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Paper for discussion

Trends and challenges for developing next generation of business and finance schemes for smallholders

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Introduction

The agriculture sector in Indonesia is experiencing a major transition. While the Indonesian population increased from 206 to 237 million people in the period from 2000 to 2010, the number of smallholders decreased from 31 million in 2003 to 26 million in 2013 (BPS 2014). One important trend that may affect agricultural sector development is the increasing share of older people who are smallholders. The 2013 agricultural census shows that about 12% of smallholders in Indonesia are aged above 65 years, and 60% of the smallholders are above 45 years old (BPS 2014). There are indications that older people will remain in the agricultural sector, as younger people tend to move out to other sectors. Smallholders are aging, and younger people are not interested in farming. The challenge for the Government of Indonesia is to formulate policy options to encourage the next generation of smallholders to stay in the agriculture sector (Ngadi 2014). There are some notable exceptions. For example, in the oil palm sector, the profitability of the crops has attracted new smallholders to cultivate the crop, either by opening new land or converting existing crops into oil palm (Feintrenie et al. 2010). Crops with strong export orientation, such as coffee and cocoa, may follow similar trends.

Young people are not interested in the agricultural sector because smallholder agriculture is perceived to produce a low income due to low productivity. Smallholder agriculture has low productivity because of a lack of good planting materials and other inputs, and poor agricultural practices (Sahara et al. 2017). Smallholders require capital for clearing or preparing the land, planting, maintaining, harvesting and marketing their products. Smallholders cultivating estate crops have an additional challenge, as they have to wait for some years before starting to receive income from their harvest.

Many smallholders do not have proper documentation of their land ownership. They only hold a letter from the village head as their proof of ownership of a plot. Some of them acquire their lands through informal land transactions. They also find that the procedure for land certification and transactions is too complicated (Pramudya et al. 2017). The existing loan system creates challenges in terms of loan maturity. On the other hand, informal and traditional financing sources provide credit with more relaxed conditions than those imposed by banks and other formal financial institutions. Some credit comes from family, agricultural input sellers or buyers of agricultural products. However, they can only provide small loans and impose high interest rates (Nugroho et al. 2013, Sahara et al. 2017).

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Banks and other formal financial institutions are not interested in financing smallholders. The agricultural sector is seen as high risk for nonperforming loans, as production and prices are volatile (Bank Indonesia 2005, Bank Indonesia 2016). Agricultural production cycles are not in line with banking cycles that could affect repayment of the loan. Banks also see that smallholders have small plots, which increases the transaction costs for the banks if smallholders are served individually (Bank Indonesia 2016).

Another challenge that the smallholders face is an increasing demand for commodities that are produced in sustainable manner. Consumers in importing countries are demanding commodities that comply with environmental, social and governance standards. On the other hand, the Government of Indonesia has taken up financing as a means to support sustainability through the issuance of the Financial Service Authority (Otoritas Jasa Keuangan; OJK) regulation on sustainable financing, which requires banks and financial service providers to apply sustainable financing principles in their operations.[1]

Smallholders' land ownership and cultivation processes are undocumented. Smallholders also have to pay high certification costs periodically to maintain their certificates (Hidayat et al. 2016). With these challenges, smallholders are at risk of being left out of commodity production because they cannot comply with sustainability certification. Many success stories of smallholders that are able to comply with sustainable standards show heavy reliance on external support from government, donors or companies. Whether the smallholders can go beyond the first round of certification will determine the real capacity of smallholders to be part of the certification system.

New generation of financing schemes

While there are many studies on the challenges smallholders face in accessing financial services, there are not as many studies on the borrowing behavior of smallholders and their attitude toward risks. One lesson from the government smallholder timber plantation program was that smallholders were not interested in standardized loans because the scheme did not match the amounts that smallholders are willing to borrow (Nugroho et al. 2013). Understanding smallholders' borrowing behavior would help banks and other financial service providers to design financing schemes that adapt to the smallholders' needs and take into account their risk profiles.

The understanding that lack of a land title can limit smallholders' access to credit has led to land titling programs in a number of countries. However, the result of these programs varies. Perceptions are changing and lending agencies no longer see land titles as collateral in terms of their value, but rather as a signal about the borrowers' capacity to repay the loan. Therefore, lending agencies look at other factors beyond land title. This leads to the conclusion that land titling alone will not be sufficient to solve smallholders' lack of access to credit (Domeher and Abdulai 2012, Dower and Potamites 2014).

There are various sources of smallholder financing that can be categorized by the type of lender (Nugroho et al. 2013, Pramudya et al. 2017, Sahara et al. 2017, Wulandari et al. 2017). There are three types of financing: (1) formal banking sector; (2) formal non-banking sector; (3) informal lending. Formal banking lending includes, among others, loans from the commercial bank and rural credit banks. Formal non-banking lending includes corporate social responsibility programs, microfinance agencies and cooperatives. Informal lending includes lending from family and trading partners (suppliers and buyers) (Nugroho et al. 2013). Government lending lies in formal lending, although there are variations between banking-connected loans (e.g. the People Business Credit [***Kredit Usaha Rakyat***; KUR]), and government-executed loans (e.g. loan by the Forest Development Financing Center [***Pusat Pembiayaan Pembangunan Hutan***; PPPH]). Public sector financing is limited by budget and scope (Sahara et al. 2017). Smallholders who have proper documents and records can access credit through formal banking lending. They can apply for both investment credit (for establishment) and working capital credit (for operation and maintenance). Among them, smallholders that are tied to companies (e.g. those under plasma schemes in the oil palm sector) have an advantage compared to independent smallholders because they receive guidance and facilitation from the companies. Independent smallholders receive lower output prices, they have to apply for the loan individually and they have higher production risks, as their products might be declined due to quality (Sahara et al. 2017).

There has been an increasing trend in digital technologies for financing that have the potential to address smallholders' needs. These include peer-to-peer financing and balance-sheet financing. In peer-to-peer financing, a service provider connects investors and borrowers. Peer-to-peer financing providers have field staff that assess the credit worthiness of borrowers and score credit based on their assessment. The service providers present the credit score to potential investors. Once the investor (individual or institutional) chooses to invest in a borrower, the investor places the money into an escrow account to ensure that the provider does not misuse the money. Providers are increasingly using digital technologies to monitor the progress of loan repayments, and use the data to improve the accuracy of the credit scoring. Meanwhile, in balance-sheet financing, the provider acts as lender, and the investor invests their money in the service provider. In this case, it acts more like formal non-bank lending scheme but with different technologies

1 OJK Regulation Number 51/POJK.03/2017 on the application of sustainable financing for financial service providers, issuers and public companies.

(Pratama 2016). Peer-to-peer financing and balance-sheet financing are increasingly popular, and are regulated by OJK. By mid-October 2017, there were 24 registered companies under the supervision of OJK.[2]

Another financing scheme that may be suitable for smallholders is a lending model without collateral with personal or collective guarantee. For example, PPPH provides a scheme to tree-planting smallholders, where it makes an agreement with individual households in a certain jurisdiction (e.g. village), but it applies a collective guarantee, where the whole group must bear any default by an individual (Nugroho et al. 2013). Other schemes provide health insurance as an add-on to the loan (Sucipto 2017). This scheme, on the one hand, shares the risks of an individual to a collective, with the expectation that there will be social control to ensure that loan is repaid. On the other hand, it is not easy to manage, especially where members of the groups are of unequal social status.

These financing schemes target informal sector actors. The loan process is simpler than the banking sector. Investors and borrowers do not have to meet face to face. Transaction costs are reduced as the borrower does not have to go to the office of the service provider. On the other hand, the loan size is currently small, although the OJK regulation set out a ceiling of IDR 2 billion per loan (Pratama 2017). However, the IDR 2 billion threshold is arguably where most smallholders are located in terms of loan size. At the moment, these schemes are still emerging in Java and will probably become widespread across the country. Most of the borrowers are currently small-scale manufacturers and traders. Some providers focus on women's empowerment, and so prioritize women borrowers.

Another financing scheme is value-chain financing (Bank Indonesia 2016). A study by Bank Indonesia highlights some key differences between value-chain financing and conventional financing. For example, the financing principle in value-chain financing is a cooperation or partnership contract, while, in conventional financing, it is based on the needs of the borrower (i.e. smallholders). In value-chain financing, the contract can be used as collateral, while conventional financing requires the borrower's assets as collateral. This implies that value-chain financing shares the risks between the lenders and borrowers, while conventional financing puts the risk on each of the parties (Bank Indonesia 2016). This scheme has been widely introduced by commercial banks to their corporate clients, and has been tested in food and horticultural crops. The nucleus plasma scheme in estate crops might adopt some of the characteristics of value-chain financing, where banks provide loans to smallholders through cooperatives and smallholders repay the loan to the cooperatives, which later repay the loan to the banks.

2 https://sikapiuangmu.ojk.go.id/FrontEnd/CMS/Article/10398

What is required for the development of business models

The previous sections present two important trajectories. First, smallholders could be left out of the agriculture sector as available formal financing schemes are not compatible with their characteristics. They may have to rely on informal financing from families, suppliers, buyers or other informal actors, who can provide relatively small loans with high interest rates. On the other hand, smallholder agriculture is very important in Indonesia in terms of production, as arguably most agricultural products in the country are produced by smallholders. Therefore, strong commitment and efforts by government, donors and the private sector is needed to help keep smallholder agriculture alive and attract young people to engage in it.

Second, new financing schemes are emerging that could address the needs of smallholders. A desirable financing scheme for smallholders is the one that can adapt to the requirements of smallholder agriculture. At the same time, smallholders are seen as informal actors, where their individual characteristics are not visible except through their products, which could pose a risk for lenders.
Efforts to bridge the gaps require a convergence between what various financing schemes can offer and what smallholders need to change. On one hand, banks or other financial service providers could re-evaluate their risk profile in order to incorporate more smallholders into their credit portfolios. On the other hand, smallholders should start to make their individual or household characteristics visible by, for example, clarifying their land titling and recording their practices (Sahara et al. 2017). After all, accessing credit is a business activity and they should follow proper business practices.

The rise of the new models of financing provides new opportunities for smallholders to access credit beyond the traditional sources of financing. These new schemes offer more flexible loan schemes that are closer to the smallholders' requirements. At the same time, while the new models do not necessarily require the smallholders to provide collateral, smallholders still have to be assessed for creditworthiness. In this case, the service providers move further by assessing the borrower's capacity to repay the loan, as well as helping them to adapt to what the service providers require in order to start the financing agreement.

The models have not been able to deal with the maturity gap and production and price risks. Smallholders cultivating food crops have to wait for at least 3 months before harvest, and those cultivating estate and tree crops may wait years for the first harvest. Smallholders also face production and price risks, which will affect their ability to repay the loan. One way to cope with the challenge is to establish a contract between the smallholders and the buyers (as off-takers) that specifies the quantity and the prices, and agree on sharing the risks.

The off-takers may lower their risk if they place the initial agreement under their corporate social responsibility program rather than placing it under their operational expenses. Government could play a role by looking into establishing crop insurance. The Ministry of Agriculture has developed insurance for rice and cattle, and provided premium subsidies to attract participants (Kementerian Pertanian 2017, Kementerian Pertanian 2017). The ministry and its insurance company partner have been disseminating information and educating smallholders on an insurance scheme that covers losses due to natural disasters and (in the case of cattle) due to theft. With the crop-based insurance program, it may take a while to cover key crops.

Finally, financing schemes should encourage smallholders to adopt better social, environmental and governance measures. The issue is more relevant to crops that involve potential environmental risks with the land preparation process, more use of chemical fertilizers and pesticides, and the cultivation of crops that involve social issues. The role of certification is to deal with these issues. However, smallholders are either not included in the certification because they are explicitly exempted, or because the voluntary nature of the certification does not punish those who choose not to have their practices certified. Again, this requires a convergence between certification bodies addressing smallholders' requirements and smallholders improving their practices.

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