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## Effects of the Interaction of Migration, Financial and Social Capital on the Adoption of Agricultural Innovation and on Social Stratification in Central Sulawesi (Indonesia)

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### Abstract

The adoption of cacao agroforestry in mountainous Central Sulawesi is a key process for poverty alleviation at the community level with ambivalent social effects. Furthermore, cacao agroforestry expansion leads to deforestation of uplands at and beyond the border of Lore Lindu National Park (LLNP), one of a few little-disturbed core areas of the Wallacea biodiversity hotspot. We knew from previous studies that Buginese migrants acquire land around LLNP predominantly via purchase while autochthonous households acquire land mainly by forest conversion. We argue that the adoption of intensive agroforestry systems results in deforestation and social stratification via an iteration of financial capital- and personal capital-driven land acquisition and agroforestry intensification by Buginese migrants, and social-capital and poverty-driven forest conversion by other inhabitants. We test this hypothesis using census data of 787 households (2005) from three contrasting villages (Chi<sup>2</sup>-Tests).

At the inter-village level, Bulili —a village in the agronomically more valuable, more flat Palolo Valley- has the highest percentage of Buginese inhabitants (43.7% vs. 14.9% and 0.6%), the most intensive cacao production (e.g., only 1.7% extensive ‘forest cacao’ vs. 7.4% and 15.4%), and on average the best-off inhabitants ( $p = 0.002$ ). In general, Buginese migrants occupy the better, more flat land (often at or near valley bottoms) while other inhabitants possess, on average, more steep uplands ( $p < 0.001$ ). This is the result of the Buginese quest for high value land outside mountainous LLNP. The Buginese stem from economically more advanced southern Sulawesi where intensive cocoa production is well-known. Migrants of other ethnicity lacking this background do not possess more flat land (all migrants:  $p = 0.148$ ). Locals are willing to sell their land including extensive cacao plots because they command the social capital to convert forested uplands even inside LLNP. In contrast, Buginese moving to intensified, petty capitalist-type surplus production are rarely in need to sell land. Facilitated by lacking knowledge on intensified cacao agroforestry, and because proceeds from land sales are often used for culturally mandated status consumption, a creeping spatial and economic marginalisation of the non-Buginese inhabitants is observed: Predominantly, poorer, non-Buginese households are found on the steeper uplands ( $p < 0.001$ ).

**Keywords:** Cacao agroforestry, cultural factors, ethnicity, marginalisation, migration, national park, poverty alleviation, social stratification, uplands

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