MACRO – MICRO LINKAGES ON AGRICULTURAL DEVELOPMENT: A CASE STUDY IN GIANYAR, BALI, INDONESIA

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Abstract

This paper aims to describe the macro-micro linkages in agriculture development in Gianyar, Bali, Indonesia. This study focuses on the agricultural development paths and heterogeneity of perspectives towards it, which influence farming styles of farmers. The study was a case study which allows flexible responses to social processes evoked by the events. Ethnography approach in the Macro-micro linkages analysis provides a comprehensive understanding of community perceptions and what was happening in the community. Data were collected through various methods, including participant observation, in-depth interviews, and document analysis. The results show that structural elements in Gianyar’s agriculture pose hindrances and opportunities, creating rooms for manoeuvre and influencing farmer’s ability in exercising their agency. Some farmers were able to exercise their agency in choosing which structures to be attached to, and which farming styles to practice. This condition led to heterogeneity of perspectives toward agricultural development paths. Respectively, it contributed to the emergence of different farming styles and farming strategies in the micro level. Furthermore, this paper is not only about the differences in perspective on agricultural development, but also about the liberty of generating alternative ideas for farming, the capability and knowledgeability of farmers that could be the seed of endogenous agriculture development.

Keywords: agricultural development, macro-micro linkages, farming styles, perspectives.

Introduction

Agricultural development in Indonesia has been through several phases. Green Revolution is one of the most influencing events in Indonesian agricultural development. It has been able to improve the farmers’ economy by increasing the productivity of agricultural products, which in the end secured the Indonesian food supply. However, external materials and practices brought by the Green Revolution formed problems for the environment, health condition, and replaced original practices. “Moreover, it also changed the way the farmers interact with their social, natural and technological contexts. As the ‘modern’ farming requires capital to procure agricultural inputs which means that only those who have certain amount of capital are able to continue to grow and survive in the competition, leaving those with limited capital behind” (Nugraha, 2015). Therefore, social gaps also emerged due to the Green Revolution. “In Indonesia, as elsewhere in Southeast Asia, the Green Revolution disproportionately benefited wealthier rural residents, who used the new technologies to increase production and shed traditional obligations to women and poorer neighbours, who were pushed onto more marginal land or off the land entirely” (Welker, 2012).

Post Green Revolution period, Indonesia was lead to a more sustainable farming practices. Several programs promoting organic and low input agriculture practices are proliferating from the government and Non-Government Organizations (NGOs). At the global level, the Sustainable Development Goals (SDGs) became the basis of Indonesian governmental tendency to support the alternative styles of farming. However, despite where the program leads Indonesian agriculture to, responses at the micro level often to be put in the periphery. “There is, currently, a re-emergence of
deterministic views that strongly emphasize the impacts of general, ‘external’ pressures on agriculture, whilst neglecting the importance of responses generated at the micro-level” (Ploeg, 2012). While in the field, agricultural practices brought by the Green Revolution and SDGs projects are being questioned in many levels of the societies. The contestations about the ideas of the ‘ideal’ way of farming are not only happening in the level of experts, but also the farmers. As the results, the emergence of grassroots based initiatives that justify their farming styles are proliferating. “These alternative ideas not only arise due to external influences, but also from the farmers’ intuition, experiences, experiments, and even beliefs and relation with ancestors. Nevertheless, these ideas are often being ignored, considered as practice without a theory or even ‘crazy’, while it might be the seed of endogenous development of their agriculture” (Nugraha, 2015).

The overall objective of this paper is to see how the contestations of agricultural development path shaped the emergence of different farming styles as a socially constructed process. More importantly, to see how the farmers perceive their structures and justify their chosen path of agriculture, which is the manifestation of responses generated at the micro-level, which as Ploeg (2012) stressed, are often neglected in agricultural development processes.

Materials and Methods

The framework of this paper was adapted from the macro-micro-macro linkages analysis (Figure 1), which analyses different structural levels (micro and macro) and how they relate to certain actors. First, it analyses the impact of the situation in the macro level (the structure) to the micro level. Then it analyses how do actors in micro level processed and reacted to the situation in where they conduct their farming activities. The last part, analyses how these responses generated at micro level affected the macro situation. However, we only used macro-micro linkages analysis to suit the objectives of the paper. It combines two major concepts in sociological studies: structure and agency, which also later in the paper focuses on the notion of styles of farming through the application of labour process analysis.

The structural analysis of agrarian change which focuses on processes (such as market incorporation, commoditization, institutionalization and externalization), was applied in order to analyse the settings in which practices of agriculture are being carried out. This structural analysis, however, does not see farming as practice which is determined by markets and technologies. It focuses on how specific interrelations are established between farm enterprises and communities, on the one hand, and markets, market agencies and the processes of technology development and transfer on the other; the question of how these relationships, once established, affect and remould the farm practices concerned (including the underlying strategies); and finally, structural analysis studies how the relationships involved might be changed over time (Hebinck & Ploeg, 1997).
However, in order to grasp how the farmers process and exercise their agency in determining what they think as ‘ideal’ way of farming, the structural analysis alone will not be sufficient, as Giddens stated, “structures are constituted by human agency and are the very medium of this constitution” (Giddens, 1976). The actor-oriented approach, then, “develops a theory of agency based on the capacity of actors to process and act on one another’s experiences in differentiated ways, in accordance with their competing priorities, purposes and circumstances” (Long, 2001).

Thus, this paper employed actor-oriented approach to show the heterogeneity of perspectives among farmers which has the capacity to process and react on their current situation. “It aims to understand farmers, their agricultural practices and relationships ‘within the context in which they live’ (Rhoades, 1984). In this context, the actor-oriented methodology, as elaborated by Long, has proved highly useful in getting to grips with the specificities of agricultural practices” (Hebinck & Ploeg, 1997). “An important contribution from the actor-oriented perspective consists in the notion of markets and technology as entailing specific room for manoeuvre, which is actively created by the actors involved through processes of negotiation and redesigning” (Ibid, 1997).

These three strands of theories of agrarian change and agricultural development were then summarised in the notion of styles of farming. “A style of farming is the complex but integrated set of notions, norms, knowledge elements, experiences, etc., held by a group of farmers in a specific region, that describes the way farming praxis should be carried out” (Hofstee, 1985 in Ploeg & Long, 1994). According to Hebinck and Ploeg (1997) a style of farming consists of three interrelated and mutually dependent levels. These levels are: “First, a specific cultural repertoire composed of shared experiences, knowledge, insight, interests, prospects and interpretations of the context in which farmers operate; second, a style of farming is an integrated set of practices and artefacts; third, a style of farming comprises a specific ordering of the interrelationships between the farming unit, on the one hand, and markets, technology and institutions on the other” (Hebinck & Ploeg, 1997).

Results and Discussion

The structures that shaped Balinese agriculture

Bali’s agriculture is influenced by various inter-related structures. Historical events (e.g. dissemination of Green Revolution and the 65 Tragedy) has shaped most of farmers’ mentality. While the current government and NGOs are promoting the discourse of sustainability, which is seen to be fit with the beliefs of some farmers. Farmers’ are exercising their agency in form of various responses to this situation, which has led to contestations of which farming practices that suit best Balinese socio-politic-economic and environment. Being freed from the chains of dictatorship of the New Order government which ruled for three decades, many representatives of local regions came up with their own ideas and power agendas. The sudden emergence of various interests and ideas triggered conflicts between the regions in Indonesia. Thus, the government decided to decentralise political power, giving authority to local governments in managing their own area through their own local policies, through the Constitution No. 22/1999 regarding the local government (Undang-Undang Nomor 2 Tahun 1999 tentang Pemerintahan Daerah). “Decentralisation in Indonesia had radical implications (Hull 1999), introducing considerable autonomy to very small district-level units” (Pedersen, 2007). “A policy of decentralisation and regional autonomy further stimulated such local and regional political agendas” (Roth, 2014). This event was then, seen as an opportunity for local government to claim authority by implementing rules and policies in managing their own resources and society based on their interests, which were mostly concealed by discourses of local wisdom/tradition (adat). “After decades of marginalization and dispossession by a predatory central state that did not recognize customary claims to resources like land, water and forest, the political changes of the late 1990s provided an opportunity for local political actors to reaffirm customary claims, often related to regional or ‘indigenous’ identities” (Roth, 2014).

Subak as the gate of change is being put in a new control mechanism through programs and policies which include the reward system so that the subaks are competing against each other to be the best in the eye of government; which means, those who manage to implement government’s programs

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the best, get more rewards in term of funding, programs, and also the prestige of being labelled as the best subak; restricting their ability to be critical toward government’s programs. In the end, it depends on the mentality of the subak leaders who can become catalysts of transformation.

The presence of tourism also has its impact to the perception of the actors in the governments. Grounded by the promotion of Bali’s ‘uniqueness’ as a part of promoting Bali’s sustainable tourism development, the government encourages especially in Ubud area which is known to be the spiritual-health rejuvenating destination which provides healthy organic food and enhanced connection with the spiritual through nature; this creates markets for healthy organic products. Being a ‘unique’ touristic spot, made many of former tourists decided to move in bringing their ideas and disseminate them through NGOs, which then influenced and facilitated the farmers in shifting to organic practices. Most of the sustainable farmers are related to NGOs and under the Simantri program of government. Both government and NGO provided access to materials, knowledge, and even markets that are needed by the farmers to support their organic practices.

**Actors’ responses**

The contestations of agricultural modernization in the case of Gianyar surfaced from the two-sided perspectives that both come from personal experience of actors who are connected and framed in different settings. Both of these perspectives, however, are mostly focused on certain elements without taking other elements into account (e.g. productivity and economy over culture, environmental and social, and vice versa). Those who are in favour of modern agriculture practices chose the production and economic aspect; while those who are against the agricultural modernization approaches based their arguments on culture, environmental, and social elements.

Actors who are in favour toward agricultural modernization approaches have the tendency to be pessimistic toward alternative agriculture practices by thinking that it is only another way to fulfil the desires of tourists. This thought, however, is also influenced by the lack of trust they have toward the government who are currently putting their efforts in promoting sustainable agriculture practices through Simantri program. But interestingly, they also showed that their pro-behaviour toward the agricultural modernization was due to the trust that they put in the government. These contradicting reasons showed the presence of plural images of government in their head. This pluralism is presumably based on the comparison of government under two different leaderships: the first one is the New Order era which although authoritarian and corrupt, have managed to made real changes through some more structured and clear programs; and the second the ever-changing governments in the reformation era, which are less involved in the field than the previous one, together with the publicly transparent corruption behaviour creating an untrustworthy image.

**Macro – micro linkages**

Agricultural modernization is contested at the level of policy makers, project implementers and farmers, due to the different perspectives towards the question which path is the best for developing agriculture. Policy makers who are in favour of agricultural modernization tend to bring up the macro level considerations of agriculture such as feeding the population and monetary based farmers’ livelihood improvement which are all based on increasing farm productivity through farming intensification and modern agricultural practices. The conventional farmers came up with their distrust toward the organic methods and the institutions who are trying to promote it; and also, the difficulties in shifting towards it. On the other hand, those who are not in favour of agricultural modernization talk about socio-environmental issues, sustainable practices and farmers’ autonomy. In this paper, it can be seen that both conventional and alternative farmers use understandable ways of reasoning in choosing their own farming styles. Each farmer has different life experiences and capabilities to process and perceive their past, present, and future. All these combined create a fundament in their way of thinking that made them stick to or change into what they believe to be their ‘ideal’ way of farming.

The pro agriculture modernization actors’ cynical perspectives toward the efforts to shift to organic farming are based on the distrust in organic practice’s ability to fit in the current modernized era; which, from the government’s perspective, in relation to unaffordable drops in productivity during the process of shifting which in will hampers the consumers in term of supply and price; and from the farmers’ side, is associated with its excessive shifting process both administratively and
practically, uncertainty about markets, their lack of knowledge of organic practices, and most of all, their ‘addiction’ to the convenience of conventional farming (e.g. easy access to inputs, govt.’s aid in term of subsidies and regular free inputs, clear market, and less complicated practices). This means that the structure has put them in their ‘comfort’ zone which indirectly restricts the farmers’ ability to be autonomous.

The externalization of inputs also created new demands for knowledge (i.e. of how to appropriately use the inputs in order to reach optimum productivity) which can only be provided by external institutions such as the government. However, in the current situation, shifting to organic practices also requires external knowledge since most of the farmers have already replaced their traditional practices with conventional farming. Moreover, the average age of farmers is dominated by the generation who have been practicing conventional agriculture practice for decades and it is difficult for them to go through the process of change.

As Dijk and Ploeg (1995) stated that “Locality is not considered as a resource for local-specific practices anymore, the focus is on global parameters: market trends, newest technologies, agricultural policies – rules and subsidies.” (van Dijk & van der Ploeg, 1995), we found this statement fits well with the perception of actors who are in favour of agricultural modernization (esp. the dinas representative).

While those who are against agricultural modernization approaches mostly depart from their sense of belonging for their nature, culture, and tradition. They felt that their nature and culture are being threatened by agricultural modernization processes; thus, they leaned towards alternative ideas of farming as their solution. The propagation of THK (Tri Hita Karana, Balinese philosophy of life) and Ajeg Bali movement might have influenced their perspectives by enhancing their sense of Balinese, but actually, most of them have been having these thoughts before the THK become as famous as today. However, they tend to forget that agricultural modernization is not only about the negative sides that are brought by the chemicals, but also there are some positive sides such as the mechanization which is indeed helpful in dealing with the labour problems.

In this case, both perspectives are not only raised by their own consciousness, but also are strongly supported by the structures where they practice their farming. In the farmer’s level, both perspectives, supported by the structures lead the farmers to practice different ways of farming.

The manifestations of agricultural modernization in the Balinese context are Janus-faced, and are characterized by the existence of different (and often contradictory) perspectives towards it. The top-down style of agricultural development had been weakened by the time that the New Order regime fell in the late 1990s. Since the fall of Soeharto and subsequent political-administrative reforms, many initiatives are proliferating. Freedom has indeed (to some extent) become enhanced. Currently, in Bali the government is actively promoting organic farming alongside conventional farming methods. Even though the proposed way of farming might be different from the earlier Green Revolution packages, the method of dissemination is more or less the same as before: farmers are expected to follow the proposed prescriptions. However, this provides farmers with more options than before, and they can actually decide on their own which proposed prescriptions they are willing to follow.

Conclusion

In the context of Balinese agriculture, institutions, market, technologies, tourism, and cultures pose both hindrances and opportunities for the emergence of different farming styles. Farmers actually have a variety of options for choosing to either practice conventional farming or for going organic, since both of the proposed prescriptions are supported and also restricted by the structural elements. However, in this case, we can see that farmers are using their agency in creating their own room for manoeuvre by choosing which structures they want to be attached to. This agency is not only influenced by the ideas that came from outside (e.g. institutions and market), but also their life experience, observations and even their beliefs.
The mainstream ideas that are hovering among the development actors are still that the farmers are always seen as passive, unknowledgeable actors who always need to be helped by the experts in order to improve their welfare. Exogenous development has always been the focus in most experts’ projects brought by agricultural modernization processes. The problem with exogenous development is that it has an end, a goal, it is limited by time and external agendas, not to mention the well-known corruption as part of our culture and socio-political system. The example would be the government effort to promote organic farming for rice in subak Wengaya Betan which, although considered successful at the production level but less so in marketing its produce in the end met its failure. Furthermore, our respondents have pointed out the failures of experts’ projects in developing Balinese agriculture due to its inability to optimise the ever-complex constellation. It doesn’t mean that it has to be stopped, but exogenous development policies and programs need to be improved and adjusted to local processes and structures.

Thus, the last remark that we would like to make in this paper concerns future research opportunities. In the end, it is not only about going organic or conventional, but about whether the development process is being carried exogenously or endogenously, and whether the development actors have the synergy and sincere will to help the farmers. From our field observation in Gianyar, modernizing agriculture is not about promoting conventional agriculture anymore, but rather about promoting sustainable farming practice. The government and NGOs in Bali are actively promoting organic practices, even by strategically utilising (invented) Balinese beliefs in their agricultural policies (e.g. the propagation of THK, and its ‘obligatory’ presence in the subak agenda); and some farmers are actually reluctant and even sceptical toward it. This heterogeneity is often only paid scant attention to, while it might be important for researchers to identify the potentials of endogenous development process that might contribute to formulating policies for future agriculture development.

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