# PRINCIPAL AGENT IN TREE MORTGAGE SYSTEM ON TRADITIONAL AGROFORESTRY MANAGEMENT IN MOLUCCAS INDONESIA

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#### BACKGROUND AND OBJECTIVES

Agroforestry has long been practiced for generations by the people in Moluccas Islands, known by the term "Dusung".

As a form of the Community forests, nutmeg farmers only count on experience, with lack of education level and knowledge. The weak on financial management and marketing systems of nutmeg in Moluccas, especially Ambon city is the reason for farmer involvement in debt bondage in local language known as debt bondage (ijon) system that is very detrimental.

Research of the involvement of farmers in debt bondage (ijon) system is not widely conduct. For that reason, this study aims to explain the nutmeg farmer involvement in some form of bonded labor system, which is "tree mortgage system". Knowledge and understanding about the reasons for the involvement of farmers in the nutmeg tree mortgage system is very useful for the parties who involved in developing efforts to empower communities around the forest.

# **METHODS**

The research was conducted in the village of Hutumuri, District Salahutu Moluccas province. Hutumuri village chosen as the research site because it is one of the villages in Moluccas which have the potential a productive Nutmeg dusung and nutmeg largest producer in the District of South Leitimur, Ambon.

This research is using the case study method, where data collection was conducted through in-depth interviews and participant observation. Interviews involved 15 owners of Nutmeg dusung

Data analysis was performed using the Principal Agent Relationship Theory to explain the existence of a relationship in which a person or more as a giver of trust (principal) to influence others as partners to receive the trust (the agent) to perform some tasks principal by delegating decision-making authority to the partner in question (agent). This relationship implies either: (1) problems related to the transfer of ownership rights (transfer of rights), (2) the problem of a mismatch of information (asymmetric information) in a relationship of principal and agent, and (3) the emergence of transaction costs (information costs, coordination costs and strategy cost).

#### **RESULTS**

#### **Transfer of Rights**

Harvesting nutmeg were highly correlated with tree mortgage system that has lasted quite a long time in the region.

Tree mortgage system is one form of the agreement established between nutmeg farmers as principal (P) and debt bondage (ijon) / capital borrowers as agent (A). The system shows the temporary transfer of rights between P and A. The deal is a certain number of nutmeg trees used as collateral for borrowing some money by farmers to bonded labor. The background of the system implementation is due to the economic needs of the family; where in certain circumstances, farmers need capital to finance a number of family needs such as school or college fees, home improvement and other purposes.

There are 2 forms of tree mortgage system, namely: The annual mortgage, it is an agreement where the trees are mortgaged as collateral for ≥ 1 year according to the agreement that was built and Mortgage season, is a tree mortgage agreement applicable at the time of great harvest / harvest

# **Asymmetric Information**

Relationships that created in tree mortgage system between farmers nutmeg as principal (P) and debt bondage (ijon) (debt bonded) as agent (A) has led to asymmetric information / mismatch information. A mismatch information appear because the A were exploiting the advantages of information and marketing prospects nutmeg than more than P. This happen because the marketing and determining the selling price of nutmeg is fully controlled by A.

# **Transaction Cost**

Transaction costs incurred when nutmeg farmers as principal (P) provides a complete trust to debt bondage (ijon) as agent (A), where P and A held the exchange of their rights and the mutual wish to enforce the exclusive rights.

The emergence of the transaction costs for any coordination process cannot be separated from a marketing system that is fully controlled by A. During trees mortgage system takes place, every month P needs to have a meeting to coordinate with A. the coordination is conduct to discuss Dusung conditions and determining appropriate harvest time. This implies on incurring coordination costs that charged to P every month

# Improvement Contract on Tree mortgage system

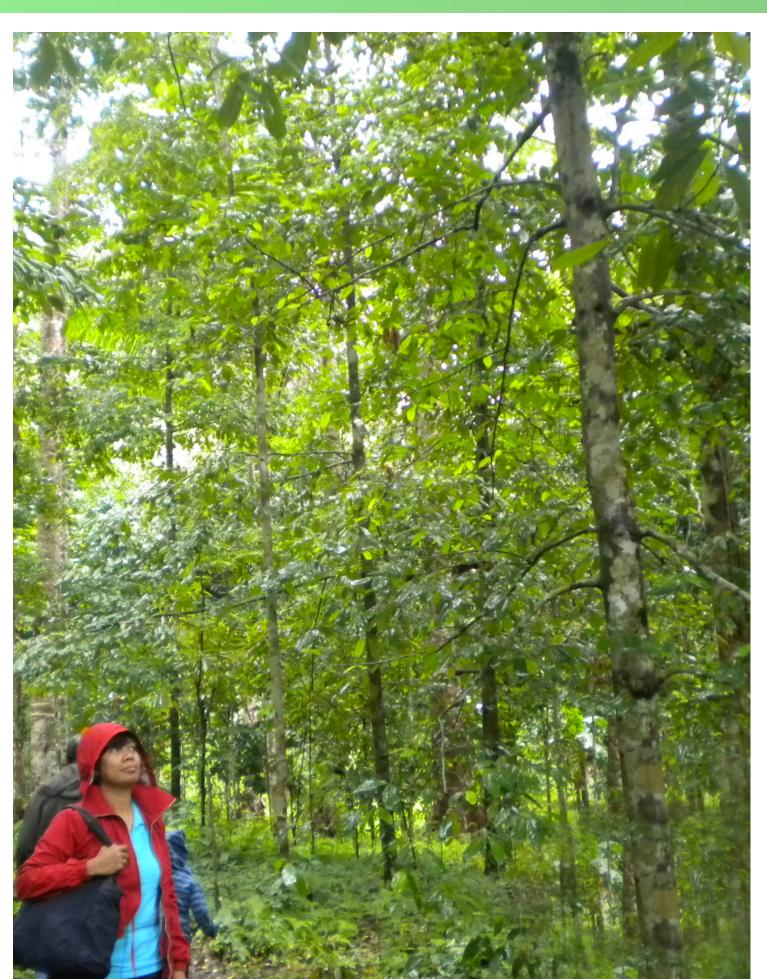
Determining the optimal written contract is very important to be agreed, the rights and obligations between P and A can be fairly arranged in equitable manner. The contractual relationship between P and A will guarantee the P gain incentives from his dusung management activities over the years.

In addition to mortgage tree improvement system which occurs during this time, the strengthening of local institutions is also necessary.

The increased bargaining position of nutmeg farmers will surely encourage the forest resources sustainability through the management of nutmeg Dusung which proved to have good performance.

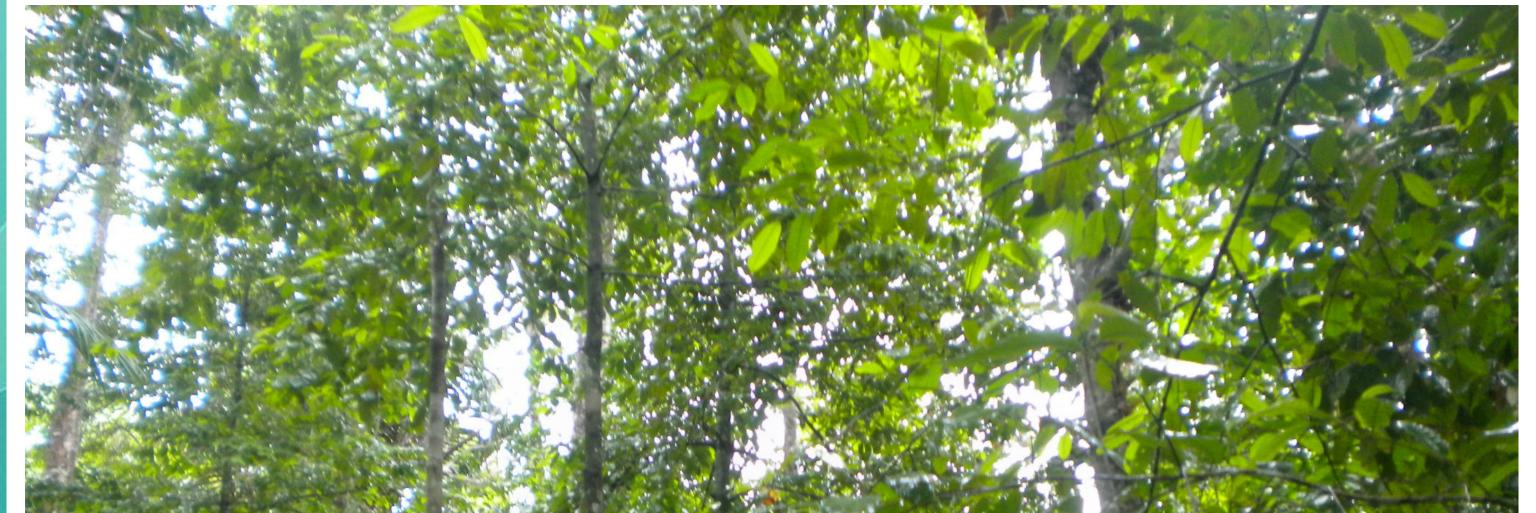
# CONCLUSION

Relations between nutmeg farmers and debt bondage (ijon) in the system mortgage tree shows that the implications in the form of temporary transfer of rights from the farmer to ijon/debt bondage. An asymmetric information appears because debt bondage (ijon) exploiting the excess of information and marketing prospects nutmeg than the farmers, and the appearance of enforcement transaction costs from the tree mortgage system activity. improvement of system contracts mortgage tree needs to be done with an emphasis to the growing issues as well as results of monitoring and evaluation of the system implementation. Strengthening local institutions is very important because it can improve the bargaining position of nutmeg farmers and encourage the sustainability of forest resources through sustainable management of Nutmeg dusung.









# References

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