

THE ROLES OF INSTITUTION IN ENHANCING SUSTAINABLE RICE AGRICULTURAL LAND MANAGEMENT: A COMPARATIVE STUDY BETWEEN INDONESIA AND MALAYSIA IN FORMULATING THE STRATEGIES TO DEAL WITH CLIMATE CHANGES

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ABSTRACT

The role of institutions in the agricultural sector is to achieve food independence and security. This study aims to: (1) Identify the forms of farmer institutions in Indonesia and Malaysia, (2) Analyze the role of farmer institutions in Indonesia and Malaysia to adaptation with agricultural land, and (3) Formulate a strategy for farmer institutions that support the implementation of sustainable rice farming programs. This research is descriptive analysis. Research was carry out in April through October 2021, taking location in Bantul District, Indonesia and Perlis, Malaysia. Population of this study were all farmers in the agricultural land in Bantul District, Indonesia and Perlis, Malaysia. Sampling in Bantul District was carried out purposively, namely by selecting 4 (four) sub-district with different ecosystem. Sampling in Perlis was carried out purposively, namely by selecting MADA area. The research data were collected through observation, interviews, FGD, and documentation. The data collected was then tabulated and analyzed descriptively. The results show that: (1) Forms of farmer institutions in Indonesia are formal (field extension officers, village unit cooperatives, Bank Rakyat Indonesia Village Units) and non-formal (farmer groups), whereas forms of farmer institutions in Malaysia is formal (agricultural departments under the MAFI), (2) Roles of farmer groups in Indonesia to adaptation with agricultural land is dominated moderate by the role of learning, while other roles (as a medium of cooperation, as a production unit, as a business unit) are still poor. Roles of field extension officers on agricultural land in Indonesia is dominated moderate by the role of innovator, while other roles (group counseling, supervision on farmer's land, individual counseling, as facilitator) are good dominated. It's shows that their performance as extension workers has been done well. Roles of Agricultural Department in Malaysia dominated good in solemn advice and agricultural negotiations, in training for farmer entrepreneurs, in certification scheme for field quality certification, in solemn technical support, and in solemn regulatory and power strengthening deed. It's shows that their performance as Agriculture Department has been done well also, (3) Farmer institutions strategy in Indonesia that support the implementation of sustainable rice farming programs are provide assistance to farmers' adaptation efforts to adapt the conditions of their ecosystem. Adaptation efforts have been made, including crop rotation adaptation, nursery adaptation, processing adaptation, irrigation adaptation, and fertilization and pest eradication adaptation. Farmer institutional strategies in supporting the implementation of the sustainable rice farming program in Malaysia are: improving agricultural infrastructure, especially irrigation systems and channels for certain agricultural areas, strengthen and develop solemn agricultural support and agricultural management, aligning solemn activities of advice and service of development to target groups through human development/training programs, and strengthening the service of implementing agencies in the development of agricultural institutions and cultivators.

Kata Kunci: *Institution, Agricultural, Sustainable, Climate Changes*