Model IV
is a model with indigenous tree species as **countur hedgerows on slopping lands**

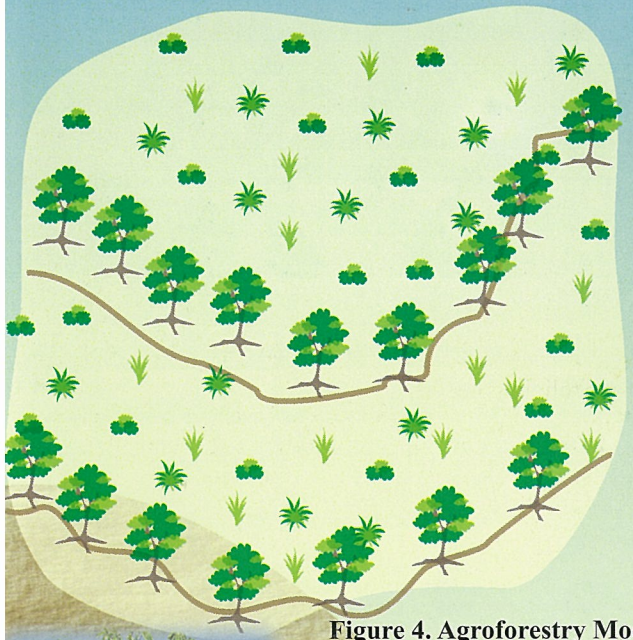

Figure 4. Agroforestry Model IV

Pulai
(Alstonia scholaris)

Bentawas
(Wrightia pubescens)

Sawo Kecik
(Manilkara kauki)

Bibliography

Arifin, HS, MA Sarjono, L Sundawati, T Djogo, GA Wattimena dan Widianto. 2003. *Agroforestri Di Indonesia*. Bahan Latihan. Bogor: World Agroforestry Centre (ICRAF). 77 hal.

De Foresta, A Kusworo, G Michon dan WA Djatmiko. 2000. *Ketika Kebun Berupa Hutan: Agroforest Khas Indonesia. Sebuah sumbangan masyarakat bagi pertanian berkelanjutan*. ICRAF. Jakarta: SMT Grafika Desa Putera. 249 p.

Sarjono, MA, T Djogo, HS Arifin dan N Wijayanto. 2007. *Klasifikasi dan Pola Kombinasi Komponen Agroforestri. Bahan Ajaran Agroforestri 2*. Bogor: World Agroforestry Centre (ICRAF). 25 hal

Suciati, A., A.D.Anggoro, D. Ristanto, D.Andrianto, I.Kertati, M.Friatana, R.Saleh, R.Pahlawanti, Rizani, R.Adriansyah, Suyanto dan U.Pramudianto. 2007. *Forest and Human. Pursuing Forest Management by People*. Suraya A.A. and R.Y. Zakaria (eds). Jogjakarta: KARSA supported by SGP PTF UNDP-EC-SEAMEO SEARCA. 164 p.

Wiyanto, A. 2000. *Agroforestry. Diktat Standar. Diktat Wirawana (Forest Ranger)*. Bogor: Pusat Diklat Kehutanan dan Perkebunan. 154 p.

Writer: **Agung IGAMS 2008**, Udayana University, Bali.

ITTO Project Secretariat,

FORESTRY SERVICE OF BALI
Jl. Raya Puputan No. 23 Renon Denpasar - Bali
Telp./Fax.: 62 361 263 043
email: itto_pd386@yahoo.com

BALI INDIGENOUS FOREST TREE-BASED AGROFORESTRY MODEL

PD 386/05 Rev.1 (F)
TECHNOLOGICAL DEVELOPMENT FOR THE PRODUCTION OF PLANTING MATERIALS TO SUPPORT SUSTAINABLE PLANTATION OF BALI INDIGENOUS SPECIES THROUGH COMMUNITY PARTICIPATION

Definition of Agroforestry

Agroforestry is a system of land used by combining agricultural crops with forest trees. Animal could also be component of agroforestry. **Bali Indigenous Forest Tree-Based Agroforestry Model** is the development of existing agroforestry model in Bali using Bali Indigenous Forest Tree species.

Bali Indigenous Forest Tree Species

Six spesies of forest trees, which grow well in Bali but are becoming scarce are **Panggal buaya** (*Fagara rhetsa*), **Majegau** *(Dysoxylum densiflorum)*, **Sawo kecik** *(Manilkara kauki)*, **Putat** *(Planchonia valida)*, **Bentawas** *(Wrightia pubescens)* dan **Pulai** *(Alstonia scholaris)*. Those spesies are used for handicraft and religious needs.

Objectives

The objective of Bali Indigenous Forest Tree-Based Agroforestry Model :

1. To increase local economy by planting indigenous forest trees, agricultural crops and rearing animal,
2. to efficiently use lands,
3. to conserve the environment and
4. to preserve Bali indigenous forest tree species.

Benefits

The benefits of Bali Indigenous Forest Tree-Based Agroforestry Model:

1. In economy, social and ecology aspects.
2. Sustainable land used from combination of trees and annual crops or grasses growing them on the same piece of land in space and time arrangement.

Putat
(Planchonia valida)

Bali Indigenous Forest Tree-Based Agroforestry Model

There are four models that could be chosen and adopted by farmers:

Model I
is a mix of indigenous tree species as the main stands with selected intercrops according to farmers' interest. The main stands are planted in rows with 5m x 2m spacing. This model could also be applied on farmer's owned lands which has not been planted with other crops.

Figure 1. Agroforestry Model I

Model II
is a mix of indigenous tree species as **hedgerows and border** of farmer's owned lands (private property), combined with species preferred by farmers. This model is to be applied outside production forest area or in farmer owned lands.

Majegau
(Dysoxylum densiflorum)

Panggal Buaya
(Fagara rhetsa)

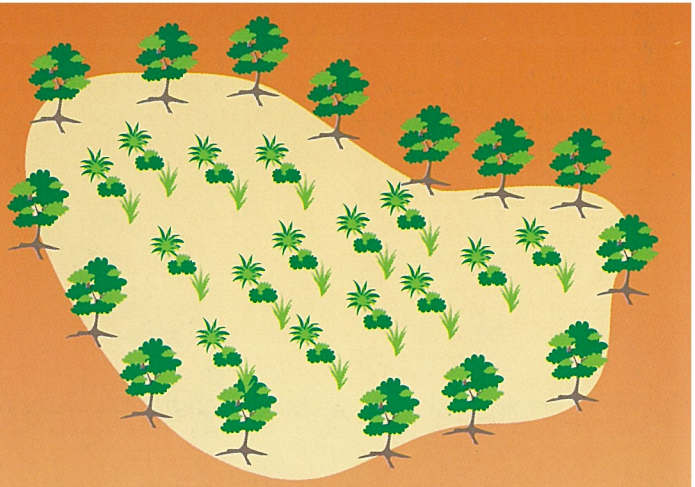

Figure 2. Agroforestry Model II

Model III
is a mix of indigenous tree species as **inserted trees between the existing main crops**; This model is to be applied outside production forest area or in farmer owned lands.

Figure 3. Agroforestry Model III