

Turning point the concept of rural development in Indonesia from top-down to bottom-up strategy

T Pranadji¹, Wahida¹ and I S Anugrah¹

¹Indonesian Center for Agricultural Socio Economic and Policy Studies, Jln. Tentara Pelajar No. 3B, Bogor, West Java, Indonesia

E-mail: wahida.maghraby1170@gmail.com

Abstract. The Asian financial crisis of 1997 followed by political turmoil in 1998 has not given a significant change to agriculture and rural development in Indonesia. Throughout history, Indonesia has implemented the development of the agriculture sector under a top-down strategy. The success of this approach is marked by the achievement of rice self-sufficiency in 1984. Moreover, since the mid 1990s, Indonesia has embarked on various economic reforms that led to globalization. The Indonesian economy has become more integrated into the global economy and world market. Unfortunately, these changes were not translated properly to rural areas as there were no transition time for rural communities to adjust their economic condition to these changes. The multiplier effect that was expected as a consequence of globalization within rural economic systems was faced with difficulties such as paternalistic structure led by the elites. As a result, rural areas experienced with income gap, weak agriculture development, corruption, social problems and poverty. Meta-analysis approach is used to examine the approach that has been used in implementing program and projects. Findings from the articles showed that there is a need to do the re-orientation to the approach and increased the independency at the farmer level. The idea to develop national agriculture and rural development strategies that is based on a bottom-up approach, followed by an agrarian reform, as well as the formation of social capital and redefinition of local autonomy are the recommendation that high level decision maker could consider.

1. Introduction

The implementation of agricultural development has led to the different interests of a nation. Not one country will experience the same set of problems. On the contrary, the hurdles that come with implementing a new development strategy will differ from country to country. As a result of agricultural development, there is a group of people who are continuously exploited since the colonial economic era. This has ranged from developmentalism to neoliberalism, and is still present today. Consequently, this development has created a perception that people who live in rural areas are always living in poverty, having poor nutrition and health conditions, as well as being uneducated. Ironically, the government and the state have allowed for this kind of perception to grow within society and continue to be absent (absence of the state).

Prof. W.F. Wertheim named this condition as the sociology of ignorance. This theory involves policy makers, academician, politician, economist, sociologist and any field that places human or society as a subject or basic foundation in a classification, historical values, theoretical or practical. Other researcher illustrated that there is large neglected aspect of development in particular the part played by western scientific knowledge. Development known as a very profitable not just to the western industries involved



Content from this work may be used under the terms of the [Creative Commons Attribution 3.0 licence](https://creativecommons.org/licenses/by/3.0/). Any further distribution of this work must maintain attribution to the author(s) and the title of the work, journal citation and DOI.

Published under licence by IOP Publishing Ltd

but also to governments who received aid. Some evidences proofed the failures of development such as irrigation project at Sahel region in Africa and dam development in Timor Leste, Indonesia [1].

Before rural areas change into the debris of civilization, a new strategic plan is needed that is different from those that have been implemented by the previous government. In order to establish a rural area as the main focus of agricultural development, it requires fundamental changes by shifting the approach from top-down to bottom-up strategy. Thus, this strategy needs to be followed by agrarian reform, financial support, social capital and culture formation [2].

This paper elaborates on first, the dynamic of the land tenure system; second, an agriculture financing assistance (credit scheme) with new orientation from commodity focus to beneficiary focus in this case smallholder farmers; third, development of partnership scheme that is based on social capital with an aim to develop a sustainable farmer corporation.

In 1976, Prof. Sayogyo suggested the establishment of a rural corporation that was based on collective action and owned by smallholder farmers. Collectively, there are two benefits that existed from his ideas, first, to restore the strategic function of land and second, to establish rural economies [3]. The objectives of this paper are to examine the approach that has been used in agricultural development in Indonesia for the last 30 years and to provide recommendation from three different issues that determine agricultural development in rural areas.

2. Materials and methods

This paper used the meta-analysis approach, which heavily elaborates from journal articles and other sources of information. Review articles have been observed in order to understand the impact of agricultural development and how to implementing new strategy to promote a better livelihood in rural areas

3. Results and discussion

3.1. Inequalities in land tenure systems

Land is an important asset for farmers. It is very unfortunate that the majority of agriculture production is dominated by small holder farmers or land laborers. Sajogyo [3] and Geertz [4] illustrated that in 1903 the proportion of farmers who cultivated land less than 0.5 hectares was around 45%, increased to 52% in 1963 and 61% in 1973. Meanwhile the proportion of farmers who owned and farmed on the land that more than 1 hectare was around 22% in 1903, slightly decreased to 21% in 1963 and remained 16% in 1973. While, almost 2 million households owned only 0.1 hectares. In more recent updates, White [5] confirmed that the percentage of sharecroppers in one village in Kulonprogo has increased from 46% in 1972 to 60% in 2017. Furthermore, when there is a scarcity of land in rural areas then it is very difficult to determine which agriculture activities will be selected to be developed.

From social and economic perspectives, Ambarwati et al. [6] described the comparison of landholding and land area control between 1963–2003. The number of agricultural households controlling land almost doubled from 12.2 million to 24.3 million while total area controlled also increased with a similar trend from 12.9 million to 21.5 million hectares. The authors also have shown that the share of marginal farm households (controlling less than 0.5 hectares) have increased from 44 (1963) to 51% in 2003.

It is important to acknowledge that the availability of land and their contribution to rural household welfare is very concerning, as farmers experienced land scarcity and land fragmentation from time to time. The government anticipated this by developing a Basic Agrarian Law in 1960 (UU Pokok Agraria). However, since the law entered into force, the Indonesian government has never maximized the potential of this law to regulate land tenure systems in Indonesia. Meanwhile, other countries like South Korea, Taiwan and several others in Latin America have implemented agrarian reform in their agricultural development program. Many experts believe, since the Basic Agrarian Law has not been implemented by the government, the land tenure system is highly correlated with inequality and poverty in rural areas [6].

3.2. Credit scheme and self-sufficient farmers

In the process of agricultural development and securing national food availability, Indonesia has to deal with challenges and food problems. Indonesia is ranked 65th in the Global Food Security Index with a score of 54.8. This index contains 113 countries, among which are ASEAN members: Vietnam (62), Thailand (54) and Malaysia (40). The gap is very wide, in comparison to Singapore who is ranked number one. However, Indonesia's ranking is slowly improving, in 2017 it was ranked number 69 while in 2016 positioning in number 71.

The Indonesian Minister of Finance, Sri Mulyani, in 2016 revealed that the position of Indonesia at number 71 has triggered the government to increase the government budget for agriculture subsidy. In the state budget of 2019, the government has allocated 29.5 trillion rupiah for this subsidy with the aim to achieve food sovereignty [7]. This subsidy is considered as the highest among other non-energy subsidies, the value itself is equivalent to 45.88% from the total non-energy subsidy in the state budget 2019 (IDR 64.3 trillion).

Another important finding is that many households in rural areas are highly dependent on agricultural subsidy. Ironically during planting season, farmers are worried whether or not they could start to farm in this period. This concern is caused by the high cost to start the planting season. Based on Indonesia Central Bureau of Statistics, total production cost for planting on food crops commodities are high. For example, in 2015 each farmer allocated 12.7 million rupiah per hectare for rice paddy and 12 million rupiah for maize. The planting cost has an increasing trend and more likely to continue increasing in the future due to cost of inputs, labor and other factors of production [7].

This study illustrated that farmers spent almost 20 million rupiah per hectare for total production cost. The amount of production costs is dependent on land size. The average land size for rice farmers in Java is around 0.02–0.03 hectare and sometimes the cost for planting on a small size is higher than the cost per hectare [7].

In farming activities, the largest cost is allocated for labor and land rent. Fertilizer and seeds only contribute to a small part of total production cost. Considering the majority of farmers are land-less farmers, most of them are involved with land rent to guarantee production in every season. The cost for land rent is quite expensive and it contributes to a significant share of costs. Apart from land rent, labor costs are also considered as the highest share to total production cost. In general, farming costs can be overcome if farmers have access to (borrow) money or obtain financial support like rural credit from a bank or other financial institutions. However, to date, farmers still have limited access to financial sources.

The vulnerability of farmers in repaying loans is a strong reason for farmers to be neglected in getting loans from banks or other conventional financial institutions. Another obstacle is many farmers lack-off or have limited collateral (ownership of farmland) that can be used as guarantee for the loan provision and this limits their access to formal financial institutions. Even though this access to capital has been provided by the government, it is not always accessible by smallholder farmers. Farmers who owned land with certificates are more likely to have easier access to this.

There are two options in order to fulfill farmers' capital needs for rural credit, namely formal and non-formal financial institutions. Formal rural credit institutions generally provide funds with low interest rates, such as BRI Unit Desa and Bank Perkreditan Rakyat with interest around 24% and 36% per year. However, small farmers cannot access it due to several obstacles: (a) farmers do not have collateral for land certificates, (b) monthly payments are not in accordance with rice farming which provides a seasonal production cycle and (c) small farmers are generally not familiar with administrative procedures, significant paper works and sometimes considered as complicated. Currently, formal institutions are only used by wealthy farmer groups in villages such as rice milling owners, input traders and other business actors. In contrast, small farmers only have access to informal rural credit institutions because they do not require collateral and acquisition procedure is very easy, even though these types of money lenders charge high interest rates between 24 to 80% per year. Umali [8] demonstrated that one of main reasons farmers lack access to formal financial institutions is that the benefits of low interest rates are outweighed by the more time and cost involved in obtaining credit. In addition, informal

institutions also provide several advantages: (a) there are relatively no transaction fees, (b) the frequency of contact is faster between 1–3 times and (c) the length of credit processing is between 1–3 days.

Around 70% of Indonesian rice farmers, especially smallholders, are classified as low-income households [9]. The existence of credit is really needed by farmers for production purposes, daily living expenses before the crops are sold and for other social gatherings. On average farmers owned very small pieces of land, even others are called land-less farmers. Under these circumstances, followed by high wages and limited job opportunities outside the growing season, most farmers cannot meet their living expenses from one season to another without having a loan. Financial assistance (formal and informal) has become part of the way of life as farmers and is considered as the economy of land-less or poor farmers, as explained by Mears [10]. In his article, he confirmed that credit is really needed by Indonesian rice farmers for several purposes, namely to support daily living expenses before the crops are sold and for social gatherings that have become a habit. The main problem in providing credit to smallholders is the gap between distribution and recipient of the credit.

Many capital institutions with various credit schemes are offered to farmers, but in reality they can only be accessed by certain community groups, to a certain group which is dominated with small holder or land-less farmers, they are still experiencing difficulties. Thus, in the rural credit market there is market segmentation, because each has its own unique characteristics. Research by Mayrowani et al. [11] and Syukur et al. [12] shows that there is limited access to commercial credit for farmers in the rural areas (lack of farming capital).

This reality also makes farmers' access to financial institutions currently very limited. As a result, many farmers are more likely to borrow from moneylenders or giving out their fields at low prices had to be chosen by farmers to be able to continue planting. There are some farmers who are starting to look at cooperatives or getting financing from the government, but the largest portion is still in the traditional lending system, “ijon” systems also very popular in rural areas. The practice of “ijon” is admitted to selling projected production in advance to collectors and to rice mill. In addition to planting capital, this practice is carried out so that agricultural production is ensured to be absorbed when harvesting takes place, even though it has been confirmed that farmers' income has been cut in half due to the “ijon” practice, compared to if the farmers sold it themselves.

Based on Susenas data (2016) [13], 52% of farmers lack access to commercial credit and are forced to rely on their production from their own capital, moneylenders, and advanced-lenders in fact dominate all over Indonesia (pengijon = trader who purchases commodities in green or not yet harvested). Meanwhile, only 15% of farmers have access to commercial credit from the banks. Most of it is obtained by farmers of estate crops, such as sugarcane. For food crops only 1.7% of farmers have obtained credit for their agricultural production. Based on Agricultural Statistic Publication (published by the Ministry of Agriculture), the total number of farmers in 2016 reached 35.09 million people. Almost half of these farmers (44.97%) produced food crop commodities and their access to commercial credit from the bank is only 1.7%.

Experience shows the role of agricultural credit is very important in the development of the agricultural sector. Credit is one of the main supporting factors for the development of technology adoption in the farming system. Agricultural credit has not only played a role as facilitating factor for but also serves as a critical point of agricultural development [14]. The role of credit as a facilitator of agricultural development includes (1) assisting small farmers in overcoming limited access to financial support with relatively low interest rates, (2) reducing farmers' dependency to intermediary traders and moneylenders so that they can have freedom in improving the production as well as marketing system of the commodities, (3) income transfer mechanism to promote equity, and (4) incentives for farmers to increase agricultural production. Meanwhile, as a critical node of development, credit functions effectively to support the expansion and spread of technology adoption.

Farmers themselves become objects that are considered vulnerable by formal financial institutions (bank) so that the proposed loans are often not disbursed. There are at least four reasons related to this condition such as (1) wrong target of credit provision, (2) interest subsidies, (3) bureaucratic procedures, and (4) the high risk of moral hazard to farmers. These four factors lead to high non-performing loans

(NPLs) of banks, unfulfilled targets, and unsustainable lending. This is in accordance with the opinion of which states that when credit is misused, problems will arise greater than if the credit is not used at all.

The strategic role of credit in agricultural and rural development has prompted the government to determine credit as an important policy instrument. At the conceptual level, according to Richardson [15], credit is expected to increase the ability of farmers to purchase inputs so that crop productivity increases. Given the urgency of this credit, in the planning process of agricultural development, the aspect of capital is one of the important factors that always receive special attention from the relevant parties. Richardson [15] demonstrated that good credit management requires a knowledge of credit, efficient business planning, and wise decision making.

In the era of modernized agricultural technology, mobilization for factors that lead to capital intensive for both agricultural equipment and production facilities become a necessity [16]. For agricultural actors (especially farmers), this situation creates problems because most farmers are not able to finance a capital-intensive farming with their own funds [17].

With this condition, the independence of farmers in agricultural business activities is very important, to reduce various subsidized credits and minimize negative impact from financial support. Subsidies and the provision of capital through the pattern and credit system in agricultural businesses are basically only an initial stimulant to encourage farmers to become independent. However, due to various conditions and the diversity of financing capabilities at the farmer level, credit sourced from various institutional providers, both formal and non-formal, is still very much needed. In the framework of empowering farmers and rural communities at large, the pattern and system for implementing the credit scheme is formulated to encourage the independence of farmers in actualizing themselves related to capital growth to finance their activities.

3.3. Social capital-based partnership system and farmers' corporation

Initiating rural development based on a bottom-up approach has been carried out in several countries and should no longer become impossible. This approach relies on the social capital owned by the village community. In Indonesia, social capital values have grown and internalized among rural communities. This condition should be used to facilitate the implementation of a bottom-up approach in the concept of agricultural development in rural areas. Santoso [18] conveyed that there are three main reasons why social capital is important, firstly there is trust between community members in the village, which is the main capital in solving various problems in the field that require collective solutions; second, trust also makes it easier for rural communities to interact repeatedly with fellow citizens so that the acceleration of rural development can be carried out; Third, the existence of common interests among rural communities will raise awareness and accelerate the process of agricultural development which in return it can provide maximum benefits for rural development.

The concept of partnership is one of the strong variables in achieving rural development goals. The Ministry of Village, Development of Disadvantages Region in 2020 used the concept of partnership in implementing and revitalizing sustainable development goals in rural areas. Social capital owned by the relevant parties can be used as a driving force and assist the process of drafting, implementing and monitoring the progress of rural development programs. Furthermore, the concept of a sustainable village is also used in the process of disseminating technology and knowledge, especially various research results and innovations that can help farmers increase their income.

In 2017, the President has mandated farmer corporations to be used as an approach in the implementation of agricultural development. The objectives are to increase farmers' production and income. In line with these goals, the development of farmer economic institutions also become the target of agricultural development for the new cabinet (2020–2024). The Ministry of Agriculture leads this mandate by introducing the concept of farmer corporation. Since the first time, pilot projects have been carried out and involve several farmer groups and an association of farmer groups. The basic idea of forming a corporation is an effort to prepare farmers to play an active role in the downstream sector of their farming business. Aspects of strengthening business and strengthening institutions (organizations)

are two important steps taken in developing smallholder corporations. The bottom-up approach is believed to provide more significant benefits in developing smallholder corporations.

4. Conclusions

Rural development that focusses on agricultural sector has not always delivered an adequate and expected result. Inequality access to agricultural factors contribute significantly to that achievement. Meanwhile, commercial credit assistance that is created to improve the welfare of rural farmers is not able to function well. This is happened due to the lack of independency at the farmer level when implemented the agricultural economic activities. Having an access to credit is highly needed by farmers. In many cases, the administrative requirements that imposed by credit institution do not suit the farmer. Thus, it is important in having the reorientation of the procedure as well as the target of the beneficiaries. The sharecroppers should become the main target of government credit program.

Farmer corporations determine the sovereignty and the competitiveness in rural economies. When competitiveness is not formed means the farmers are not able to establish their sovereignty in managing economic activities in rural areas. Some findings indicated that market determines the rural economy. It gives signal that reorientation of strategy and approach in implementing agricultural development in rural areas should be taken.

When the poverty, economic inequality, and competitiveness are not formed in rural areas then the government is required to reconsider the concept of agrarian reform. The case in Indonesia shows although Indonesia Agrarian Law entry into force in 1960, to date Indonesian government demonstrated the reluctant and limits its implementation. Previous facts suggest the government and political decision makers in the future need to re-enact agrarian reform before changing the rural development strategy from top down to bottom up.

References

- [1] Hobart M 1993 *An Anthropological Critique of Development: The Growth of Ignorance?* (London: Routledge)
- [2] Tjondronegoro S M P 1978 Recent Indonesian rural development: dilemma of a top-down approach *Southeast Asian Aff.* 139–48
- [3] Sajogyo 1974 *Modernization without Development in Rural Java (A contributed paper to the study on changes in agrarian structure)* (Bogor: Bogor Agricultural University)
- [4] Geertz C 1983 *Involusi Pertanian: Suatu Proses Perubahan Ekologi di Indonesia* (Jakarta: Bhratara Aksara)
- [5] White B 2020 In the spirit of Kampto Utomo: Sajogyo sebagai ilmuwan sosial yang berkeprihatinan, konsisten, dan memberi ruang pada perbedaan *Sajogyo and Pudjiwati Sajogyo Lecture*
- [6] Ambarwati A, Harahao R A, Sadoko I and White B 2016 12. Land Tenure and Agrarian Structure in Regions of Small-Scale Food Production *Land and Development in Indonesia* ed J F McCarthy and K Robinson (Singapore: ISEAS–Yusof Ishak Institute) pp 265–94
- [7] Harini F 2018 Meski Dianggap Solusi, Bunga Tinggi Bisa Jadi Jebakan Petani *Valid news*
- [8] Umali D L 1978 *Small Farmers Development Manual. Volume I. Field Action for Small Farmers, Small Fishermen and Peasants* (Bangkok: FAO Regional Office for Asia and the Far East)
- [9] Suryana A, Mardianto S and Ikhsan M 2001 Dinamika Kebijakan Perberasan Nasional: Sebuah Pengantar *Bunga Rampai Ekonomi Beras* ed A Suryana and S Mardianto (Jakarta: LPEM-Fakultas Ekonomi Universitas Indonesia)
- [10] Mears L A 1961 *Rice Marketing in the Republic of Indonesia* (Jakarta: The Institute for Economic and Social Research)
- [11] Mayrowani H, Dermoredjo S K, Wahida, Prasetyo B and Swastika D K 1998 *Kajian Ketersediaan dan Pemanfaatan Skim Kredit untuk Menunjang Agribisnis di Perdesaan* (Bogor: Pusat Penelitian Sosial Ekonomi Pertanian)
- [12] Syukur M, Sugiarto, Hendiarto and Wiryono B 2003 *Analisis Rekayasa Kelembagaan*

- Pembiayaan Usaha Pertanian* (Bogor: Pusat Penelitian dan Pengembangan Sosial Ekonomi)
- [13] Badan Pusat Statistik 2016 Data Survei Sosial Ekonomi Nasional (SUSENAS) Kor 2016 Sektor Kegiatan Sosial dan Kesejahteraan Rakyat *Badan Pusat Statistik*
- [14] Syukur M, Sumaryanto and Sumedi 1998 Kinerja Kredit Pertanian dan Alternatif Penyempurnaannya untuk Pengembangan Pertanian *Monograph Series No. 20* ed T Sudaryanto, I W Rusatra and E Jamal (Bogor: Pusat Penelitian Sosial Ekonomi Pertanian)
- [15] Richardson W B 1983 *Managing the Farm and Ranch* (Reston: Reston Pub. Co.)
- [16] Ashari 2009 Optimalisasi kebijakan kredit program sektor pertanian di Indonesia *Anal. Kebijak. Pertan.* **7** 21–42
- [17] Syukur Mat, Mayrowani H, Sunarsih, Marisa Y and Fauzi S 2000 *Peningkatan Peranan Kredit dalam Menunjang Agribisnis di Perdesaan* (Bogor: Pusat Penelitian Sosial Ekonomi Pertanian)
- [18] Santoso T 2020 *Memahami Modal Sosial* (Surabaya: Pustaka Saga)

Reproduced with permission of copyright owner. Further reproduction prohibited without permission.