

Green Banking: How To Enhance Banking Policy On Sustainable Development, Renewable Energy and Biodiversity in Indonesia (Case Study in Food and Energy Security Loan Role Models)

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Abstract: *Presently, financial crisis, energy crisis, food crisis, poverty, and global warming are the most complicated issue on the global economy. Indonesia faced on problems and challenges that are not much different, namely the declining export value, food security or the rising imports of basic foodstuffs, energy security, and the impact of global warmings such as crops production, flood, healthcare, and biodiversity. This paper reveals bank's responsible for environmental damage in financing to their customers, whose have impacted on the environment. The data collected through, in-depth interviews and literature studies. The result of this research reveals that since the late 1970s, loans for food and agricultural intensification have been rolled out in Indonesia. It continues to adjust from year on year, it started from October 2007 was refined to Kredit Ketahanan Pangan dan Energi (KKP-E) (Food and Energy Security Loan). This is an effort to reach the necessity of main food in Indonesia, reduce the dependence of food imports and energy made from fossil fuels and develop other energy based biofuel source. The alternative energy here is based on cassava and sugar cane to become bioethanol. This fact that Indonesian banking has long contributed to a green economy as a new paradigm of sustainable development that balances people, profit, and a planet, which can be adopted by other developing countries, particularly agriculture-based.*

Keywords: *Green Banking, Food Security and Energy, Sustainable Development*

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INTRODUCTION

The financial crisis, energy crisis, food crisis, poverty, and global warming have become the major issue in today's global economy. Even nationally Indonesia is also faced with the same problem and challenge of decreasing the export value, food security or imports of basic foodstuffs, energy security (net imported oil, oil and electricity subsidize, fossil fuel domination and the impact of global warmings such as crops production, Flood, healthcare and biodiversity).

Sustainable development arises from the concern of the world community on economic growth through industrialization that has direct and indirect impacts on environmental damage, especially pollution impact. A research conducted by Hayward (2013) shows that out of 1000 CEO's studied across the world, 67% believe that the global economy is not going on the right path to meet the global sustainability challenges. The word sustainability came from the Latin, namely *sustinere* which means last long. This term then spawned the concept of sustainable development without sacrifice the sustainability of nature as a living habitat (Prakarsa, 2014). Not only the government and businessmen are responsible for it but also all the stakeholders involved in development, one of them is banking. Banking has provided support and contributed to the Indonesian economic development. Simultaneously, economic and banking activity support each other to grow. Controlling and evaluating are indispensable in economic activity to avoid emerge social and environmental issues. Even if banking operation isn't direct involving in the use of energy, water and natural resources, like other sectors, such as mining, property and manufacturing industries. Nevertheless, the banking sector is also responsible for the rise environmental degradation problem, because the banking provide financing their customer has activity which has impact on the environment.

Currently, people and business firms are becoming more aware and responsible for the role of the environment in life sustainable. Previously, banks felt they did not have any responsibility for the environment, just to provide financing to the industry. However, nowadays the bank operation must play a role in environmental damage refinement. It started with a loan propose of its customer. Subsequent, the bank analyzing and verify the negative impact of their business activity on the environment. The bank decisions as authority depend on the impact of business activities which financed by the bank to the environment (Jeucken, 2004). The government of Indonesia provides to support by issuing Presidential Regulation No. 36 the Year 2010 on the Negative list of business in various sectors as an early warning sign will not be able to get a loan. This regulation is followed by the determination of a negative list in each banking institution.

Furthermore, in an effort to prevent early risks of environmental damage, Some state-owned banks in Indonesia provide products that have a major impact on the conservation of biodiversity. They cooperate with the relevant ministries, the finance ministry, the ministry of agriculture and the ministry of fisheries and marine, proposed "food and energy security loan" or known as KKP-E (*Kredit Ketahanan Pangan dan Energi*).

The collaboration Banking and the Indonesian government aimed to magnify agricultural production and achieve self-sufficiency in food. It has been done since the last quarter 1970's and has continued to develop and adjustment until 2007 to become KKP-E (*Kredit Ketahanan Pangan dan Energi*).

LITERATURE REVIEW

Environmental Related Laws and Regulations

In the international world, environmental issues are gaining great attention, even the United Nations has created an environmentally independent body called UNEP (United Nation on Environment Program). The environment and ecosystems damage in Indonesia due to the lack of understanding of society, businessmen and policy makers on the definition of the environment. According to Act No. 32 Year 2009 article 1 concern the protection and management of the environment, the definition of the environment is the unity of space with all things, power, circumstances, and living things, including human beings and their behavior, affecting nature itself, the survival of life, and Human welfare and other living beings.

Actually Indonesia has interconnected regulations in the fields of environment, natural resources, and spatial planning.

Table 1. Environment Regulation in Indonesia

No	Regulation	Contents of The Law
1	ACT No 5 Year 1960	Basic Regulation of Agrarian Principles
2	ACT No 1 Year 1973	Shelf Continental Indonesia
3	ACT No 5 Year 1983	Exclusive Economic Zone of Indonesia
4	ACT No 5 Year 1984	Industry
5	ACT No 17 Year 1985	Ratification of the United Nations Convention on the Law of the Sea
6	ACT No 5 Year 1990	Conservation of Biological Natural Resources and its Ecosystem
7	ACT No 16 Year 1992	Animal Quarantine, Fish and Growing Plants
8	ACT No 5 Year 1994	Endorsement of the Convention on Biological Diversity
9	ACT No 23 Year 1997	Environmental Management (Changed by Law No. 32 Year 2009)
10	ACT No 41 Year 1999	Forestry
11	ACT No 22 Year 2001	Oil and gas
12	ACT No 7 Year 2004	Water Resources (all articles canceled by the Constitutional Court in February 2015)
13	ACT No 31 Year 2004	Fishery
14	ACT No 26 Year 2007	Spatial planning
15	ACT No 27 Year 2007	Management of Coastal Areas and Small Island Island
16	ACT No 17 Year 2008	Cruise
17	ACT No 18 Year 2008	Waste management
18	ACT No 4 Year 2009	Mineral and Coal Mining
19	ACT No 10 Year 2009	Tourism

20	ACT No 18 Year 2009	Animal Husbandry and Animal Health
21	ACT No 32 Year 2009	Protection and management of the environment
22	ACT No 30 Year 2009	Electricity
23	ACT No 41 Year 2009	Sustainable Land Farming Protection
24	ACT No 45 Year 2009	Amendment to Act No 31 Year 2004 on Fisheries

Source: Various Source

RESEARCH METHOD

Mostly, this study sources from literature data which has been collected through research journals, magazines, and reports including annual bank reports and other relative information published by banks and other internet sites. The primary data collected through the state-owned bank branch managers, officers of the Department of Agriculture, the Livestock Service Office, and the Department Fisheries and Marine which active involvement in the distribution of KKP-E (Kredit Ketahanan Pangan dan Energi).

RESULT AND DISCUSSION

Green Banking and Sustainability Development

Along with the raise of world's attention to environmental issues, banks are required to transform their behavior and activities. Basically the green economy concept encourage every economic activity to minimize its impact on the environment, is also adopted by the bank in the world. One of them through the concept of "Green Banking". Green Banking is a banking effort to prioritize sustainability in lending or operational activities. Saho and Nayak (2008) in his study explained "Green Banking", an effort by the banks to make the industries grow green and in the process of restoring the natural environment. This concept of "Green Banking" will be mutually beneficial to the banks, industries and the economy. They found there has not been much initiative in this regard by the banks and other financial institutions in India though they play an active role on it. None of them are signatory to the UNEP Financial Initiative statement of Sustainable Development. The UNEP-FI Statement of Sustainable Development was set in 2007, whereas a few years before, the study by Hart & Ahuja (1996) showed a positive correlation between environmental performance and financial performance. Initially, the banks should analysis of the social and environmental performance as well not their financial performance only. Green Banking is not only a CSR activity of an organization, but also it is about making the society ecology without any considerable damage. According to Neetu Sharma's research (2014), they can see that green initiatives like communication through press. Bank environmental policy, concession on energy savings, solar ATMs, green Cds are not as familiar in Green initiatives by the banks as per the respondents. Green banking is still a major issue and can take an important for development of India. As bank and financial institution of India has started taking initiative but not at high level.

Based on the fact that the lack initiatives of green banking implementation in India, Ritu (2014) recommends the Government and Reserve Bank of India (RBI) from their research to be more effective in adopting green banking concept by: (1) Communicate through press; (2) Construct websites and spread the news; (3) Impart

education through e-learning programmers; (4) Making green banking as part of annual environmental reports; (6) Training and development of relevant skills among bank employees; (7) Banks may formulate innovative financial solutions to incorporate environmental perspective; (8) Banks can introduce green funds for those wishing to invest in environment friendly projects. Jha and Bhome (2013) in their empirical study of the steps of banks to going to green, their research results provide recommendations: (1) For implementing eco friendly business practices, banks should adopt environmental standards of lending, which results in improving the asset quality of banks; (2) The rate of interest on loans given for green projects should comparatively less than the normal rate of interest; (3) Companies can increase their profitability by reducing or recycling of waste generated and also by adopting sustainable measures to go green.

On the other research, Biswas (2011) suggested some strategies for the adoption of environmental management in the banking sector : (1) Banks should do Environmental Impact Assessment (EIA) in which they design the environmental system to evaluate the risk involved before investing in different projects; (2) They should adopt the Annual Reporting System (ARS) in which they prepare an annual report on environmental risk guidelines for every project they invest or finance; (3) They should adopt environmentally sustainable technologies which minimizes risk, saves cost and enhance the bank's reputation; (4) Banks should begin implementing procedures like assessment of environmental risk, environmental audit management and assessment of loan follow up and credit requirement before investing in different projects.

The various explanations above clear up that the Green Banking Sustainable banking in briefly (Panjaitan, 2015) is a financial institution that gives priority to sustainability in its business practices. Understanding green banking base on four elements of life, namely nature, well being, economy and society. A green bank will integrate the four elements into a business principle that cares about the ecosystem and the quality of human life. Finally what comes up is the output of the company's operational cost efficiency, competitive advantage, corporate identity, and great brand image and balanced business achievement.

The history of implemented sustainability in Indonesia, started first implicitly when Bank of Indonesia regulated the aspect of environmental sustainability through Bank of Indonesia Regulation (PBI) No 7/2 / PBI / 2005. It regulates proportionally the environmental aspect especially article 11 paragraph 1 regarding the assessment of the components with a point "e" which reads "Efforts made by the debtor in order to maintain the environment. Prior to the establishment of Indonesia Financial Service Authority (OJK), Bank of Indonesia issued Bank Indonesia Regulation (PBI) No 14/15 / PBI / 2012 regarding Asset Quality Rating for Commercial Banks. Under this regulation, Bank of Indonesia encourages national banks to consider environmental feasibility factors in assessing a business outlook.

This Regulation is a follow up of Bank Indonesia on the enactment of Law no. 32 of 2009 on the Protection and Management of the Environment, Government Regulation no. 27 of 2012 on Environmental Permit, and Regulation of the Ministry of Environment no. 5 of 2012 on type of business plans and activities that must have Environmental Impact Assessment (AMDAL).

Indonesia's Financial Service Authority (OJK) launched Roadmap for Sustainable Finance at December 2014:

- Medium-Term (2015-2019) is a continuous financial strengthening activity focused on the basic framework of regulation and reporting system, improvement of

understanding, knowledge and competence of human resources of financial services industry, providing incentives, and coordination with related institutions.

- Long Term (2020-2024) is an activity focused on integration of risk management, corporate governance, bank soundness rating, and development of sustainable integrated financial information systems (comprehensive support from the financial services industry for sustainable growth resulting from alignment between economic interests, Social and environmental).

Agricultural Institutional Support on Sustainability Development

Agriculture has a very strategic role throughout the history of human life. Xenophon, the Greek philosopher and historian who lived 425-355 BC said that "Agriculture is the mother and nourishes of all arts" (Malik 2015), if agriculture goes well, others culture will grow well too. The paradigm is still relevant to the conditions facing Indonesia today. Indonesia will not be a strong country if not based on a strong agricultural sector.

At the Indonesian multidimensional crisis, agriculture sector proved to be persisting in that condition because it relies on its own resources based sector. The important role of agriculture in Indonesia's economic development can be seen from several indicators (Dwi Astuti, 2008): (1) large resource potential and a large share of national income; (2) the ability of the agricultural sector to absorb labor in large numbers; (3) the ability of the agricultural sector as a source of basic food for the community; (4) the ability of agricultural commodities as a determinant of price stability; (5) encouraging exports and reducing imports; (5) as raw material of industry sector; (6) the high value of sectoral linkages both backward linkage and forward linkage.

The institutional function in the agricultural context is a planned and structured effort to organize all the elements involved in a series of community-based production process. The current orientation of agricultural development in Indonesia based on the agribusiness system. The role of agricultural institutions, including the institution of farmers, will determine the success of agricultural development. According to Anantanyu (2011), institutional farmers in rural areas contribute to the acceleration of farmers socio-economic development; Accessibility to agricultural information; Accessibility to capital, infrastructure and markets; and the adoption of innovation agriculture. In addition, the farmers institutional presence will make it easier for the government and other stakeholders to facilitate and empower of the farmers.

The institutional farmer establishment has several roles, namely: (a) interorganizational tasks to mediate society and state, (b) resource tasks include mobilization of local resources (labor, capital, material, information), (c) service tasks may include service requests that describe the development objectives or coordination of local demands, and (d) extra-organizational tasks require local demand for bureaucracy or outside organizations of society against interference by outside agents (Esman and Uphoff in Garkovich, 1989).

Based on Anantanyu (2009)'s study, strategic steps in developing farmer institution can be done as follows:

1. Increase agricultural extension support.
 - a. Increase the extension of facilitators in facilitating farmers, including: mastery of materials, communication skills, attitudes toward the target, and the commitment to the profession

- b. The use of appropriate extension approach is consistent with the characteristic of target audiences, including: information conformity, method accuracy, use of various extension techniques, and use of media in counseling.
 - c. Strengthening of agricultural institutional extension, including: availability of extension program, easy access, support facilities needed, and program implementation.
2. Enlargement the role of external stakeholder
 - a. Facilitating local leadership support.
 - b. Bridging the role of external stakeholder (government, private sector, and other institutions).
3. Increasing group dynamics as a learner group, through:
 - a. Improved understanding of group goals.
 - b. Developing a structure.
 - c. Developing task functions.
 - d. Improving group coaching and development.
 - e. Increasing group cohesiveness.
 - f. Encouraging group atmosphere.
 - g. Creating group tension.
 - h. Encouraging group effectiveness.
4. Developing farmers capacity, carried out through:
 - a. Increasing education, both formal and non-formal, for farmers who support business or agribusiness.
 - b. Facilitating in various agribusiness activities.
 - c. Encouraging the ability to strive to increase revenue.
 - d. Facilitating the provision of agribusiness activities for farmers.
 - e. Providing learning resources including information required by farmers.
5. Raising the participation of farmers in farmer's community. Participation in their community is interpreted by an active choice of member to take a role in self-actualizing in improving the quality of life. Effort to increase the participation of farmers in the institutional is done by a gradual process in accordance with the level of development of farmers community, which include :
 - a. Awareness, among others: the growth of understanding of specific issues, provision of social facilities, fosters local leadership, fosters cooperation, builds insights about coexistence, creates commitment togetherness, and improves the ability of farming and social ability.
 - b. Organizing, among others: improving the ability of resource management, enhancing the ability of collective decision making, leadership development, and act of preparing institutional facilities and infrastructure
 - c. Consolidation, among others: stabilization of institutional vision, enhancement of entrepreneurial skills, and networking and cooperation among institutions

Food and Energy Security (KKP-E) As Green Banking Role Model

The green banking paradigm in some banks is inseparable from the bank's top management internal awareness. Even external impulse can affect the bank's business behavior to the practice of green banking. According to Ritu (2014), green banking products that can be implemented in India are (1) Green loans; (2) Green credit cards; (3) Green CDs; (4) Online banking; (5) Green saving accounts (6) Mobile banking. While in Afroz (2017) study in Bangladesh, Islamic Bank Bangladesh (IBBL) introduced ecology product considering the environment affects. Solar Panel Investment Scheme, (2) Agricultural Implements Investment Scheme; (3) Rural Development Investment Scheme; (4) Micro-Enterprise Investment Scheme; (5) Mudarabah Savings Account for Farmers; (6) *Mudarabah* Savings Account for Students; (7) Women Entrepreneurs' Investment Scheme; (8) *Mudarabah Waqf* Cash Deposit Account; (9) Small Business Investment Scheme, etc.

Actually, In Indonesia, some state-owned banks have been long liquid lending which encourage raising agricultural production and achieving self-sufficiency in food and productivity of biofuel-producing plants. Refer to the Minister of Finance Regulation No. 79/PMK.05/2007, Food Security and Energy Credit, hereinafter abbreviated as KKP-E, is investment credit and/or working capital provided in order to support the implementation of food security program and biofuel raw material development program. In this Ministerial Regulation further explained that Food Security Credit (KKP-E) is investment credit and working capital given by Bank to the farmer, breeder, fisherman and fish farmer, and fish cultivator in financing the intensification of rice, corn, soybeans, cassava and sweet potatoes.

The development of sugar cane cultivation, beef cattle farming, poultry and ducks, fishing and fish cultivation, and to the cooperative. Procurement of grain, corn and soybean to produce vegetable and/or animal foods are objective of this program. In addition, the program develops plant-based fuel crop as an effort to increase the production and productivity of biofuel-producing plants to meet the need of alternative energy sources (biofuel).

Business activities that can be financing through KKP-E include :

1. Development of rice, corn, soybean, sweet potato, sugar cane, cassava, peanut, and sorghum;
2. Development of horticultural crops such as: chili, red onion, ginger, potato, and banana;
3. Procurement of primary food in the form : grain, corn, and soybean;
4. Beef husbandry, dairy cattle, cow breeding, layer chicken, meat chicken, duck, and Quail;
5. Fishing, shrimp cultivation, indigo, *gurame*, *patin*, catfish, tiger grouper, and gold fish, and seaweed development;
6. Procurement/rejuvenation of equipment, machinery, and other facilities necessary to support livestock and fishing business activities

As a guideline for the implementation of KKP-E, the Ministry of Agriculture issued Ministerial Regulation No: 57/Permentan/KU.430/7/2007 on the guidance of indicative requirement of credit ceiling amount at each sector. The executing bank appointed by KKP-E includes 22 Banks, comprise some Commercial Banks: Bank BRI, Mandiri, BNI, Bukopin, CIMB Niaga, Agroniaga, BCA, BII and Artha Graha and some Regional Development Banks: BPD North Sumatra, West Sumatera, South Sumatera,

West Java, Central Java, DI Yogyakarta, East Java, Bali, South Sulawesi, South Kalimantan, Papua, Riau and West Nusa Tenggara. The most active bank channeling KKP-E fund was Bank BRI as one of the state-owned bank that has a wide network of offices throughout Indonesia.

For the KKP-E credit role model see Figure 1, Farmers through the group of farmer formulate a definitive plan of group needs (RDKK) in line with agricultural commodities to be planted or livestock and fishery commodities to be cultivated.

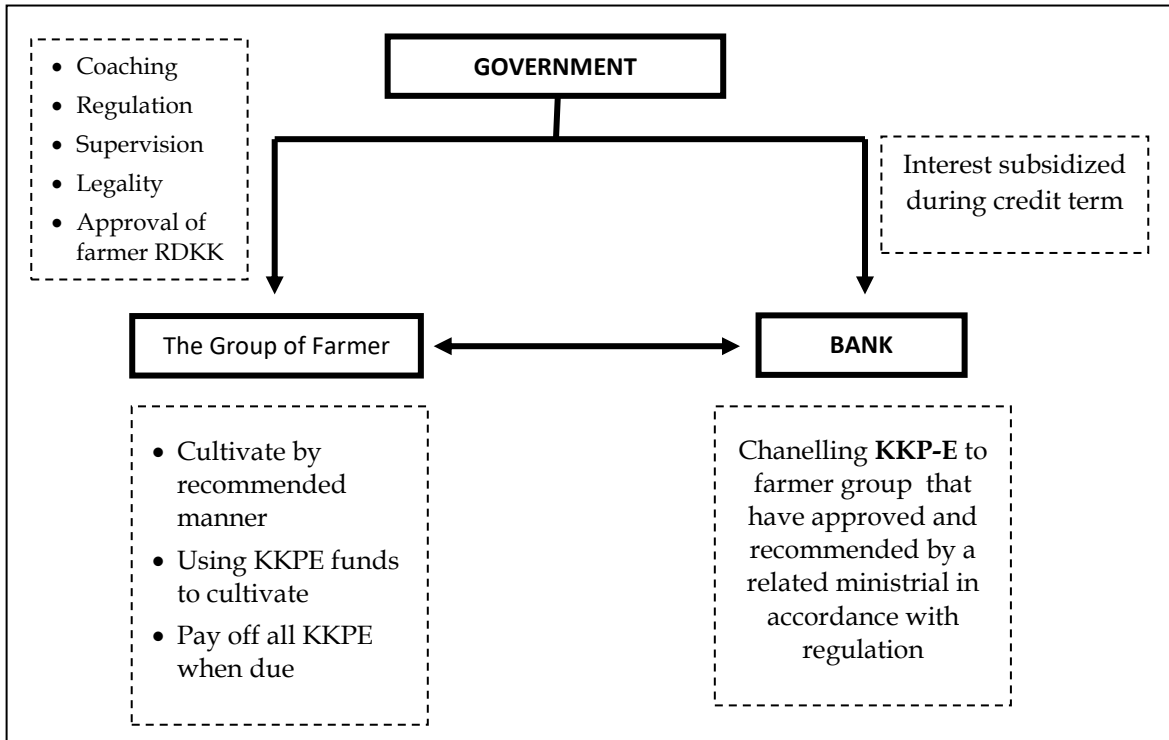


Figure 1. Role Model Channelling of KKP-E

Source: Ministry of Finance Regulation No. 79/PMK.05/2007 and Ministry of Agriculture Regulation No: 57/Permentan/KU.430/7/200

RDKK legalized by the relevant office of agriculture, livestock and marine fisheries. Banks and relevant extension officers verify the truth of the RDKK and the suitability between the number of members and the land area. After getting approved from bank, credit is disbursed. Periodically an extension officer conduct guidance and mentoring of crop and cultivation. On the credit maturity, the government through the ministry of finance provides interest subsidies according to the agreement between the banks and the related ministries.

Further, the role model of KKP-E liquefaction and credit return can be seen at the Figure 2 below about the principal down pattern once paid off.

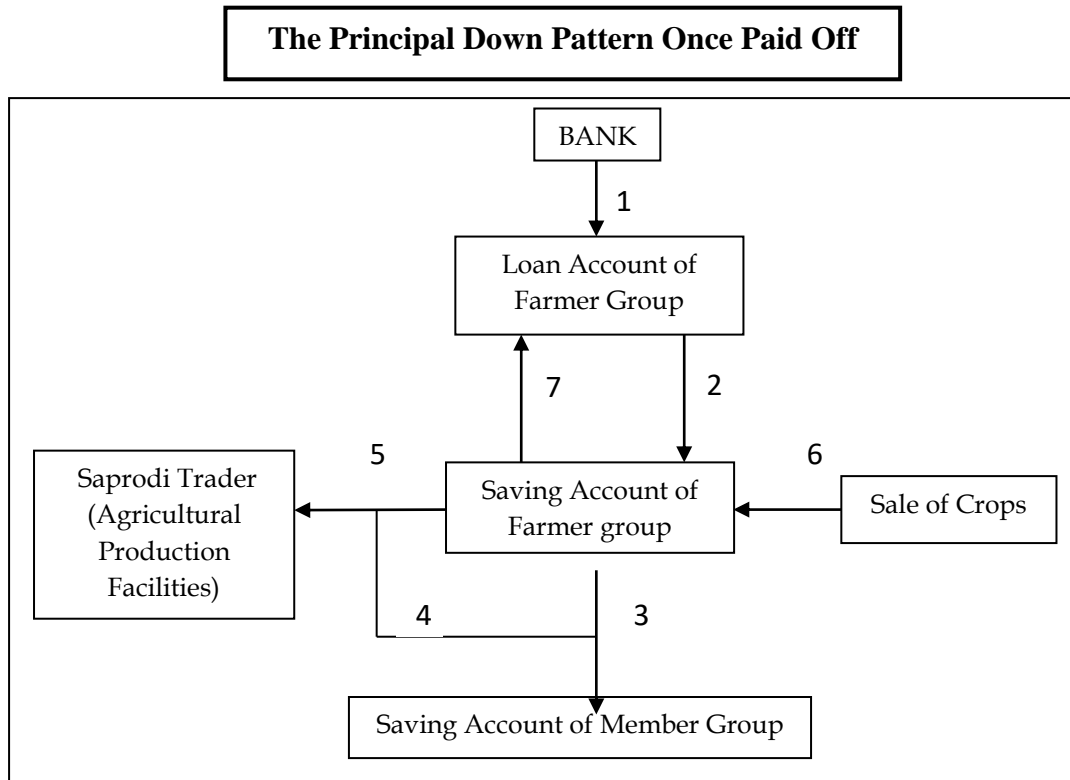


Figure 2. Pay Off Pattern

Flowchart information:

1. Liquefaction of KKP-E to farmer group's loan account.
2. The disbursement of KKP-E from the Group's loan account to the group's savings account
3. Distribution of KKP-E from group's saving account each deposit account all of group member.
4. Transfer of KKP-E fund in the saving account of each group member to the saving account of farmer group based on standing instruction by each member of the group to the bank.
5. Using KKP-E fund pursuant to a definitive plan of group needs to purchase the agricultural production facilities
6. After harvest, member of farmer group deposit all principal and interest to the group's saving account ..
7. KKP-E installments.

Note: Group's savings account and each member's deposit accounts in a blocked state. Block accounts are opened when there is a disbursement request approved by the authorized official.

Loans which base on the resource are enough to help increase crop production, livestock production, and fishery production. During the period 1973-2014, food crop production increased in almost all types of the food crop. Rice as the main food, its production increased by 42.7 million tons during the period. Meanwhile, in horticultural crop production, there was a sharply fluctuate in a number of its staple crops except for the production of chili and red onion which tended to increase during the same period.

Table 2. Food Crop Production 1973-2014

Year	Rice (million tons)	Corn (thousand tons)	Soybean (thousand tons)	Peanut (thousand tons)
1973	28,1	2912,0	446,2	303,5
1978	25,8	4029,2	616,6	445,8
1983	35,3	5086,9	536,1	460,4
1988	41,7	6651,9	1270,4	589,3
1993	48,2	6459,7	1708,5	638,7
1988	49,2	10169,5	1305,6	692,4
2003	52,1	10886,4	671,6	785,5
2008	60,3	16317,3	775,7	770,1
2013	71,3	18511,9	780,6	701,7
2014	70,8	19,088,4	955,0	638,9

Source: Indonesian Central Bureau of Statistics

In plants that are expected to be an alternative energy source (biofuel) also increased in production as shown by the following table:

Table 3. Alternative Energy Crop Production Year 1973-2014

Year	Cassava (thousand tons)	Java sweet potato (thousand tons)	Year	Sugar cane (thousand tons)
1973	9399,2	2180,2	1975	1234,7
1978	12902,0	2082,8	1980	1260,0
1983	12102,7	2213,0	1985	1898,8
1988	15471,1	2158,6	1990	2120,0
1993	17285,4	2088,2	1995	2060,0
1988	14696,2	1935,0	2000	1690,0
2003	18523,8	1991,5	2005	2241,7
2008	21757,0	1881,8	2010	2288,7
2013	23939,9	2386,7	2013	2553,6
2014	23436,4	2382,7	2014	2575,4

Source: Indonesian Central Bureau of Statistics

The livestock production of meat, eggs, and milk upsurge, from 2010 to 2014, as can be seen in the following table:

Table 4. Production and Percentage of Meat, Dairy and Egg Growth/Decrease 2010-2014

Year	Meat / Beef (thousand tons)	% meat growth	Egg (thousand tons)	% Egg growth	Dairy (thousand tons)	% Dairy growth
2010	2366,2	7.3	1379,6	5,6	909,5	9,9
2011	2554,2	7.9	1479,8	7,3	974,7	7.2
2012	2666,1	4.4	1628,7	10,1	959,7	-1,5
2013	2882,0	8.1	1728,3	6,1	786,8	-18.0
2014	2982,6	3.5	1812,8	4,9	798,4	1.5

Source: Indonesian Central Bureau of Statistics

KKP-E as a form of subsidized loan proved to be quite a contribution to stimulate credit to ecological conservation by increasing biodiversity and animal resources in order to raise the production of food crop, cultivation of livestock and fishery. The program also develops fuel crop as an effort to increase the production of biofuel plants to meet the needs of renewable energy (biofuel).

Besides its superiority, KKP-E as one of the forms of subsidized loan has several weaknesses, so many appear criticism. In the Marguerite study (2001), she showed many institutions providing subsidized credit programs—especially state-owned agricultural credit institutions—suffer from political interference, haphazard governance, poor and often corrupt management, untrained and unmotivated staff, unwanted products, low repayments, high costs, and high losses. In another study (Christen, Rhyne, and Vogel 1995) also concluded that subsidized microcredit programs requiring frequent injections of fresh funds, the program will quickly consume its capital in financing routine operational costs. According to them the lesson of thousands of times. Other researchers (Yaron, Benjamin, and Piprek, 1997) said that subsidized lending programs are often seen as a political entitlement rather than a business transaction, lending institutions typically put little effort into collecting and usually do not foreclose on collateral in case of default.

Assistance and technical training for customers in subsidized credit programs are also highlighted by some researchers, Adams and Von Pischke (1992) in their research resulted the borrower training of this kind not only comes at a high cost to the institution, hindering its efforts toward self-sufficiency but is often considered to be of little value by borrowers. According Mutua (1994) in his research revealed the experience of the Kenya Rural Enterprise Programme (K-REP) in linking training with credits instructive, It became obvious that the 'integrated' method of developing micro-enterprises, which combined traditional methods of making loans with intensive entrepreneur training and technical assistance, had limited impact on the beneficiaries, was costly, and could be sustained or expanded only through grant funding. Marguirite (2001) in her study revealed bank staff in subsidized credit programs typically spend their time in unproductive ways. For example, they may engage in futile monitoring of the end use of loans which cannot be effectively monitored because credit is fungible. They may train borrowers in their business activities (which the borrowers already know better than the bank staff) or in new projects that neither one knows.

The weaknesses of subsidized credit have been refined in KKP-E credit as shown in Figure 1. Bank isn't disbursing subsidize, but it given by the government on

credit term must be returned on time according to maturity. It's condition no effect to the bank operation as an intermediary institution. The government provides subsidize for farming, livestock, and aquaculture lending in the concern of ensuring the availability of feed ingredients and alternative crop production of energy substitutes. If the customer fails to pay installment, the subsidy will be revoked and the customer required to return in full without any subsidy. Guidance and technical assistance in the KKP-E were not done by the bank but extension workers from the relevant office of the Department of Agriculture, the Department of Animal Husbandry and the Department of Fisheries and Marine. So with this role model, the bank can still perform its role as an intermediary institution that both mobilizes deposit and lending.

CONCLUSION

Green banking is a long-term business strategy that creates a benefit to the empowerment and conservation of the environment as a whole, in addition to profit aims. The concept of green banking began to be known in the world since the middle of 2009. Actually, the Indonesian banking since the last quarter 1970s has been contributed to sustainable development by channeling credit that stimulates the ecological conservation which increases the biodiversity. The program also develops plant-based fuel crop to meet the needs of renewable energy (bio-fuel). Food and Energy Security Credit (KKP-E) refines the concept of subsidized lending programs while according to some researchers failed in other countries. The implementation of subsidized credit program in Indonesia can be adopted by other countries, collaborating among banking as a distributor and the government support through the technical department to providing technical assistance and guidance based on the resources base sector of each country. Next research can develop by conducting quantitative research to measure the extent of the subsidized lending since the 1970s and its contribution to development in Indonesia.

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