of more than 50 years
6. Investing in government infrastructures

## INDUSTRIAL PARTNER





## Why 1000 BAMBOO VILLAGES ?

### Why EBF?

The Environmental Bamboo Foundation (EBF) has gathered knowledge and experience from its activities for over thirty years, in developing the Community-Based Bamboo Agro-Forestry System. Through this long learning process, the 1000 Bamboo Village Program finally took shape as a result of the evolution of knowledge and practice in facilitating community empowerment. Participating in this process as an initiator, facilitator, partner and learner, EBF found that there is a key role to be played in the successful implementation of the 1000 Bamboo Villages Program, namely as a *catalyst collaborator*.

As a catalyst and one of the initiators of the 1000 Bamboo Villages Program, you can work hand-in-hand with EBF to pioneer the paradigm shift in sustainable land restoration, sustainable Community-Based Bamboo Forestry, community empowerment through restoration economy, and the use of bamboo as an alternative, sustainable timber to meet the need of bamboo-based manufactures. The Sustainable Bamboo Forest System (*SBF System*) in the 1000 Bamboo Villages Program is a system designed to accelerate the process of the implementation of this program while giving directions and guidance in good standard practices and management of bamboo resources. In this movement, EBF bridges the interests of all parties involved, with a clear, transparent and accountable management system.

The twelve phases of SBF System and five enablers of the 1000 Bamboo Villages Program are EBFs innovations, based on scientific research and experience for over 30 years. The stages of the program are clearly defined, directed, measured, systemized and presented in simple language so that it is easily understood by all stakeholders. All of these efforts are based on a clear vision, mission and objectives for the successful implementation of the 1000 Bamboo Villages Program in Indonesia towards a strong and resilient Village-Based Bamboo Industry for the prosperity of local communities and the country's ecology.

# TIME LINE

International Bamboo  
Congress IV  
(Ubud, Bali)

1995

National Strategy of  
Bamboo Conservation  
and Utilization in  
Indonesia

Announcement of  
'One Thousand  
Bamboo Villages'  
Program  
at COP 21 (Paris)

2015

1997

Phase 1

NTT : 20 Bamboo Villages

Bali : 5 Bamboo Villages (1  
Lamination Factory)

Phase 2

NTT : +25 Bamboo Villages  
NTB : 27 Bamboo Villages  
Bali : +35 Bamboo Villages  
Java : 92 Bamboo Villages  
Sulawesi : 62 Bamboo Villages  
Kalimantan : 62 Bamboo Villages  
Sumatra : 100 Bamboo Villages  
Papua : 62 Bamboo Villages

**Total** : 473 Bamboo Villages  
(equivalent)  
Industrial Revenue: 591.250  
Millions USD / year

2016-2021

West Java : 15 Bamboo Villages  
(1 Lamination Factory), (1  
Viscose Factory), (1 Paper  
Factory)

**Total** : 40 Bamboo Villages  
Industrial Revenue: 50 Millions  
USD / year

Phase 3

NTT : +30 Bamboo Villages  
NTB : +30 Bamboo Villages  
Bali : +35 Bamboo Villages  
Java : +93 Bamboo Villages  
Sulawesi : +63 Bamboo Villages  
Kalimantan : +63 Bamboo Villages  
Sumatra : +100 Bamboo Villages  
Papua : +63 Bamboo Villages

**Total** : 482 Bamboo Villages  
(equivalent)  
Industrial Revenue: 602.500  
Millions USD / year

# OUR PARTNERS

## Government Institutions

- Ministry of Environment and Forestry
- Ministry of Industry
- Ministry of Village, Development of Disadvantaged Regions and Transmigration
- Provincial Government of Bali, West Nusa Tenggara, East Nusa Tenggara and South Sulawesi.

## Civil Societies/NGOs

- Yayasan Kemitraan (Partnership Foundation)
- Yayasan Kehati (Kehati Foundation)
- World Wildlife Fund
- Cave Urban

## International Organizations

- International Tropical Timber Organization (ITTO)
- Inbar
- CBRC
- Asia Pacific Network for Sustainable Forest Management and Rehabilitation
- Multi-stakeholder Forestry Programme

## Private Sector

- PT Indobamboo Lestari
- PT BambooBos
- CIMB Niaga

## Association and Community

- Cooperative "Mele Maju" (*Koperasi Mele Maju*) – Central Lombok
- Nusantara Bamboo Community (*Komunitas Bambu Nusantara*)
- APHI
- Bambu Nusantara Academi (*Akademi Bambu Nusantara*)
- Community Groups

## Universities

- Brawijaya University – Malang, Bogor Agricultural University, Gajah Mada University, Bandung Institute of Technology, University of Helsinki,



## PARTNERS FOR BAMBOO COCOON NURSERIES

- P T. Jewelry Design Services – John Hardy, Bali
- Bambu Indah Villa
- Bali ReGreen
- ITTO Bamboo Project
- Kehati Foundation
- MOSO Bamboo Products World Wide
- Gaia Foundation – England



