# Strategies for Facilitating Structural Transformation of Smallholder Farms in Indonesia

Tahlim Sudaryanto

Senior Agricultural Economist, Indonesian Center for Agriculture Socio Economic and Policy Studies, Ministry of Agriculture, email:tahlim@indo.net.id

## INTRODUCTION

Similar to many other emerging economies, Indonesian agriculture is characterized by a dualistic nature, in which large numbers of smallholder farms accounting for large proportions of total production coexist with a small number of modern large- scale farms. According to OECD (2015), dualism does not itself signal a problem that would potentially benefit from policy intervention. The problem is rather the existence of a large number of people that depend on farming for a living but whose farms do not generate a minimally acceptable level of income.

The nature of dualism varies accross sub-sectors and commodities. For instance, in the case of food crops almost entirely the whole sub-sector is operated by smallholder farms. However, the share of smallholder in area planted to oil palm and tea, ranges from 40-45%. For cocoa and rubber the share is much higher at 80-90% (Fuglie, 2010). Whether smallhoder farm will continue to exist at certain proportion or will evolve overtime is both a conceptual and empirical question.

Even though the proportion varies accross countries, smallholder farms will persist toward a foreseeable future (OECD, 2015). From a development perspective, the smallholder farms should be promoted to transform themselves toward a viable market oriented and commercial farms. This strategy is considered as one option to narrow income gap between smallholder and large farms, and between agriculture and non-agriculture.

The purpose of this brief is to analyze the structure, characteristics, and strategy in transforming smallholder farms in Indonesia.

### Trends of farm size and smallholder farms

Global evidece indicates that farm size is declining over time, and as a consequence, the number and proportion of smallholder farms is increasing. FAO (2005) reported that despite its variation across countries, farm size has been declining globally, from a median of slightly under 11 hectares in 1950, to slightly over 5 hectares in 2000. Higher-income countries have tended to have farm size increases, while lower-income countries show declines. The FAO data show that farm sizes are declining in Africa and Asia, increasing in Europe, Argentina and Uruguay, the USA, Canada, Australia and New Zealand. In Asia, farm

sizes have declined from 2.5 hectares in 1950 to about one hectare more recently; meanwhile European farm sizes grew from 10 to 15 hectares. Average farm size in India declined from 1.6 hectares in 1990 to 1.4 hectares in 1995.

As a consequence of declining farm size, the number of smallholder farms is increasing, particularly in developing countries. Only in developed countries the number of smallholder farms has been increasing. Approximately 80% of the farms in the world are smalholder operating less than 2 hectares. Percentage of smallholder farms in Sub-Saharan Africa (SSA) ranges from 70-85%, but varies across countries. Another figure from India indicates that percentage of smallholder farms increased from 61.7% in 1960/61 to 80.6% in 2002/2003.

Unofficial definition of smallhoder farms In Indonesia uses 0.5 hectares as a threshold (Sudaryanto *et al.,* 2009). This definition generally refers to food crop farms. For horticulture and estate crops farms, the definition exactly follow the international standard, use less than 2 hectares as a threshold. Furthermore, the Law No.19/2013 on farmers' protection and empowerment, focuses the policy mandated by the Law on farmers operating land of less than 2 hectares for food crops and small enterprises for farmers engaging in horticulture and livestock.

According to the Agriculture Census 2013 (CBS, 2014), there are 26.1 million (72.1%) family farms in Indonesia. In addition, there are 4.2 million units (11.6%) corporate farms, and 5.9 million units (16.3%) other type of farms, such as cooperative, religious groups, etc. Out of 26.1 million family farms, there are 25.8 million landholders, with average size of 0.80 hectares, and 14.2 million (55.2%) are smallholder farms *(petani gurem)* with land holding of less than 0.5 hectare. However, if we use international definition, 85.3% of the farms in Indonesia are smallholders, very close to global estimate of 80%.

The trend of smallholder farms as appeared in Agriculture Census of 1993-2003 is similar to the global trend. The number and percentage of smallholder farms during this period increased from 9.6 million (45.3%) to 14.1 million (56.4%). However, the average farm size during that period is exactly constant at 0.79 ha (Sudaryanto, *et al*., 2009).

Smallholder farms are not homogenous. Hazel and Rahman (2014), differentiate smallholder farms into three categories as follows: (a) *Commercial smallholder farmers* who are already succesfully linked to value chains, or who could link if given a little help; (b) *Smallholder farmers in transition* who have or will soon have favorable off-farm opportunities and would be better if they were either exit farming completely or obtain most of their income from off-farm sources; (c) *Subsistence-oriented smallholder farmers* are magnified for a variety of reasons that are hard to change, such as ethnic discrimination, affiction with HIV/AIDS, or being located in remote areas with limited agricultural potential.

**Strategies to facilitate transformation of smallholder farms**

As Fan *et al*. (2015) pointed out, different types of smallholder farmer requires different development paths, based on the corresponding development constraints. For

smallholder farmers facing soft constraints, there are opportunities to either move up to commercially viable agriculture or move out to the non-farm sectors. However, if the smallholder farmers experience hard constraints, then it would be better-off for them to move out of agriculture and seek employment in the non-farm sectors.

The Indonesian government has identified some major barriers faced by smallholders to access market and develop. These are: a) poor infrastructure that limits the connection with traders and processors; b) low capacity to access information and to bargain with traders; c) weak farmer organizations; d) traditional or obsolete technology use; and e) limited working capital to finance necessary inputs. Although efforts have been made to address these barriers, they are still far from being resolved.

Agricultural policies in Indonesia can be seen as part of bigger strategies such as the Food Security (Food Law of 2012), Poverty Alleviation Strategy, Master Plan on Acceleration of the Indonesian Economy and the Rural Community Empowerment Initiative. These strategies try to improve living conditions of the people in both rural and urban areas. In a very broad way, programmes to address constraints faced by smallholders are: fertilizer subsidies; investments in agricultural infrastructure, particularly irrigation; the provision of various credit programmes with subsidized interest rate; advice and market information provided through extension services; the development of partnership between farmers and traders/processors and the creation of farmer organizations; and technology development and dissemination.

The government of Indonesia has the priority to allocate an important proportion of the programmes to smallholders. However, it is difficult to measure what share of these programmes is provided to small-scale agriculture. Furthermore, to what extent the policy reaches smallholders is still a subject of empirical question. There is no mechanism to validate that this is actually the case. Large farmers also enjoy the benefit of the programmes and sometimes are the main beneficiaries. For instance, fertilizer subsidies dominate budgetary support. These payments are channelled through fertilizer companies and have been found to be costly and the extent to which benefits accrue to farmers has been questioned. Furthermore, constraints that prevent smallholders to access market and improve productivity continue to exist.

## Conclusion

Similar to that of global trends, average farm size in Indonesia is still declining, and as a consequence, the number and percentage of smallholder farms is increasing. In other words, smallholder farms will still characterize Indonesian agriculture toward a foreseeable future. Therefore, agricultural development strategy should be prioritized to promote transformation of smallholder farms into a commercial and market-oriented farms.

Some policies currently implemented by Indonesian government are basically not targeted specific to smallholder farms. In some cases, large farmers enjoy larger benefit of those policies. In order to achieve more effective and larger impacts, future development policies should address specific needs of smallholder farms.

**References**


Central Bureau of Statistic (CBS). 2014. " "*Sensus Pertanian 2013: Angka Tetap* (Agriculture Census 2013: Final Estimate)"CBS, www.bps.go.id, Jakarta.

Fan, S., J.Brzeska,T.Olofinbiyi. 2015. "The Business Imperative: Helping Small Family Farmers to Move up or Move Out". Food Policy Resport 2014-2015. International Food Policy Research Insitute (IFPRI), Washington, D.C., USA.

FAO. 2005. "2000 World Census of Agriculture: Analysis and International Comparison of Results 1996-2005", Rome.

Fuglie, K.O. 2010. "Indonesia: From Food Security to Market-Led Agricultural Growth", in Alston, J., B.A. Babcock and G. Pardey (eds.), *The Shifting Patterns of Agricultural Production and Productivity Worldwide*, Midwest Agribusiness Trade Research and Information Center, Iowa State University, Ames, Iowa.

Hazell, P., A.Rahman (eds). 2014. "New Direction for Smallholder Agriculture". International Fund for Agricultural Development (IFAD) and Oxford University Press, Oxford, United Kingdom.

OECD. 2015. "Strategies for Addressing Agricultural Dualism and Facilitating Structural Transformation". TAD/CA/APM?WP(2014)30/REV1. Trade and Agriculture Directorate, Committee for Agriculture, Paris, France.

Sudaryanto, T., S.H.Susilowati, Sumaryanto. 2009. "Increasing Number of Small Farms in Indonesia: Causes and Consequencies", European Association of Agricultural Economist, 111th Seminar, June 26-27 2009, Canterbury, UK.



Date submitted: Dec. 10, 2015
Reviewed, edited and uploaded: Dec. 11, 2015