

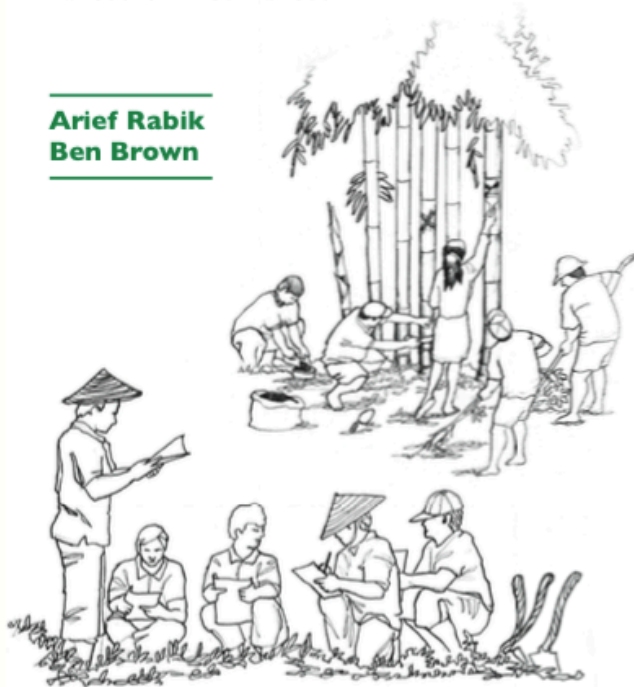
*10 must do's for resilient bamboo
forestry..*

Lessons learnt from THE “HUTAN BAMBU LESTARI” PROGRAM
forest in indonesia

TOWARDS RESILIENT BAMBOO FORESTRY

A Reference Guide for Improved Management of Clumping
Bamboo for Timber Bamboo

**Arief Rabik
Ben Brown**



A LANDSCAPE OF THE FUTURE



ENVIRONMENTAL BAMBOO FOUNDATION



1 MINUTE PREAMBLE ON INDOBAMBOO...



PT Indobamboo Lestari

Indobamboo SWB Beams

2.4 METERS LONG



Indobamboo Flooring planks



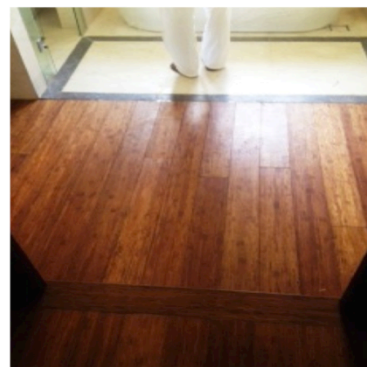
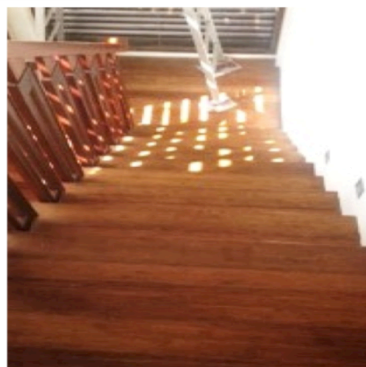
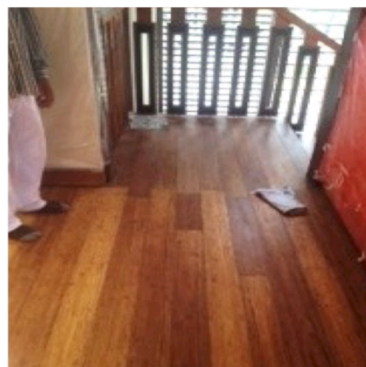
Indobamboo SWB Veneer



Indobamboo SWB Outdoor Decking



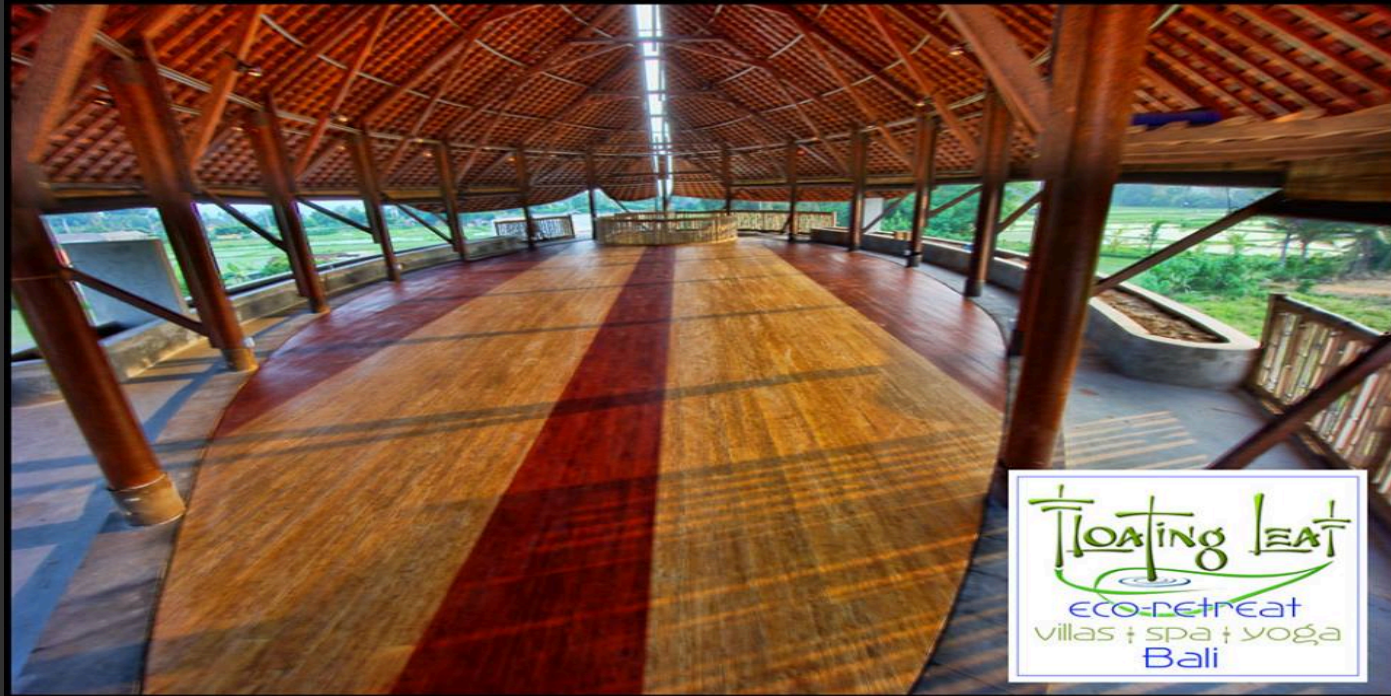
Shangri La Nusa Dua



Floating Leaf Eco Resort – Ketewel

2014

Architect - Agung Adi



WE NEED 3 TON OR 100 PLUS CULMS (16M) PER DAY



OR TWO OF THESE TRUCKS...



The survey and socilization 2009-2011



Presentation HBL program



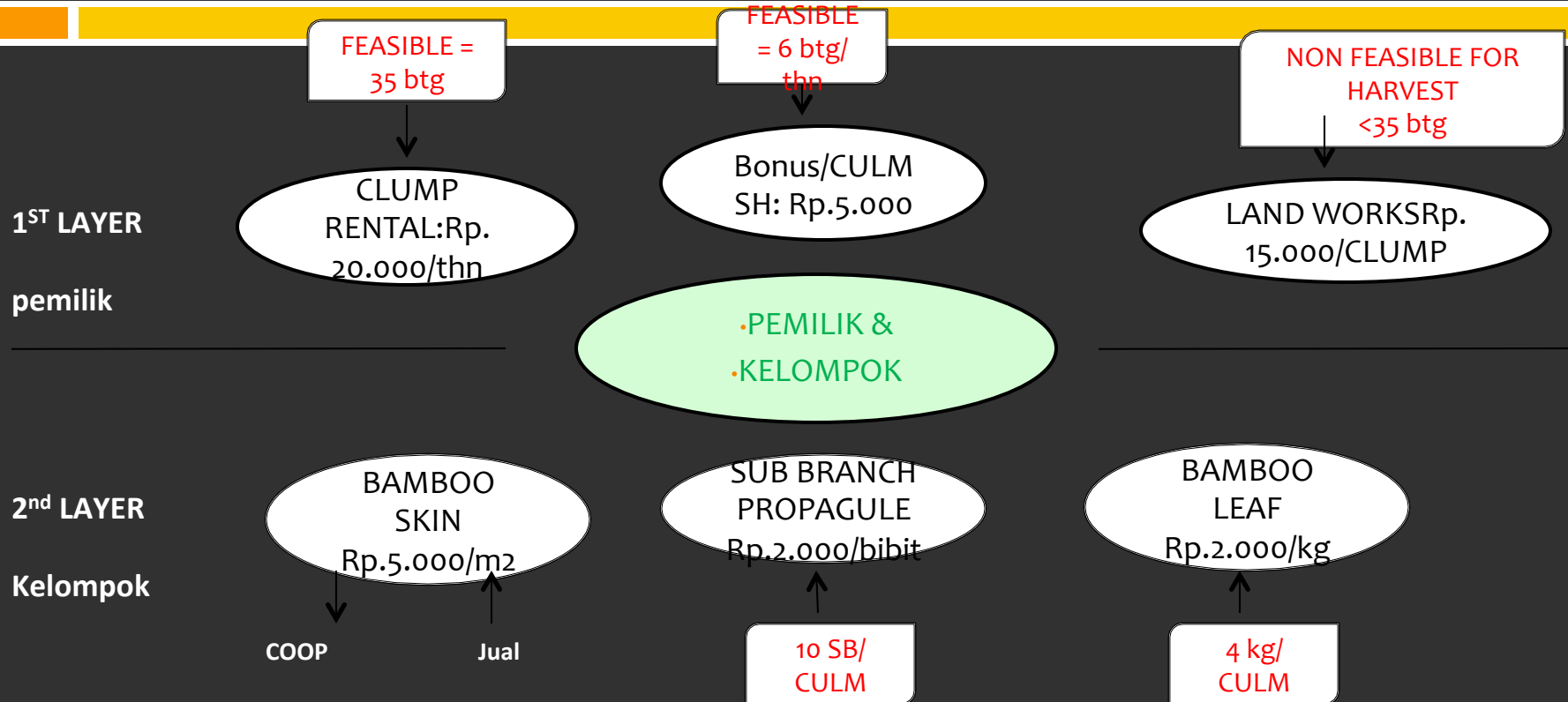
Survey lahan & pengukuran

Current bamboo condition in the 6 villages

15

Desa	No. of Bamboo owner	No.of Rumpun layak	No.of Rumpun minus
Were	165	1039	2741
Were I	46	244	874
Were IV	39	1610	593
Dadawea	59	221	2649
Radabata	65	565	4994
Ratogesa	38	1193	4641
Total	412	4872	16492

Income Scheme – Pemilik rumpun



Income illustration/Year

Perincian biaya:

- ❑ Sewa rumpun = Rp.20.000/rumpun/tahun
- ❑ Bonus panen Lestari = Rp.5000/batang (1 rumpun = 6 batang)
- ❑ Biaya pemupukan (Kompos) =Rp.15.000/rumpun/tahun.
- ❑ Maka total uang yang didapat Rp.65.000/rumpun/tahun

Contoh:

- ❑ Misal pak Thomas memiliki 10 rumpun layak (1 rumpun = 35 btg), maka pendapatan yang pak Thomas peroleh = $\text{Rp.65.000} \times 10 \text{ rumpun} = \text{Rp.650.000/tahun}$

Other Income – Lapis II

Pendapatan dari daun bambu:

- Harga daun bambu per kg = Rp.1.000
- Dalam satu batang = +/- 4 kg daun, jika 6 batang = $6 \times 4\text{kg} = 24\text{ kg}$
- Uang yang didapat dari 10 rumpun bambu = $10 \times 24 \times \text{Rp.1000} = \text{Rp.240.000}$

Pendapatan dari cabang akar (buku bheto)

- Harga 1 tunas = Rp.2000
- Dalam 1 batang = +/- 10 tunas, jika 6 batang = $6 \times 10\text{ tunas} = 60\text{ tunas}$
- Uang yang didapat = $60\text{ tunas} \times 10\text{ rumpun} \times \text{Rp.2000} = \text{Rp.1.200.000}$

Total Income/ year

Perincian pendapatan/tahun:

- Sewa rumpun = Rp.650.000
- Penjualan daun = Rp.240.000
- Penjualan cabang berakar = Rp.1.200.000



*Total income/year menyewakan
10 rumpun bambu = Rp.2.090.000*

1. KNOW YOUR BAMBOO

A photograph of two men in a dense bamboo forest. One man, wearing a white long-sleeved shirt, light-colored trousers, and a tan cap, is kneeling on the left, looking towards a bamboo stalk. The other man, wearing a patterned long-sleeved shirt, dark trousers, and a dark cap, is kneeling on the right, with his hand pressed against a bamboo stalk. The forest floor is covered with bamboo leaves and debris. The background is filled with numerous bamboo stalks and green foliage.

MANAGEMENT IMPLICATION

PROPERTIES

SUSTAINABLE YIELD

There is a Chinese saying about this:



"Appropriate place,
Appropriate time,
Appropriate bamboo."



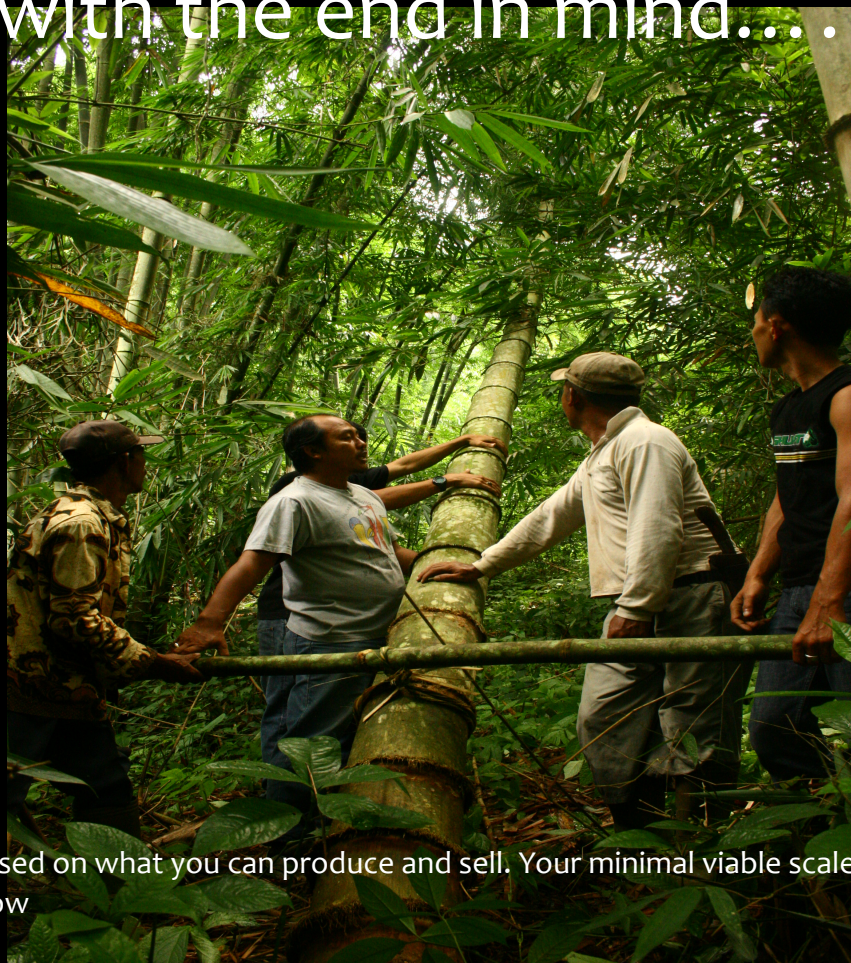


AND FIND UNDERSTOREY SPECIES THAT
CAN MAKE \$\$\$\$



ONE BAMBOO CLUMP HOLDS 50 CUBIC
METERS OF TOP SOIL AND ABOUT 5 M³ OF
WATER

2. Begin with the end in mind....



size your plantation based on what you can produce and sell. Your minimal viable scale that will create self sustaining cashflow

3. Assess the resilience of your bamboo resource area, SEE(p) approach..



3. Assess the resilience of your bamboo resource area, SEE(p) approach..

2.6.2

SURVEY FORM ECONOMIC

ECONOMIC - Indicators	Year				
Economic activity & employment					
Economic stability					
Distribution of wealth					
Livelihood diversification					
Unsafe livelihood activities					
Protection for small enterprise					
Local trade and transport linked to markets					



3. Assess the resilience of your bamboo resource area, SEE(p) approach..

2.6.1

SURVEY FORM SOCIAL



SOCIAL - Indicators	Year				
Settlement Pattern					
Food, nutrition & sanitation					
Structure/condition					
Peace and order					
Exposure to toxic chemicals and pollutants					
Access to support services					
People's participation in NRM					
Government participation in co-management					
Integration traditional practices into NRM					

3. Assess the resilience of your bamboo resource area, SEE(p) approach..

2.5.3.1

LANDSCAPE LEVEL INDICATORS



Indicator	Rating	Score
SOIL		
Soil loss	Serious erosion (gullying)	1
	Moderate erosion (rill, sheet erosion)	2
	Less erosion	3
Soil Productivity	Low productivity	1
	Somewhat reduced average production	2
	High productivity	3
Problem Soils	High occurrence	1
	Medium	2
	Rare	3
WATER		
Streams	Overflow after rainfall	1
	Dry in dry season	2
	Consistent flow year round	3
Occurrence of flood, drought	Often	1
	Moderate	2
	Rare	3
General Drainage	Poor; much standing water after rain event	1
	Average	2
	Good drainage	3
FOREST		



Low external inputs



designing a system that takes care of itself
overheads for management minimized.

SOUNDS EASY, IT'S NOT.

4. Create a plan through the field school method:



4. WE HAVE A CURRICULUM



IT TAKES 8 MONTHS MINIMUM.

5. Reestablishing Clump Structure and coding



5. Reestablishing Clump Structure and coding



7. Create a seasonal calender 6 months



and stick to it.

6. Mounding and sustaining growth of clump



8.create a coop



secure land access
rights and rules and powers of the coop.

9. Access.



farmers shouldn't walk 30 minutes to the clump that needs



10. SUSTAIN THE MANAGEMENT
PLAN AND SELL SELL SELL!!!

A close-up photograph showing a person's hand with a dark skin tone resting on a large, textured, brownish-yellow bamboo stump. The stump is surrounded by a thick layer of dark brown soil and numerous small, light-colored bamboo chips or shavings. The lighting is warm and focused on the hand and the stump, creating a sense of tactile connection with the natural material.

**The concept of a global competition
on “best practice”
for managing clumping bamboo.**