The benefits of an agrarian reform model in Indonesia

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Abstract. Almost Indonesian farmers are small scale farming that its number is continuously increasing. Because of land hunger, some farmers cultivate vacant lands illegally, such as unproductive lands of plantation estates and forest lands. For solving the illegal occupation, the government has applied agrarian reforms consisting of land redistribution and empowering farmer scheme. Study areas consist of 9 selected pilot project locations applied in Java and Sumatra islands. The data of location distributions, area sizes, land backgrounds, asset reforms, and access reforms were compiled and analyzed descriptively. Locations 1 to 7 in Java Island consist of agricultural lands, except location 7 was housing. These land objects were under conflict between occupants and land owners. Location 8 and 9 were in Lampung Province, the case of local farmers’ utilized unproductive state lands. Due to helping poor people, this agrarian model answers the debate between access to land and access to income. Both sides must be combined in scheme of asset reform and access reform. Secondly, agrarian reform solves land conflicts particularly land occupation and increases welfare of landless people. Finally, agrarian reform will be successful if it’s supported with for poor political atmosphere.

Keyword: landless farmers, land conflict, asset reform, access reform, political atmosphere

1. Introduction
Agrarian reform is a program conducted by the government to restructure ownerships, tenures, and uses of agrarian resources, especially lands. The first purpose of agrarian reform is similar to land reform that is distributing land tenure in social – politically fair. This purpose is in line with the government policy to decrease unbalanced land tenures. In 2014, gini ratio of land tenure at national level was 0.71. It’s mean that unbalanced land tenure was worse than income distribution (gini ratio = 0.42). Land redistribution which is finalized with land administration gives the certainty of land ownership. The scope of agrarian reform is wider than land reform. Agrarian reform not only distribute land to concern fairly land ownership but also optimize land uses to improve people income [1]. Fairly land ownership reduces land conflict. It’s hoped that non conflict land and certainty of ownership increase land productivity.

Almost Indonesian farmers are small scale farming and peasants because the average of land tenure by farmer households is very low. The population growths have reduced the average of land tenures and increased the number of very small scale farmers (who cultivate less than 0.5 hectare for one household). Census data of agriculture carried every ten years by the Central Bureau of Statistics (BPS) of Indonesia shows this trend as described at table below.
Table 1. The Numbers of Small Farmer Households and The Averages of Land Tenure in Indonesia (1983, 1993, 2003, and 2013).

| Years | 1983 | 1993 | 2003 | 2013 |
|-------|------|------|------|------|
| The average of land tenure per farmer household at National level (hectare) | 0.98 | 0.83 | 0.79 | 0.96 |
| Number of Small Farmer Households (< 0.5 hectare land) | 6.4 millions | 10.9 millions | 13.7 millions | 14.25 millions |

Sources: [5]

Especially in Java Island, the average of land tenure of the farmers is only less than 0.35 hectare. It is because Java Island is the most populated island in the country and the conversion use of agricultural land is still high [2]. Ideally, the farmers will be prosperous if its land tenure is 2 hectares or more per household. Very small land tenure causes the farming system is not economically efficient and thus is not prospective.

Because of land hunger, some peasants cultivate vacant lands temporary, such as parcels proposed for housing owned by real estates at suburban areas. This situation don’t result serious problems because the farmers use land if the owner gives permission for utilizing land in temporary time before the owner develop the land. The problem occurs if the farmers cultivate vacant land illegally that persisted for a long time. This situation occurs at abandoned lands owned by unproductive plantation estates in many regions. This situation results land conflicts and also the cultivation of lands are not optimal. The more serious illegal cultivations also occur at marginal lands and state forest lands which not only causing land use conflicts but also having impacts on environmental sustainability. If the illegal cultivations are not stopped immediately, the problems become more complicated, including economical, legal, and political issues.

On the other hand, the farmers will be constantly poor if they have limited lands. One of the key to help farmers is improving their access to lands because land is a major production factor in agricultural sector. Hopefully, increasing agricultural land tenure for farmers supports rural poverty eradication. For increasing the land ownerships, they need intervention from outside famers, that is the government. In Indonesia, there are some ways to make landless farmers have lands;

- Transmigration projects; the governmental body develops state lands preparing for trans-migrants. The state lands used are mostly convertible forest lands (not permanent forests and conservation forests) in the outer islands of Java such as Sumatra, Kalimantan, Sulawesi, and Papua. The trans-migrants are the landless farmers carried from densely populated islands like Java and Bali islands. They are moved by the government to the new transmigration areas. In the new areas, they receive house and agricultural lands around 2 hectares per household for growing staple food. This project is similar to the settlements of Felda in Malaysia in the past, but here for growing cash crops.

- Nucleus Estate and Smallholders (NES) projects; the public sector estate companies as the nuclei establish new estates on unused state lands, especially secondary forest or bush lands. The nucleus estates clear land, build infrastructure and housing for new settlers, provide employment, establish and maintain the tree crops to maturity, and manage and provide technical and financial services for the development of associated smallholders. The participants are landless and near-landless households coming from densely populated islands and local people. The aim of the projects is to raise the poor farmer’s incomes while increasing export commodities from tree crops.

- Agrarian Reforms; there are several models of agrarian reforms around the world, one of the models is land redistribution. According to the Government Regulation number 224 Year 1961 about Implementation of Land Redistribution and Its Compensation, land redistribution in Indonesia consists of 4 models relating to the objects of redistributed lands. These are absentee agricultural lands, excess lands from maximum ownership limit, ex-special territorial lands, and
lands that taken charge by the government. Absentee land is the land which the owner lives outside the sub district where land is located. The last one includes abandoned private, estate, or state lands that can be determined as the objects of land redistribution. Now, only this last one model remains exist, that is the redistribution of abandoned private, estate, or state lands. The other 3 models didn’t exist because no land object anymore or the object is very difficult to be identified.

Recently, transmigration projects and NES projects were not priority because of limited state land objects. This paper focuses on how has the last model of land redistribution been improved and what benefits for the people who received the lands.

2. Methodology
The scope of the discussion is an improved model of agrarian reform that the pilot projects have been conducted in several regions in Java Island and Sumatra Island in several past years. By using the available data from the institution that conducted the pilot projects and other data resources, the implementation and result of the pilot project are identified and analyzed descriptively. After identifying the results of pilot project implementation, we can describe what is the specific characteristic of the improved agrarian reform model and what advantages and disadvantages of the model comparing with the standard model. Then, we can recommend the efforts to implement the model more effective.

3. Results
One of the standard models of agrarian reform is simple land redistribution or land reform. Land object is divided to many parcels and given to landless farmers. Land reform has been conducted during 1960’s until 1990’s. In the early period, the objects of redistributed lands mostly were the absentee agricultural lands and excess lands from maximum ownership limit. However, because of political change during new era administrations since 1970s, the land objects changed to abandoned state lands. Since 2000’s, land reform policy accommodated political situation of the reformation era. Landless farmers pushed the government to obtain lands not only abandoned state lands but also from less productive lands owned by plantation estates. This situation became the implementing background of boarding land reform into agrarian reform until recent years. According to Decree of The People’s Consultative Assembly number IX year 2001, agrarian reform is also called agrarian renewal.

The process of agrarian reform that we discuss consists of asset reform and access reform. Asset reform means giving parcels of state lands to landless farmers or legalizing the right of abandoned lands which have been occupied by farmers for long time. The process of legalizing land rights in this model is accompanied with empowering the farmers. The instruments of empowering farmers include skill training, infrastructure development (rural roads, irrigation, electricity, etc.), soft loans, etc. These instruments help famers to access the economic (market) system in order to utilize their lands more productive. This process is called access reform. Many experts say that the model of agrarian reform consisting of asset reform and access is also called land reform plus [3]. The several pilot projects have been conducted in several regions in Java island and Sumatra island. The result of selected locations is showed in table 2.

| Location                          | Area (Ha) | Asset Reform               | Access Reform     | Background of Land Objects               |
|----------------------------------|-----------|----------------------------|-------------------|-----------------------------------------|
| 1. Ten villages at Jasinga Subdistrict, Bo | 1,168.00  | Giving land right for 3,450 farmer  | Implementation of access reform was limited. | There was conflict between plantation estate (PT. Jasinga P.E) and farmers, because farmers |
| WEST JAVA PROVINCE                | 2007      |                            |                   |                                         |

Table 2. Asset Reform and Access Reform In 9 Selected Locations of Agrarian Reforms
| Location                                                                 | Area (Ha) | Asset Reform                                                                 | Access Reform                                                                 | Background of Land Objects                                                                                             |
|-------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------|------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| 2. Caruy, Sidasari, Kutasari, and Mekarsari villages, Cipari Subdistrict, Cilacap Regency, CENTRAL JAVA PROVINCE | 284.12    | Giving land right for 5,141 farmer households, during 2010-2012               | Contribution from a cigarette industry (PT. Jarum) as its corporate social responsibility = 4,600 durians and longan plants. | There was conflict between plantation estate (PT. Rumpun) and farmers, because farmers occupied a part of plantation estate lands illegally during political instability in 1998. |
|                                                                         |           | Mean = 0.34 ha/farmer                                                        |                                                                              |                                                                                                                     |
|                                                                         |           | groups and couching them not to sell their lands but cultivate actively and giving fruit seedling. |                                                                              |                                                                                                                     |
|                                                                         |           |                                                                              |                                                                              |                                                                                                                     |
| 3. Sumogawe village, Getasan Subdistrict, Semarang Regency, CENTRAL JAVA PROVINCE | 70.00     | Giving land right for 1,106 farmer households in 2011                          | Contribution of local government;                                           | There was conflict between state plantation estate (PTPN IX) and farmers, because farmers occupied a part of plantation estate lands illegally during political instability in 1998. |
|                                                                         |           | Mean = 0.06 ha/farmer                                                        | • Agricultural extension and skill training                                  |                                                                                                                     |
|                                                                         |           |                                                                              | • Upgraded local roads                                                      |                                                                                                                     |
|                                                                         |           |                                                                              | Soft loan from public bank (BRI) and local bank                             |                                                                                                                     |
|                                                                         |           |                                                                              | A medical herbal industry (PT. Sido Muncul) supported the marketing of medicine herbs planted by 458 farmer households |                                                                                                                     |
|                                                                         |           |                                                                              | Four milk industries (PT. Sari Husada, PT. Indolakto, PT. Cimory, and PT. Cipta Nasional) supported the marketing to 648 farmer households who have feedlotter of cows and |                                                                                                                     |
|                                                                         |           |                                                                              |                                                                              |                                                                                                                     |
| Location | Area (Ha) | Asset Reform | Access Reform | Background of Land Objects |
|----------|-----------|--------------|---------------|---------------------------|
| 4. Trisobo village, Boja Subdistrict, Kendal Regency, CENTRAL JAVA | 11.50 | Giving land right for 560 farmer households in 2011 Mean = 0.02 ha/farmer | Central Java Provincial Office of National Land Agency coordinating with local government;  • Supported farmers to establish farmer’s groups (2012)  • Skill training of cassava cultivation, cassava processing, and fresh water fishery. | Local people pressured the government and the plantation estate (PT. Karya Deka Alam Lestari) to distribute a part of plantation lands |
| 5. Babadan, Sugihwaras and Sempu villages, Ngancar Subdistrict, Kediri Regency, EAST JAVA PROVINCE | 217.39 | Giving land right of 1,688 parcels for 1,584 farmers in 2009 Mean = 0.13 ha/farmer | 2 NGOs (JogloTani from Yogyakarta and KPN Kediri);  • Established farmer’s groups (2009)  • Carried out skill training in making organic fertilizer and pine apple farming | There was conflict between plantation estate (PT. Sumbersari Petung) and farmers, because farmers occupied a part of plantation estate lands illegally during political instability in 1998. |

- **dairy cows**.
| Location | Area (Ha) | Asset Reform | Access Reform | Background of Land Objects |
|----------|-----------|--------------|---------------|---------------------------|
| 6. Nine villages, five Subdistricts, Blitar Regency, EAST JAVA PROVINCE | 1,919.40 | Giving land right for 7,261 farmer households in 2007 Mean = 0.26 ha/farmer | Contribution of local government;  
- Established farmer’s groups  
- Animal husbandry extension and fedlotter skill training  
- Upgraded local roads  
- Soft loan from local bank (Bank Jatim) | The land objects were land reform objects in 1960s which postponed because of political change from old era order to new era order in 1967. |
| 7. Kragilan, Kelurahan Kadipto Surakarta City, CENTRAL JAVA PROVINCE | 0.23 | Selling land in lower price. Giving land right for 54 occupants in 2008 (50 m²/ household) | Contribution of local government (City of Surakarta);  
- Implemented land consolidation for settlement,  
- Soft loan from a local bank to occupants for buying lands  
- Developed neighborhood roads and housing improvement  
- Supplied clean water  
- Carried out skill training of home industry  
- Established community groups and cooperative enterprise | There was a conflict between squatters and 16 owners of lands since 1997. This abandoned private lands in suburban area had been occupied by squatters for settlement. |
| 8. Sidorejo & Sidodadi villages, Bangunrejo Subdistrict, Central Lampung Regency, LAMPUNG PROVINCE | 1,524.23 | Giving land right for 2,258 farmer households in 2007 Mean = 0.67 ha/farmer | Developing community organization by establishing farmer’s groups  
Counseling of cacao cultivation and marketing by University of Lampung.  
Counseling of peanut cultivation and marketing by the Research Bureau Of Agricultural Technology and by a peanut | Unproductive state lands in form of bushes, shrubs or secondary forests have been cleared and cultivated by landless farmers |
| Location | Area (Ha) | Asset Reform | Access Reform | Background of Land Objects |
|----------|----------|--------------|---------------|---------------------------|
|          |          |              | processing industry | Counseling of cacao replanting by state plantation estate (PTPN VII) |
|          |          |              |                | Cooperation between farmers and a private company (PT. Great Giant Livestock) in feedlot of cows. |
|          |          |              |                | Subsidized loan from BNI Syariah |
|          |          |              |                | Local road upgrading and underground water pumping by the local government. |
| 9. Pesawaran-indah and Watesway-ratai villages, Padang-cermin Subdistrict, Pesawaran Regency, LAMPUNG PROVINCE | 2,381.53 | Giving land right for 3,450 farmer households in 2007 Mean = 0.69 ha/farmer | Developing community organization by establishing farmer’s groups Counseling of cacao cultivation, cacao marketing, mushroom culture and fresh water fishery by University of Lampung. Counseling of cacao processing by The Research Bureau of Agricultural Technology Counseling of cacao replanting by the state plantation estate (PTPN VII) Local road upgrading by the local government. | Unproductive state lands in form of bushes, shrubs or secondary forests have been cleared and cultivated by landless farmers |

Locations 1 to 7 were selected pilot projects in Java island consisted of agricultural lands for locations 1 to 6 and suburban land for location 7. These pilot projects had land objects under conflict between occupants and land owners. Location 8 and 9 were pilot projects in Lampung Province (southern end of Sumatra island), a province that has been growing fast in economic development and population number during four decades. Contrast with in Java island, land objects in Sumatra island had not have a conflict but utilizing unproductive state lands. The average size of distributed land per farmer household varied among locations. The least is at location 7 in Surakarta city (50 m²/household) where the project was an urban settlement. The averages of agricultural land received per household in Java island were not so large, these were range from 0.02 ha to 0.34 ha. In Lampung Province (Sumatra island), the averages were larger than those of Java, these were 0.67 ha and 0.69 ha.
4. Discussion

4.1. Debate Between Access to Land and Access to Income

In empowering poorly landless people, there is a debate between giving them access to land or access to income. Giving access to land means that every landless household is given a parcel of land for economic activities. Land objects are agricultural lands for farmers or housing land for urban people. However, if they only have access to lands without other supports it’s not guarantee that they can solve their poverty problems. Most of the reason is that the sizes of land accepted were not large enough (less than 2 ha) to support their daily live. On the other side of debate, giving access to income means that poor people who work as farmers or non formal works are given opportunities to better income sources like industrial labors or service sectors. However, this policy is not guaranteed to be successful because their skills may not match with new job opportunities. Mostly poor people don’t have enough education and skill to convert their jobs and they will stay in vicious cycle of poverty. To cut the vicious cycle, poor people need intervention from outsiders. The agrarian model we discuss here may answer this debate.

The pilot projects resulted the averages of agricultural land received per household in Java island varied from 0.02 ha to 0.34 ha and in Lampung Province (Sumatra island) were 0.67 ha and 0.69 ha (table 2). These numbers are still far from an ideal number of 2 ha. Therefore, this asset reform would fail if it was not followed by the access reform. The access reform helped people to optimize the use of lands. It included setting up farmer groups, conducting skill trainings, giving seedlings, serving low rate debts, and helping product marketing. In conclusion, the agrarian model answered the debate by strengthening land ownership (asset reform) and empowering people to optimize their land uses (access reform).

4.2. Solving Land Conflicts

In densely populated regions where free state lands are very limited, many local landless farmers urge to cultivate abandoned lands illegally such as plantation lands in Java and forest state lands in Lampung. This phenomenon has been occurred many years ago. This illegally land occupation resulted conflict between land owners or land management and local people, mostly farmers. Solving this problem by the law was very difficult because of technical and economic-political reasons. The technical reason was the lands before occupied by farmers were less or unproductive because the owners (plantation firms) have not utilized the land well. Abandoned lands stimulate landless people to cultivate the lands with/without permission to the owners. Occupation would be successful if it’s not solved immediately or it’s supported by a political pressure. The economic political reason was those landless farmers were poor people but they had political power in their regions. Therefore, the government applied agrarian reform to legalize land occupations. This reform needs the political atmosphere which take a side for poor farmers, if not, it’s far from possible for landless farmers can get legal rights on disputed lands. In case of ex-plantation lands, agrarian reform gave impact in changing the structure of land tenure and land use from capitalist system to populist system. It’s changed from one ownership land for monoculture commodity to farmers’ ownerships for food crops and cash crops.

Data in table 2 above shows that agricultural land redistribution objects in Java Island (location 1 – 6) had conflict backgrounds between the plantation estates and landless farmers. Under technical and political considerations, asset reform and access reform have solved the problems. Government held the processes of negotiation between the disputed parties. Generally, the processes consumed many years because of complexity of the problems. Both sides believe to have rights to manage the disputed lands. For example, problem solving of location 5 (Kediri Regency, East Java) needed 8 years. Negotiation started at year 2000, but postponed in year 2004 because the plantation estate (PT. Sumbersari Petung) took the conflict to the court. Negotiation was reached in 2008 that the estate agreed to the government decision to released 217.39 ha of land for 1,584 farmers. Not only agricultural land occupations, but squatter in urban areas also has been solved by agrarian reform. A pilot project of squatting lands is location 7 (Surakarta City) in table 2. Location 7 shows that
the conflict background was occupation of abandoned private lands by landless people that persisted for a long time. Because the 16 land owners didn’t have control physically over their lands that have become a slum area, the Mayor City of Surakarta did negotiation between the owners and the squatters. The owners agreed to sell their lands bellow market price and the occupants paid the lands supported by local bank in low rate credit. The Mayor cooperated with National Land Agency conducted land consolidation in frame of agrarian reform.

4.3 Increasing Land Productivity and People Income
Theoretically, farmers who have own right of lands would cultivate their lands better than those of share croppers, illegal cultivators, or squatters. In these pilot projects, the process of asset reform included physical land distribution and legal land administration giving the certainty of land tenure. Asset reform was followed by access reform conducted by the government and private sectors. The process of access reform gave people empowerment in using their lands. The assistance of central, provincial, or local governments coached local people in establishing farmer groups (location 1, 6, 8, and 9), gave skill training (location 3, 4, and 7), upgraded infrastructure like local roads (location 3, 6, 7, and 8), provided irrigation water (location 2 and 8), and provided clean water (location 7). NGOs also helped people to make farmer groups (location 5). Private companies using their corporate social responsibility (CSR) funds gave skill training (location 3, 8, and 9) and seedling (location 2, 5, 8, and 9). A state university also gave counseling for farming cultivation and product marketing (location 8 and 9). Local banks serviced low rate loans (location 3, 4, 6, 7 and 8) with land certificates as the guarantees. Finally, several private companies bought the farming products in the framework of marketing support (location 3, 5, and 8).

The result of asset reform followed by access reform were improving land use, land productivity, and increasing social economic status of the people. For instance, farmers of location 5 (Kediri Regency, East Java) encouraged to change the crop from pineapple to nilam (Pogostemon cabin Benth) after they have got land ownerships. They changed a cash crop (pineapple) to an industrial crop (nilam) under counseling of ISWI (Indonesian Female Scholar Association). The result was increasing income from Rp.6 millions to Rp. 32 millions per hectare per year.

A probable negative result that threatened the benefits of agrarian reforms was if the participants sold the parcels of land. For example, the agrarian reform location 1 showed not so good result because several participants sold the parcels received. It’s because the participants were not actual farmers. The other cause was the effect of unfair and inaccurate distribution of lands that causing overlapping objects. The conflict among participants because of overlapping object was solved by one of the party sold the object to the other [4]. Another probable negative result was unsustainable adoption of skills by the communities after the project done. The good result of community development given by the government was not adopted long lasting. Like in location 7 (Surakarta City), the community groups have only worked cohesively during the project taken place but inactive after the project done. As the result, the settlement decreased physically and socially.

5. Conclusion
Except in Sumatera Island, land reform objects of the pilot projects had conflict backgrounds. For solving the conflicts, the pilot projects needed legal, political decision supports, and also needed a long time legal process. Although the distributed parcel sizes were too small to be ideal for production factor, the agrarian reform could increase social economic status of the receivers. The model of agrarian reform consisting of asset reform and access reform not only gave poor people access to land but also empowered them using their lands to increase incomes. However, these programs needed cooperation among government (particularly local government), local people, private sectors, and NGOs. Coaching of governments and other stakeholders should be continuous during and after several years the project done to convince that the project succeed long lastingly.
6. References

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