

Impact of Population Pressure on Food Production in Papua New Guinea Highlands

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The impact of increase in population on food production was examined in two environmentally contrasting Huli-speaking communities, Heli and Wenani, in the Tari basin in Papua New Guinea Highlands. Despite the similar extent of population increase in both communities, the damage to land differed markedly. In Wenani, villagers have coped with the population increase by enlarging areas for cultivation and possibly will be able to double their present production level, although increasingly frequent disputes over land rights have restricted peoples' access to fertile areas. In contrast, in Heli, a decrease in land productivity owing to excessive agricultural use has induced farmers to shorten the fallow duration, which in turn has led to further land degradation and difficulties in increasing food production. During a period of climatic perturbations in 1994, land and labor productivities of crops were three times higher in Wenani than in Heli. The latter community suffered a severe food shortage and body weight loss. This difference in ability to cope with climatic perturbations may have increased with population growth. The findings in the present study suggest that the effects of population pressure on food production may differ between communities, depending on the indigenous environment and subsistence pattern.

Keywords: land use, population pressure, environmental degradation, Papua New Guinea Highlands