



THE USE OF GEOGRAPHICAL INFORMATION SYSTEM TO
ANALYZE DRY FIELD AND HOME GARDEN LAND
SUITABILITY TOWARD TYPE OF WOODEN PLANT
(Case Study in Sub residence of Imogiri, Residence of Bantul)

By:
Didik Edhi Wibowo*

ABSTRACT

Rapid advanced in this era and increased of population growth cause increasing of human need either in amount or in kinds. Increased of population number cause increasing of firewood, crafting wood, and new job opportunity. Consider to human need has limited characteristic, so men will always need land to complete their needs. Meanwhile land has limited characteristic either in quality or in quantity, so it will happens a competition in using those lands. It causes occurring purpose on land resources and it is worried in using land that not appropriate to the purpose will create lower of land quality itself. There it need the use of land space including dry field and home garden maximally in order for production function and conservation will be secured.

This research aimed to consider types of wooden plant which has benefit to be developed on dry field and home garden and analyze the land suitability. Type chosen that is *Swietenia mahagony*, *Tectona grandis*, *Acasia auriculiformis*, *Nephellium lappaceum*, *Achras zapota*, *Mangifera indica*, and *Artocarpus heterophylus*.

Method of analysis of land suitability used in this research was a matching method, that is a matching physical condition of actual land and requirement of growing species. Result of this research showed that level of suitability on seventh species consisted of S1 (very suitable), S2 (suitable enough), S3 (marginal suitable), N1 (now not suitable), and N2 (permanent not suitable). Level of S1 was just for *Acasia auriculiformis* that is, about 22,58 hectare (0,41%). Level of S2 and S3 were found for all type of wooden plants approximately 1.802,89 hectare (32,98%) and 1.678,7 hectare (30,85%) respectively and the located spread over in all villages. Level of N1 was found for all species approximately 1.335,2 hectare (24,47%). Level of N2 was just found for type of fruit plant approximately 615,88 hectare (11,32%). Therefore general obstructing factors were on slope and solum where slope can be handled by making stratified land (teras), planting vegetation with same direction to the contour and give land closing vegetation, meanwhile solum can not be possible to be conducted improvement in relative quick time.

Keywords: Geographical Information System, land suitability, dry field, home garden

* Student S1 at Faculty of Forestry, Gadjahmada University

