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Bouncing Back: Rubber and its Capacity in the Restoration of Rural Livelihood in Post-Tsunami Aceh, Indonesia

CHRISTOPH SAENGER¹, SUSENO BUDIDARSONO², YULIANA C. WULAN², BUDI², LAXMAN JOSHI²,
GEORG CADISCH³, MATIN QAIM¹

¹*Georg-August-Universität Göttingen, Food Economics and Rural Development, Germany*

²*World Agroforestry Centre SEA (ICRAF), Economic Functional Unit, Indonesia*

³*University of Hohenheim, Institute for Plant Production and Agroecology in the Tropics and Subtropics, Germany*

Abstract

When the 2004 tsunami hit the Indonesian province of Aceh, 170,000 people were killed and infrastructure in the coastline was severely damaged. The natural disaster further aggravated the economic downturn of a province which already had suffered from a decades lasting political conflict. By now, efforts in reconstruction have shown signs of relief, mainly in the construction and mining sector. Before and after the tsunami rubber production is economically important for Acehnese smallholder farmers. Yet, the rubber sector is known for poor quality of the raw product, lack of local processing capacity and market inefficiencies. This study examines the development of income levels and poverty rates in five coastal and inland villages between 2004 and 2007; it also identifies the role of rubber for rehabilitation of rural livelihoods in Aceh.

Detailed household survey data were analysed with descriptive statistical methods and employing the Foster-Greer-Thorbecke-class of poverty indicators. Complementary interviews with key persons in the rubber marketing chain were carried out to identify constraining factors for market participation of smallholder farmers and to quantify costs and margins of traders. Finally the impact of establishing local processing infrastructure on rubber farm-gate prices was quantified; resulting effects on income levels and poverty rates were simulated.

The analyses reveal that land and livestock assets were lost during the tsunami leading to decreasing farm incomes and a doubling of poverty rates in the coastal area. The disaster may also have indirectly battered the hinterland where incomes stagnated, offsetting positive economic effects of the peace agreement, which became possible only after the tsunami.

Alternatively, on-site rubber processing would reduce transport costs for rubber. The resulting five percent increase of rubber farm-gate prices would – assuming competitive markets - translate into eleven percent lower poverty rates in the study villages. However, market inefficiencies may limit the gains for smallholder farmers suffering from low bargaining power. Due to informational deficits, market interlocking and the absence of a quality grading system for rubber, intermediaries in the marketing chain may benefit most, exacting rents. Given market inefficiencies and institutional constraints in the rubber sector some scope exists for policy intervention.

Keywords: Aceh, agro-processing, income, poverty comparison, rubber, rural development, tsunami