PEASANT EMPOWERMENT THROUGH SOCIAL CAPITAL REINFORCEMENT: ROAD TO SUSTAINABLE ORGANIC AGRICULTURE DEVELOPMENT (Case Study: Indonesian Peasant Union, Cibereum Situleutik Village, Dramaga Bogor, West Java Indonesia)

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Abstract

Indonesian rapid development in 1980’s has led to several significant changes for Indonesia. The development policy had emphasized economic growth, but the growth was uneven both in application and beneficiaries. Indonesian development has observed an average increase of 7% per year in economic growth (Ginandjar, 1996) and has brought Indonesia to a food self-sufficiency country. However, green revolution also brought negative impacts such as environmental degradation and dependency of the peasant on the government for further agricultural development. Green revolution technologies and techniques, including the use of synthetic chemical fertilisers and pesticides through time, have revealed their negative impacts. Indonesia is an agrarian country, with its people’s fate tied to the agriculture sector. Indonesia needs renewal to maintain and revitalize its agricultural system. One possible alternative is sustainable organic agriculture development. Indonesia has to work hard to achieve this considering the large number of powerless peasant still being viewed as a barrier in this case (Bali Pos, 2005). “Peasant empowerment” through social capital reinforcement (consisting of trust, networking, and norms) is seen as the best means to attain sustainable organic agriculture development that is integrated in the Indonesian Peasant Union as a platform to connect social networking among peasants in Indonesia, based on trust and family principal.

Keywords: green revolution, sustainable organic agriculture development, peasant empowerment, social capital, Indonesian Peasant Union.
**Introduction**

Indonesia is one of agrarian country which is shown by the 70% from 186 million hectares is used to agricultural sector. Besides land, marine has big potency for agriculture development. Agriculture is a sector that couldn’t be neglected because during the time, agriculture sector still become life support for almost Indonesian people. The number of Indonesian employment is 95.5 million people with its details 42.5% work in agricultural sector, 20.13% work in trade sector, 12.46% work in industrial sector and in service sector 11.90% (Indonesian Statistic Central Committee, 2007). From this data, it can be inferred that generally, Indonesian society is highly depended on agriculture as the main sector.

Regarding with the agriculture sector as a big potency of Indonesian country at the beginning in 1970’s in line with the Indonesian development policy which its aim to accelerate economic sector, Indonesian government had also implemented green revolution in order to support its rapid plan development. The aims of green revolution, is to grow the productivity of agricultural sector especially food agriculture by implementing the modern technology of agriculture. Green Revolution brought Indonesia into big changes, included farmer characteristics that moved from anti-technology to used-technology. According to Sutrisno (2002), generally Green Revolution program ran successfully. The real evidence shown by the increasing of food agricultural productivity sector and in 1984 Indonesia was considered as a food self sufficiency country. However, green revolution also brought negative impacts such as environmental degradation and dependency of the farmer on the government for further agricultural development. Green revolution technologies and techniques, including the use of synthetic chemical fertilisers and pesticides through time, have revealed their negative impacts. Hence, Indonesia as agrarian country, with its people's fate tied to the agriculture sector needs renewal to maintain and revitalize its agricultural system. Moreover, there are still many unprosperous peasants in Indonesia with narrow land ownership. One possible alternative is sustainable organic agriculture development. However, Indonesia has to work hard to achieve this considering due to the large number of powerless peasant still being viewed as a barrier in this case (Bali Pos, 2005).

Organic Agriculture is a system of ecological production management that support and enlarge the natural diversification, biological cycle, and biological soil activities (Organic Farming Research Foundation). Considering its positive impacts, Organic agriculture could be becoming one of the solutions to recover the affect of green revolution which cause environment degradation and claimed as unsustainable agriculture development. Organic agriculture in realization is not really easy as its simple concept because there are some barriers that must be faced by organic agriculture stakeholders such as the high price of organic product, lack of market, and powerless peasant to maintain this system. In order to realize organic sustainable development, there should be a special effort to empower peasant through social capital reinforcement (consisting of trust, networking, and norms) that will be expected to improve participation actively among peasants to goal sustainable organic agriculture development. One of peasant empowerment model which is evaluated successfully in enhancing peasant capability and influence them to leave modern agriculture system gradually based on family principal, has been done by Indonesian Peasant Union. Therefore, case study about it is being the main topic in this paper that will be discussed more.

**Problems Identification**

From the background explanation above, Indonesia as a developing country which has a big potency in agriculture sector, needs a renewal to revitalize its agricultural sector through social
capital reinforcement among peasants in view the large number of powerless peasants in Indonesia still being a main issue. Regarding with this background, there are several questions or problems in this paper which will be elaborated as follows: (1) how come organic agriculture system in Indonesia can revitalize and replace modern agriculture system that have ever practiced in green revolution era through peasant empowerment strategy; (2) How does capital social reinforcement among peasants based on family principal that done by Indonesian Peasant Union as a strategy in peasant empowerment model towards sustainable organic agriculture development.

Objectives
According to the problem identification, the objective of this paper could be mentioned below as follows: (1) to elaborate organic agriculture system in Indonesia through peasant empowerment as an alternative to goal sustainable agriculture development in Indonesia; (2) to analyze capital social reinforcement among peasants based on family principal that have been done by Indonesian Peasant Union as a strategy in peasant empowerment model towards sustainable organic agriculture development.

Materials & Methods

Green Revolution and Sustainable Organic Agriculture Development Concept
Historically, Green Revolution was introduced in 1968 by William Gaud, former of USAID director, donor institute owned by United State Government, it compares the massiveness changes on agriculture with the Red Revolution in Soviet and White Revolution in Iran, two big changes politically in those two countries. Gaud’s change is called as revolution and starting from Mexico by changing its agricultural system radically on 1945. One of the reasons is the inversely proportional of population growth and production capacity of wheat. Population grows during the time while wheat production was decreasing. Research, education extension, and infrastructure development were supported by Ford Foundation, Rockefeller Foundation, and some other big institutions. Facts said that Mexico which is initially imported wheat in 1943, in 1956 Mexico can fulfill its country needs, moreover Mexico can exported wheat to other country.

Those big changes are indicated that they’re successfully run the program, so Ford Foundation and Rockefeller Foundation bring the same technology to other countries which are focused on Paddy. One of them is International Rice Research Institute (IRRI) in Los Banos, Philippine with the new variety named International Rice, such as IR 64 and IR 36 which were spread widely into many countries, include Indonesia. The product reaches almost world’s population and change local paddy, include in Indonesia. IRRI that has 14 branch offices in 14 countries was starting to create a cooperation with Indonesia on 1972, through Balai Litbang Departemen Pertanian (Deptan).

Indonesia was starting to implement Green Revolution through Panca Usaha Pertanian (PUP) by founding some chemical fertilizer industry, agricultural tools production, and founding of pesticide industry. PUP that has mass demo activity was changing into Mass Tuition (Bimbingan Massal-BIMAS) in 1964 and it have been started since Government hold a Pilot Project on 100 hectares of land in Karawang a year before. BIMAS is considered not successfully run and finally government was trying to create a mutual assistance Bimas which are sponsored by two multinational companies, like Mitsubishi and CIBA. To ensure farmer receiving this program, government give credit supply to farmer. One of the example of credit that was given is Bimas Credit in 1981 by giving 250 kg of chemical fertilizer, 2 liters of
insecticide and cash money Rp.10,000.00 and 1.5 \% per month. This credit was done power coercively, and farmers have to face government military if they refuse it. Based on the history of green revolution, it can be defined generally that green revolution is a modern agriculture development policy to answer food requirement with improving food production by synthetic fertilizers and the other chemical elements.

World Board in March 2008 approved the definition of Organic Agriculture as a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved. Organic agriculture simply to be formulated as an organic system which emphasize on environment safety with decreasing use of chemical, enlarge local knowledge, and a system which combine several elements: ecology, economic, and social. In the other hand, sustainable development can be defined as consciously effort which is planned with combining environmental element including natural resources into development process for ensuring capability, prosperity, and high life quality of present generation and next generation (Sugandhy and Hakim, 2007). According to both definition above, sustainable organic agriculture means agricultural system which combine ecology, social, and economic elements into one integration and possible to be practiced by all peasants continuously as their local knowledge to answer food demand without using chemical.

**Social Capital Reinforcement as a part of empowerment**

Empowerment as a concept definitely talking about how does individual, group or community try to control their livelihood themselves and carry on to plan their future as well as they wish (Tonny, 2005). This principal address basically to encourage client for identifying and determining what should they do in terms of problem solution capability among them so that client would like to have awareness and full of authority to shape their future. Empowerment concept needs participation actively from the subject of development which refers to the client or community. Beside participation, empowerment also needs capital social reinforcement consisting of trust, norms, and network.

Trust, norms, and network are main concepts of social capital (Coleman, 1988, Fukuyama, 2001). Trust viewed as process to rely on something which has target definitely. Meanwhile, norm has a tight relation with trust and network so it couldn’t be separated each other. Norm appears from mutual beneficial exchange (Fukuyama in Robert Lawang, 2004). Character of norm is reciprocal and relate with many social interactions or values that has been agreed together and giving benefits for society each others. The last element in social capital is network which can be interpreted as a bound of knot between people connecting by social interaction. The social relation lead to expand network then and it is tied by trust which actually defends by norm. Having defined about social capital element, may it could be inferred that all three elements in social capital have tight relation and support each other then becoming one integration.
Logical Framework

Location and Time of Observation
The observation did in The Indonesian Peasant Union, Unit Bogor which located surrounding IPB campus, Cibereum Situleutik Village Bogor, West Java Indonesia on June until July. Indonesian Peasant Union was being a case study of this observation because it was near from
IPB campus and has empowerment model through social capital reinforcement among its peasants.

Strategy and Procedure
Strategy of this observation was qualitative approach with using case study. The kind of data are primary data which taken from informant through in-depth interview or observing research target directly and secondary data which taken from literature or files document relating topic. The procedure of collecting data had been done by combining in depth interview, analysis data based on literature or empiric reality found in Indonesian Peasant Union related with social capital reinforcement strategy as a part of empowerment model.

Results and Discussion

Organic Agriculture System and Peasant Empowerment in Indonesia.
Acknowledge the negative impact of green revolution, Indonesia has been doing renewal its agriculture into organic agriculture which revealed as more sustainable system. The total farmer and wide land of agriculture in Indonesia compare with the other country, can be seen below:

Table 1. Land Using percentage of Indonesian Organic Agriculture compared with the other country

<table>
<thead>
<tr>
<th>Country</th>
<th>Date</th>
<th>Organic Farms</th>
<th>% of all Farms</th>
<th>Organic Hectares</th>
<th>% of Agricultural Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Azerbaijan</td>
<td>2002</td>
<td>285</td>
<td>0.75</td>
<td>2,540</td>
<td>0.2</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>2002</td>
<td>100</td>
<td></td>
<td>177,700</td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>2001</td>
<td>2,910</td>
<td></td>
<td>901,296</td>
<td>0.06</td>
</tr>
<tr>
<td>India</td>
<td>2002</td>
<td>5,147</td>
<td></td>
<td>37,050</td>
<td>0.03</td>
</tr>
<tr>
<td>Indonesia</td>
<td>2001</td>
<td>45,000</td>
<td></td>
<td>40,000</td>
<td>0.09</td>
</tr>
<tr>
<td>Israel</td>
<td>2002</td>
<td>420</td>
<td></td>
<td>5,030</td>
<td>0.90</td>
</tr>
<tr>
<td>Japan</td>
<td>1999</td>
<td>+</td>
<td></td>
<td>5,083</td>
<td>0.09</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>2002</td>
<td>1</td>
<td></td>
<td>96,882</td>
<td></td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>1998</td>
<td>1,237</td>
<td></td>
<td>902</td>
<td>0.05</td>
</tr>
<tr>
<td>Laos</td>
<td>2001</td>
<td>150</td>
<td></td>
<td></td>
<td>0.01</td>
</tr>
<tr>
<td>Lebanon</td>
<td>2001</td>
<td>17</td>
<td>0.01</td>
<td>250</td>
<td>0.07</td>
</tr>
<tr>
<td>Malaysia</td>
<td>2002</td>
<td>26</td>
<td></td>
<td>45</td>
<td>0.001</td>
</tr>
<tr>
<td>Nepal</td>
<td>2001</td>
<td>405</td>
<td>0.06</td>
<td>2,009</td>
<td>0.06</td>
</tr>
<tr>
<td>Pakistan</td>
<td>2000</td>
<td>500</td>
<td></td>
<td>2,000</td>
<td>0.02</td>
</tr>
<tr>
<td>Philippines</td>
<td>2002</td>
<td>5,000</td>
<td></td>
<td>5,276</td>
<td>0.003</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>2001</td>
<td>3,301</td>
<td></td>
<td>15,215</td>
<td>0.65</td>
</tr>
<tr>
<td>Syria</td>
<td>2000</td>
<td>1</td>
<td></td>
<td>74</td>
<td>0.001</td>
</tr>
<tr>
<td>Thailand</td>
<td>2002</td>
<td>1,154</td>
<td>0.02</td>
<td>3,993</td>
<td>0.02</td>
</tr>
<tr>
<td>Ukraine</td>
<td>2002</td>
<td>69</td>
<td></td>
<td>239,942</td>
<td>0.58</td>
</tr>
<tr>
<td>Vietnam</td>
<td>2002</td>
<td>1,022</td>
<td></td>
<td>6,475</td>
<td>0.08</td>
</tr>
<tr>
<td>SUM</td>
<td></td>
<td>61,595</td>
<td>881,511</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
From the table above, it can be inferred that organic agriculture implementation in Indonesia still limit on the land accessibility of farmer. The comparison between land capacity and total farmer is unbalanced and it is indicated that organic agriculture system in Indonesia needs more improvement and expansion. The organic agriculture system in Indonesia, has not contributed in economic growth yet significantly because income per capita of Indonesian was still low based on Gross Domestic Product of Indonesia was above US$2000 or US$2181 in 2008, meanwhile Thailand, Brazil, and Mexico has pass the level of US$2000 in 1990. Poverness still become a big life phenomenon in almost Indonesian society especially in rural area with its almost society work in agricultural sector. In the last 10 years since economical crisis in 1998, the number of poor people still above 35 millions people or more than 15% or around one from six persons. Farmer that also become the biggest proportion of Indonesian Society were trapped into a big problem related to the main production factor in agricultural sector, low land ownership in the approximate number 0.25 hectares per family. Those conditions bring us for trying to realize that there were so many big challenges in the future. Indonesia running with passed away the time, still face many big challenge to realize sustainable organic development totally. These are the several problems that have been most barriers in organic agriculture implementation: the lack of organic fertilizer availability because organic farming needs more organic fertilizer to fulfill plant nutrition necessary in the soil compare with chemical fertilizer that can be absorb more effectively by plant. This reality make peasants specially poor peasants don’t able to cover fertilizer cost. The other problems related with organic agriculture are: the lack introduction of technology, the low of market accessibility, the high of organic agriculture standardization. Most of those things are difficult to reach or complete by Indonesian peasant in view that the limitation of powerful peasant and their low understanding about organic farming. Regarding this fact, Indonesian peasant needs to be empowered through peasant empowerment by social capital reinforcement consisting of trust, norms, and network based on family principal due to the low access of Indonesian peasant in agriculture capital or infrastructure. The kind of peasant empowerment strategy is viewed very important thing to support sustainable organic agriculture in the future and it has been adapting by Indonesian Peasant Union. Indonesian Peasant Union is one of organization firm which organize peasant to enhance organic agriculture independently.

Indonesian Peasant Union Profile
Indonesian Peasant Union is an Indonesian mass farmer organization. This organization consider as a place of peasant and labor struggle who are being progressively marginalized by development. Struggle focus is the renewal agrarian, farmer rights, food sovereignty, and opponent neo-liberalism. Inititally Indonesian Farmer Association named Federation of Indonesian Farmer Association. This organization was declared on 8th July 1998 in Kampung Dolok Maraja, Desa Lobu Ropa, Kecamatan Bandar Pulau, Kabupaten Asahan, North Sumatra by some of Indonesian farmer. During the era development, Challenge which were faced by farmer struggle organization become bigger. Neoliberal capitalist strength progressively stand aside community, so it causes awareness to reconsolidate farmer struggle. On those condition, it emerges desire to change the organization form and structure from federative to unity organization. The new one unit of this organization in Bogor, just declared officially in the early 2009 with its mandate to be platform for local peasant to do organic agriculture system together. All the problems that faced by peasant, will be solving based on family principal by peasant, and for peasant.

There are some divisions in Indonesian Peasant Union as follows: organization division; education, youth, art and culture division; cooperative division; communication division;
political, law, and security division; strategic of research; and female peasant division. Programs and Activities of Indonesian Peasant Union, mentioned below:

1. Doing various education form/forming of cadres for member.
2. Collecting, processing, and various information propagating, that useful for peasant and member.
3. Build the economic life of self-supporting member and sovereign principally with cooperation.
4. Doing cooperate and solidarity which is reinforce each other with peasant organization and other mass organization that has same view, principality, and target in national level and also international level.
5. Pushing and supporting the born of other mass organization which is in line with Indonesian Peasant Union.

Social Capital Reinforcement Concept by Indonesian Peasant Union to Support Empowerment Strategy Based on Family Principal

Sustainable organic agriculture is an important step to restructure agrarian and build social-economic agriculture which has synergism between production and distribution in renewal agrarian framework. The execute of sustainable agriculture is coming from family farming tradition that respect, guarantee, and protect the nature sustainable to realize back the agriculture culture as life. Because of that, Indonesian Peasent Union called it as “sustainable agriculture based on the family principal”, to make difference with other organic agriculture concept that direct to agribusiness. Sustainable agriculture is a backbone for realized the food sovereignty.

On sociology perspective, community is a local society that can be differentiated from larger society through its depth common interest (a community of interest) or higher interaction level (an attachment community) (Jim Ife, 2005). According to those definition of community, the member of Indonesian Peasant Union can be classified as a community because generally they have the common interest. They bring a big mission to realize food sovereignty in line with the reaching of prosperousness by creating a mutual and good relationship among members.

Social capital is considered as a mutual trust value among people in community towards their leader. This concept is defined as social institution that involves networks, norms, and social trust which support social collaboration for public interest. Social Capital comes from social network which is institutionalize and continously happened in the form of acknowledgement and reciprocal relationship that bring collective support for its society members, like neighbours, friendship, or family principal. In social capital which is built from trust, networking, and social norms each individu has duty and hope to do social thing, information potency. The peasant who have joined with Indonesian Peasant Union, have been gaining many benefits in their life including the increasing of income, capital support, and market access. Based on the data that have got from informant of peasant representative, peasants who have been the member of Indonesian Peasant Union, can be indicated that there are some basic changes in transforming of conventional agricultural system to be organic agricultural system as follows:

1. Capital Access Changes

   Capital access means the belonging of peasant access in land ownership, seeds, organic fertilizers as main factors in agriculture activities. Peasants who have already join in the Indonesian Peasant Union, have been supported by their community networking in this organization recently, so it can make them easier to start their agriculture activities in every plant season.
2. **Product changes**

   Product changes involved the improvement of product quantity and quality. After implying organic agriculture system in Indonesian Peasant Union, the product quantity rose 100% and the product become more qualified and healthier.

3. **Income Changes**

   Peasants get more income after they joined as Indonesian Peasant Union members. It is proved by the admission from peasant representatives mostly. Before they joined as Indonesian Peasant Union members, they just got income not more than six hundred thousands rupiahs per month. The monthly income, has increased approximately one million rupiahs in line with the increasing of organic agriculture production.

4. **Cooperative Establishment**

   Cooperative as social and economic institution based on family principal began to establish in Indonesian Peasant Union by peasant initiative. Through cooperative, organic agricultural system could be managed better than before and it will answer community interest.

   According to the theory of social capital from Fukuyama and Coleman, it can be analyzed the relationship between trust, norms, and network. Trust concept was shown by the high expression of believing each other among peasant, such as definitely job description of members during organic agriculture production until marketing processes especially in financial aspect (capital) or in managing cooperative. Concept of networking was implied by the reciprocal mutual relationship that create peasant networking especially in covering all the organic agricultural necessaries. For instance, needs and interests support among members through their networking. Regarding to all of organic agricultural activities, norms concept agreed as a social regulation that contribute to arrange all the roles of social interaction which is stated on the law institution of Indonesian Peasant Union.

**Conclusion**

The negative impacts of green revolution development policy in 1970’s led Indonesia begin to implement organic agricultural system as sustainable agricultural development which claimed as more environment friendly. There are several barriers in organic agriculture that faced by Indonesian peasant such as the lack of organic fertilizer, social capital, high of standardization, low market access, etc. Regarding with its barriers, Indonesia needs peasant empowerment model through social capital reinforcement consisting of trust, norms, and network. Social capital reinforcement as a part of peasant empowerment, has been done by Indonesian Peasant Union and there are many changes from its model implementation as follows: capital access change, product changes, income changes, and cooperative establishment as evidence of peasant active participation in managing organic agricultural process. Social capital shown by each activity which integrated and couldn’t be separated each other.

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