1000 BAMBOO VILLAGES

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

Building The Village Factory (to produce useable bamboo laminate planks) and purchase machinery
Cost: US$220,000

PHASE III

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

Monitoring the implementation of the SBF system.
Cost: covered by cash flow revenues

PHASE V

Building The Village Factory (to produce useable bamboo laminate planks) and purchase machinery
Cost: US$220,000
“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 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 plantings 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
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

The harvest uses RBF system, i.e. the clump to be harvested is the clump consisting minimum of 36 culms per clump. The number of culms harvested are 6 culms/clump

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

INITIAL PROCESS OF INDUSTRIAL BASIC MATERIAL PROCESSING

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

SUSTAINABLE HARVEST
A THOUSAND BAMBOO VILLAGES BEGINS WITH A SINGLE STRIP

PRESENTED BY
ARIEF RABIK

ENVIRONMENTAL BAMBOO FOUNDATION
PT. INDOBAMBOO
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

COMMUNITY
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

MICROFINANCE (MF)
1. Creating local bamboo culture
2. Confirming job opportunities
3. Sustainable forestry management
4. Becoming a realiable supplier
5. Engaging government support in Phase 1
6. Embracing technical support and assitance
7. Understanding microfinance

INDUSTRIAL PARTNER
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

1000 Bamboo Villages Program
Empowering a Village Based Restoration Economy
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.
1995
International Bamboo Congress IV (Ubud, Bali)

2015
Announcement of ‘One Thousand Bamboo Villages’ Program at COP 21 (Paris)

2016-2021
National Strategy of Bamboo Conservation and Utilization in Indonesia

Phase 1
NTT: 20 Bamboo Villages
Bali: 5 Bamboo Villages (1 Lamination Factory)
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 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

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

1000 Bamboo Villages Program
Empowering a Village Based Restoration Economy
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