Land System Resilience: Linking Agricultural Land Use Change and Matrilineal System in West Sumatera, Indonesia

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Abstract

Climate change and natural disaster has both direct and indirect effects on agricultural productivity including changing rainfall patterns, drought, flooding and the geographical redistribution of pests and diseases and importantly, the agricultural land use changes to no Agricultural land. Global land system changes are occurring at an unprecedented pace and have major implications for the environment and human well-being. These impact also occurs in West Sumatera, Indonesia. Climate change has impact to agricultural activities such as drought and harvest failure thus posing a risk for farmer. While the natural disaster such earthquake in 2009 resulted the movement of people from coastal area to upland area whereas the agricultural land exist. So that this study aims to analysis the land system resilience of farmer in West Sumatera. This study using a desk study method. The result of the study shows that the matrilineal system in Minangkabau tribe is forcing the farmer to preserve their agricultural land. Most natural resource property, and especially the irrigated rice fields, was inherited property of matrilineages. These Minangkabau people-property complexes were characterized by differentiated mixes of rights held and inherited by individuals or groups within the matrilineage. The property that the ancestors of the lineage members created through their cultivation of the jungle, which descends and is to be shared in continuity through the generations of all lineage members who can trace their matrilineal descent from these ancestors. In other word this property cannot be sold. We study three different location are with different agricultural plant. The first location is Padang City, where most of the farmer cultivate rice. The result shows that the farmers preserve their land because of their land ownership is communal land that belong to tribes in Padang. The same result was founded in Agam District, where the horticultural farmers preserve their land because the land is a high heritage. Surprisingly, in the third location, in West Pasaman, we found different result. The Palm oil farmers have sold their high inheritance land and the land has been certified so that it is no longer belong to communal. It is because oil palm have high economic value rather than the other agricultural products.

Keywords

Land System Resilience, Matrilineal System, West Sumatra Indonesia

Introduction

Climate change and natural disaster has both direct and indirect effects on agricultural productivity including changing rainfall patterns, drought, flooding and the geographical redistribution of pests and diseases and importantly, the agricultural land use changes to no Agricultural land. Global land system changes are occurring at an unprecedented pace and have major implications for the environment and human well-being. These impact also occurs in West Sumatera, Indonesia. Climate change has impact to agricultural activities such as drought and harvest failure thus posing a risk for farmer. While the natural disaster such earthquake in 2009 resulted the movement of people from coastal area to upland area whereas the agricultural land exist. So that this study aims to analysis the land system resilience of farmer in West Sumatera.

Methods

This study using a desk study method. We study three different locations with different agricultural plant.

Results

The result of the study shows that the matrilineal system in Minangkabau tribe is forcing the farmer to preserve their agricultural land. Most natural resource property, and especially the irrigated rice fields, was inherited property of matrilineages. These Minangkabau people-property complexes were characterized by differentiated mixes of rights held and inherited by individuals or groups within the matrilineage. The property that the ancestors of the lineage members created through their cultivation of the jungle, which descends and is to be shared in continuity through the generations of all lineage members who can trace their matrilineal descent from these ancestors. In other word this property cannot be sold.

Discussion

We study three different location are with different agricultural plant. The first location is Padang City, where most of the farmer cultivate rice. The result shows that the farmers preserve their land because of their land ownership is communal land that belong to tribes in Padang. The same result was founded in Agam District, where the horticultural farmers preserve their land because the land is a high heritage. Surprisingly, in the third location, in West Pasaman, we found different result. The Palm oil farmers have sold their high inheritance land and the land has been certified so that it is no longer belong to communal. It is because oil palm have high economic value rather than the other agricultural products.

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