

Agricultural development on subtropical island ecosystem in Okinawa

NAGATA, Junji^{1*}, ARAI, Sachiho W.²

¹The University of Tokyo, ²Tokyo University of Agriculture and Technology

Okinawa, the southernmost part of Japan, was reverted to Japanese administration in 1972 from the United States military administration. With this as a turning point intensified was the government intervention in agriculture of Okinawa. Along with the protection policy for sugar industry enhanced, land improvement project was promoted as the basis of modernization of agriculture of Okinawa. The pioneering land improvement project in Ishigaki Island started in the late 1970s including the construction of full-scale irrigation system and farmland consolidation. It has, however, faced up to the fierce objections by farmers since the late 1980s, which makes it hard to complete it. The objective of this study is to secure the better understandings of this confusing phenomena and to derive policy implications from analyzing what the project has brought to farm managements in Ishigaki Island, paying due attention to the farmers' experiences, learning and evaluations as the project goes on. While short-term effects of increasing productivity brought by land improvement project is unquestionable as to the wet-paddy agriculture in mainland Japan, our analysis showed that, it is not the case in Okinawa where the project mainly targets sugar cane farming; the farmers insufficiently appreciate short-term effects of the projects as follows. 1) The irrigation is not the prominently critical factor affecting the yield of sugar cane. 2) Although the farmland consolidation certainly improved working conditions and accessibility to the field, in the consolidated farmland the negative effect to the yield of crops is observed and especially it is crucial to the cultivation of tropical fruits such as pineapple and mango, one of the promising sectors of agriculture of Okinawa. The result of this study implies continuing the same idea and substance of land improvement project up to now would not lead to the promotion of promising agriculture in the specific physical and social conditions of Okinawa.

Keywords: Okinawa, subtropical region, island ecosystem, agricultural policy, land improvement project, irrigation