

Abstract

The Relevant Population Dynamics to Land Degradation in The Northeast

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The concept of land degradation refers to the deterioration or total loss of the productive capacity of soil both under physical conditions by wind and water erosion, and under the man activities such as deforestation; overgrazing; agricultural activities and use of machines. Land degradation in the northeast is associated with population factors such as population size/growth; population change/migration (in-migration and out-migration) . Population factors can play a role in land degradation. In this paper, there are two objectives; 1) to scrutinize the feasible relationship between population factors and land degradation and help integrate environmental concern and considerations in population policy; and 2) to promote people's awareness relating to land degradation problems as a public policy on environment management. Study's result, population growth usually appears as the major cause for land degradation. The main historical causes of deforestation in order of priority have been poverty, population growth, and the price of cassava. Overgrazing especially cassava growing has destroyed vegetation and led to the loss of topsoil. The rapid increase in production has been stimulated by the demand for cassava by the animal-feed industry. The promotion of mono-cash crops since 1970s by the government has been increased land clearing for cassava cultivation in the northeast both for the domestic market and for export. Cassava is a very popular crop, a part of the cash income of northeastern farmers, but it results in soil depletion. The statistical correlation between population dynamics (percent of population growth rate), economic factors (cassava crop; percent of land area) and land erosion (depletion rate of forestland per year) is significantly demonstrated at both the 0.01 and the 0.05 level. The government has set a forest conservation target by reforestation, population policy, and people's awareness. It is hoped that a combination of reforestation policy; population policy such as family planning, and people's awareness incentives such as increased education will help bring

about a better balance between people and resources in densely populated resources-poor areas.