

Appraise and Design Locally Appropriate Bamboo Agroforestry in Ngada Regency, Flores, East Nusa Tenggara Province, Indonesia

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Abstract

Bamboo has been part of the social and cultural system for people in Ngada. In such a system, bamboo was inherited from the ancestors and became a communally owned property managed by tribe groups. As a result, the utilization of bamboo is still limited to their daily-life, cultural and traditional ceremony, as well as a religious celebration. Despite those traditional ways to benefit bamboo, Ngada people have local knowledge, which allows bamboo to grow together with other plantation such as trees, shrubs, palms and understory species called mixed garden or “*kebun campuran*.” However, there is still no clear evidence about the level of effectiveness related to this system. This study aimed to assess existing bamboo agroforestry practices and to design locally appropriate management system. Using ethnographic study, household survey and participatory rural appraisal approaches, this study was combining qualitative and quantitative methods to target relevant research findings. The results showed that the existing paradigm among local communities shares a traditional mindset in managing and utilizing bamboo, whereas bamboo has been managed with no cultivation system and no intensive maintenance. However, the community had owned the local wisdom of customary laws to ensure the sustainability of their bamboo. The local NGO introduced the sustainable bamboo forestry (SBF) system for community. This study also assess social capital owned by community as well as the transfer of knowledge the SBF system into their bamboo agroforestry system. There are two important keys to succeed the new system such as; capacity building and in the community level and provide understanding to the community about the importance of bamboo with added value through information and market access and connecting with the off-takers or industry.

Scope and Main Objective

Bamboo (*Poaceae*) has been part of the social and cultural system for people in Ngada. In such a system, bamboo was inherited from the ancestors and became a communally owned property managed by tribe groups. As a result, **the utilization of bamboo is still limited to their daily life, cultural and traditional ceremony, as well as a religious celebration.**

This study aimed to **assess bamboo culture and livelihood, existing bamboo agroforestry practices, and to design locally appropriate management system** in Ngada Regency, East Nusa Tenggara Province, Indonesia.



Methods



Ethnography study

Participatory Rural Appraisal (PRA)

Household surveys

Results & Innovative Approach

- The existing paradigm among local communities shares a **traditional mindset** in managing and utilizing bamboo.
- Bamboo has been managed with **no cultivation system and no intensive maintenance**
- Ngada community has **local wisdom of customary laws** operated by the tribes to ensure the sustainability of bamboo
- The **Sustainable Bamboo Forestry (SBF) system** introduced by local NGO.

Conclusion & Recommendation

The **appraisal and design the locally appropriate bamboo agroforestry** in Ngada Regency were developed.

There are two important keys to succeed the locally appropriate bamboo agroforestry system:

1. Increase **the capacity building** in the community level
2. Empower the community through **information and market access** as well as connecting to the off-takers/industry **to increase the bamboo value.**

