

SELARAS PRINCIPLE FOR SUSTAINABLE BIOMASS PRODUCTIONS IN INDONESIA

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Biomass production has been facing multi challenges not only to supply food and fiber as were used to be but also to provide a clean and renewable energy for supporting many aspects of human life. Mass production of biomass is becoming more crucial to meet the needs for food, fiber and energy of Indonesian people which are still steadily increasing in number year by year. Land and water demands for agricultures have been increasing but they should compete harshly with other development sectors which always end with losses on the agricultural sides. Land conversion or water diversion from agricultures have become common phenomena when rural areas have been developing. Agricultural development or expansion of a new land consequently takes place in farther areas which might result in an incredible costs for infrastructures and investments. Other problems might arise relating to deforestation, water and soil quality including those concerning social-economical matters of local/indigeneous people. In this regard, a sustainable biomass production requires comprehensive and integrated approaches and strategies subjected to a clear goal or targets that meet all biophysical, social and environmental constraints. Selaras Principle that we introduce to develop biomass production in a sustainable way is a set of systematic approach. Selaras principle has 3 common objectives, such as to increase land productivities, to decrease negative impacts and to enhance welfares of nature and people. Land productivity is set to meet a minimum target subjected to economical viability whilst the environmental impacts should be within tolerable indicators which are accepted by the laws. Attempts then to be conducted to continuously improve production inputs, technology, management, human resources, infrastructures, regulations and if necessary, laws. This paper will describe the concept of Selaras Principle and how it is being introduced to develop mass production of Acacia trees for pulp and paper in Indonesia.