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DESK REVIEW

Smallholders Model in Selected Commodities

SHARP

Background Information

The Smallholder Acceleration and REDD+ Programme (SHARP) is a multi-stakeholder partnership of organisations collaborating with the private sector to support sustainable smallholder development.

Smallholders play a crucial role in global agricultural production and are likely to become increasingly important as global demand for sustainable agricultural product grows.

Worldwide 500 million smallholder farmers support a total of 2 billion people and smallholders are estimated to supply 70 percent of the world's food, including a significant proportion of agricultural commodity crops. In many countries production of agricultural commodities by smallholders is leading to expansion of production areas or changing practices in existing areas. This can be hugely beneficial, contributing to improved livelihoods and food security. However, production can also have negative social and environmental impacts, depending on the models of production adopted.

Many companies are also making commitments to producing and sourcing agricultural commodities responsibly, while at the same time needing to ensure that they contribute to local livelihoods and do not exclude smallholders from supply chains.

In many cases companies play a central role in encouraging or even driving the expansion of smallholder production through the provision of markets, financing or technical support, or through the development of formal outgrower or smallholder schemes. Therefore, they often have a strong influence on the type of production model used. So it is extremely important that there is an understanding amongst the companies about the implications of the approaches they use or support so that they can try to ensure that the best outcomes for smallholders and the environment are achieved.

There are many different models of smallholder production with different financing, land tenure, management, environmental and social aspects and livelihoods benefits. The different types of arrangements and organisation structures for smallholders can generally be distinguished into three different categories, including:

1. **Independent farmers or groups of farmers** – these are farmers who manage their own lands without any direct support from either government or private companies. Independent farmers have greater autonomy in the management of their farms, and are free to sell their products to any buyers either directly or through traders;
2. **Supported smallholders** – These are farmers who manage their own plantations with some support from government or the private sector. The basic concept is that the government agency or private company provides technical assistance and inputs of seed stock, fertilisers and pesticides, access to finance, etc. There generally is a verbal or written contract delineating the agreement, and part or all of production by these smallholders are sold to the company.
3. **Managed smallholders:** These are farmers, whose land is fully managed by the company. Generally, the management activities include land preparation, planting, maintenance and harvesting activities. All production on smallholder lands is typically sold to the company, and

the costs of management are generally subtracted from the incomes received by the smallholders.

The actual challenges and level of intensity of the various issues faced by smallholders vary between type of smallholder, region and commodities. Moreover, in several countries and for some commodity crops effective models for smallholder development already exist and significant experience has already been made to address and overcome the many challenges and barriers faced by smallholders.

Therefore, as a basis, SHARP is commissioning a series of studies, to help inform the SHARP Programme activities. The purpose of the study is to undertake a systematic and focused analysis of the existing information, to understand more comprehensively those elements of smallholder models that enable responsible production, both environmentally and socially.

Objective of the study

The objective of this study is to identify successful models or components of models for sustainable commodity crop production that can be adapted to specific contexts in order to scale up sustainable smallholder development.

To identify such successful components or smallholder production models SHARP wants to first establish a baseline of existing smallholder development models and analyse what each model delivers and why, as well as identifying the major challenges to its implementation.

One of the aims of this baseline study is to provide an overview of the work done to date, and identify areas where SHARP can complement and provide further support to.

The output from this study will be shared and form the basis for the discussion platforms on suitable models for smallholder development in Indonesia that SHARP plans to organise. Subsequently stakeholders can have a dialogue on if and how components of existing models fit with and address their needs.

1. OIL PALM

Production trend[i]

Figure 1 presents the production trend of oil palm plantation in Indonesia for the period of 2000-2011. It suggests that the large scale companies (*private sectors, PBS hereinafter*) managed about 4.65 millions hectares (52.22%), smallholders (*PR hereinafter*) managed about 3.62 millions hectares (40.64%) while the state-owned oil palm companies (*PBN, hereinafter*) own 0.64 millions hectares (7.15%). The total area of oil palm plantation by 2011 was 8.91 millions hectares.

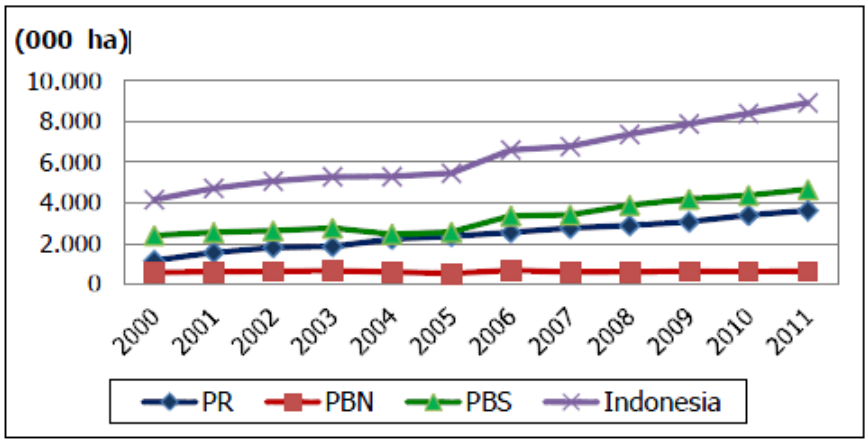


Figure 1. Development of oil palm plantation area during the period of 2000-2011

In line with the area development, the CPO production also increased for the same period (Figure 2). The CPO production reached 7 millionstonnes in 2000 while it reached 22.51 millionstonnes in 2011. The production increase happened in the PBS and PR area, while the PBN production was relatively constant or even decreased. The CPO production from large scale companies (PBS) was 11.97 millionstonnes (53.06%), smallholder was 8.63 millionstonnes (38.33%) and the state-owned company produced 1.94 millionstonnes (8.61%).

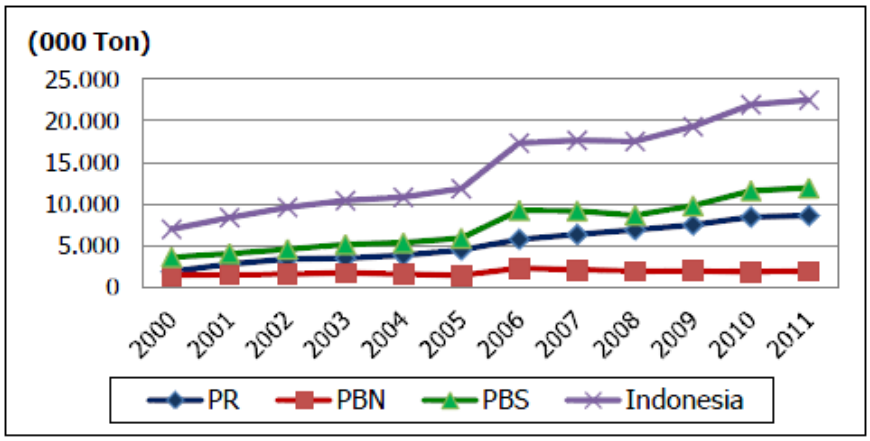


Figure 2. CPO production for the period of 2000-2011 in Indonesia

At the meantime the oil palm productivity highly fluctuated in the same period. The highest productivity happened in 2007 (3.619 kg/ha) but it decreased again the year after. The productivity was 3.450 kg/ha in 2011. See Figure 3.

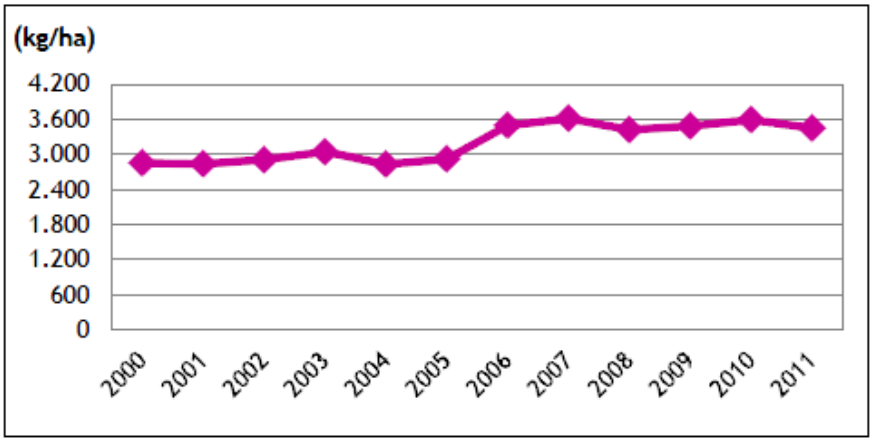


Figure 3. Productivity rate of oil palm, 2000-2011

In the period of 2010-2012, the production surplus reached 18.81%. The surplus reached in 2010 was 1.55 millionstonnes, increasing to 2.17 millionstonnes and then decreasing to 2.12 millionstonnes (see Table 1 below). This surplus might be resulted from the use of oil palm in domestic needs other than cooking oil.

Table 1. Projection of Surplus/Deficit of Palm oilIndonesia, 2010-2012

Year	Production (Tonnes)	Demand (Tonnes)	Surplus/Deficit (Tonnes)
2010	20,369,032	18,818,790	1,550,242
2011	21,916,549	19,746,796	2,169,753
2012	23,523,775	21,404,944	2,118,831
Growth average			**18,81%**

Smallholders Categories

In Indonesia, there are two generic types of smallholders in the palm oil sector:

a. Supported Smallholders – in Indonesia also referred to as Nucleus Estate Smallholders (NES) or Plasma scheme smallholders; and
b. Independent Smallholders

a. Supported Smallholders or Plasma or Nucleus Estate Smallholders (NES), is a partnership between palm oil companies as the Nucleus (core) and smallholders as the plasma. In this type of partnership, the Company as the nucleus is in charge to assist developing their plasma's plantationand guide smallholders as the plasma in a partnership system, which mutually benefitting and sustainable.

There are three different types of supported smallholder models in Indonesia, including[1]:

[1]See also, IFC Diagnostic Study on Indonesian Oil palm smallholders, September 2013

	1) The smallholder as an Outgrower; in this model, the smallholders cutlivates their land and are obliged to sell their FFB to the company, where the company provides technical assistance etc. 2) The smallholder as a Worker; farmers work as labourers on the land of the estate. 3) Smallholders as Shareholder; in this model, the company is responsible for the management of the land of smallholders. The smallholder farmers do not play a role in the farm management but instead receive a share of the income generated by the company for a specific smallholder block. It should be noted that in line with other baseline studies conducted by SHARP, it has been decided to use the above categorisation of smallholder models rather than the categories mentioned in the ToR. To be consistent, the category ' managed smallholders' is defined as a sub-category of Supported smallholders (e.g under Shareholder). b. Independent Smallholders are farmers who work on developing and managing their own plantation without having a specific contract with a company. There are Independent Smallholders that do not receive any support at all and that are completely independent. They are developing and managing their plantation without assistance or support from others (government or palm oil company). On the other hand, there are also Independent farmers that gain support in form of palm oil seeds from the governmentor cooperatives to develop their plantation. For example in Sanggau District, in which the local Plantation office allocate / provide palm oil seeds for the independent farmers approximately for 500 hectare each year.
Independent smallholders[ii]	At present the independent smallholders' area contribute 28-30% of the total palm oil development area in Indonesia. The independent farmers or smallholders have the following challenges or characteristics: - They work in individual basis, not organized as in the plasma as their plantation locations are scatterred. - Land limitation as they only have an SKT (Surat Keterangan Tanah, a letter of land ownership issued by a village head). It is rare to find them with the BPN-issued land certificate as the process of getting it is very expensive and they are not familiar to the bureaucracy. - They clear land manually as the mechanical method is expensive for them. - No access to financial resources especially banks, as Banks require a lot of paperwork including the recommendation from companies which will absorb the Fresh Fruit Bunch (FFB). If they got credit

	approval from Banks, they always pay the higher interest rate than others. - From the production side, either quantity or quality, the independent smallholders produce less than one ton per hectare per month. The recovery rate of the FFB is always below standard. This is the result of many factors including the usage of bad quality seeds, low maintenance and, weak management which then implies that these farmers cannot bargain in deciding the FFB price. In addition, they have to sell the FFB through middlemen who usually decide the price far lower than what the government has decided.
Supported smallholder groups[iii]	The farmers group supported by a company is called Plasma. The palm oil Plasma NES Program in Indonesia has developed in three different stages as follows: **1. Perusahaan Inti Rakyat Perkebunan (PIR-Bun) model** The development of the Plasma mode began in the 1970s, in 1977/1978 based on Indonesian Presidential Decree No.11 of 1974 on the second Five-Year-Plan (REPELITA II), the Government launched NES (PIR-BUN) programme, which refers to a plantation development scheme by appointing large plantation as the nucleus and local community as the smallholder. This PIR-BUN model aims to increase farmer's welfare through oil palm development. In this model the company (either private or state-owned companies) becomes a core plantation while the farmers are the plasma members. The core company serves to develop an economy unit consisting of core plantation and the mill, plasma members' plantation, housing for the plasma members and other public and social facilities according to the guidance of agriculture service office. The core company also functions to mentor the farmers to manage the plantation well. When the oil palm can be harvested, the core company is obliged to purchase the FFB from the plasma members with the price decided by the government and help the members to pay back their loan to the bank. According to the Regulation of Ministry of Agriculture, No. 14/Permentan/OT.140/2/2013, on Guidelines on Setting up Price for Palm Oil FFB Produced by Plantation, the price of FFB is set through FFB Price Committee Meeting set up by the Governor with the membership composed of elements from (a). Province, District/Municipal Government; (b).Province, District/Municipal Office; (c). Plantation Companies; (d). Smallholders Representation

	(smallholders association); and (e).Other relevant institutions (such as GPPI (Indonesian Plantation Association), GAPKI (Indonesian Palm Oil Entrepreneur Association), APKASINDO (Indonesian Palm Oil Growers Association)). The duties of the FFB Purchasing Price Committee are as follows: (a). formulating and proposing the "K" Index tothe Governor; (b). monitoring the implementation of "K" Index along with other components that are relevant with the FFB purchasing price formula; (c) monitoring the implementation of determining the yield of Crude Palm Oil (CPO) and Palm Kernel (PK); (d). monitoring the application of the provision and FFB purchasing price as set up; (e). regularly provides information on the average price of the sale of Crude Palm Oil (CPO) and Palm Kernel (PK) for companies and smallholders/smallholders association; (f).solving any conflict, which might emerge between the companies and smallholders/smallholder association. The price of FFB is determined based on the formula of : H FFB = K {Hms x Rms + His x Ris}, in the sense: - H FFB : Price of FFB received by smallholders at factory level, expressed in Rp/Kg - K : Proportion index which shows parts received by the smallholders, expressed in percentage (%); - Hms :Average price of Crude Palm Oil (CPO) as weighted both based on realization of export proceeds (FOB) and local for each company during the previous period, expressed in Rp/Kg ; - Rms : Crude Palm Oil (CPO) yield, expressed in percentage (%); - His :The average price of Palm Kernel (PK) as weighted based on both realizationofexport proceeds (FOB) and local for each company during the previous period, expressed in Rp/Kg; - Ris :Palm Kernel (PK) yield, expressed in percentage (%). Such method in setting up FFB price is conducted at least once a month, in this case the price of FFB refers to the transport cost of points where FFB is taken to processing factory and the purchasing price of palm oil FFB (not the basic price of palm oil FFB). After the FFB price is set up, then the price would be announced to the mass media such as newspaper and radio in each region. The duties of the Company in terms of paying loan to the bank in relation to the development of palm oil plantation includes: (1). Provide assistance for smallholders, farmer groups, and cooperatives; (2). Receiving FFB produced by smallholders and withhold some amounts from smallholders' FFB sale to pay for the loans installment to the bank.

Assistance for smallholders is conducted through organizing trainings, regular meeting with farmer groups or cooperative, assistance in procuring fertilizer, assistance in road maintenance, and so on.

The farmers function to maintain and manage their plantation as mentored by the core company, to sell their FFB to the core company with price as agreed by the government, core company and farmers organization (cooperatives). Repayment of costs of plasma plantation is done by the farmers by paying installment which usually is in the form of deduction of 30% of the FFB production every month.

Development costs of smallholder palm oil plantation that are covered by the smallholders include:

1. Cost for opening and preparing the land;
2. Cost for building road and bridge, as well as other kinds of infrastructures;
3. Buying palm oil seeds;
4. Cost for planting; and
5. Cost for tending the plants from after the planting up to handing over the plantation to the smallholders (for example purchasing fertilizer, herbicide, etc.);
6. Management Fee;
7. Land certification fee.

Meanwhile, the company does not cover any cost in developing the plantation for smallholders because all the costs are imposed to the smallholders through funding from Bank, and the loan repayment will be conducted after the plantation yields and handed over to the smallholders.

The PIR-Bun project got support from the World Bank in the period of 1977-1983 through 7 projects with the budget of USD 655 million. The PIR-Bun project firstly was done in AlueMerah (Aceh) and Tabalong (South Kalimantan).

2. Perusahaan Inti Rakyat Transmigrasi (PIR-Trans)

In the next decade throughout 1980s, the government launch Nucleus Estate Settlements for transmigrants (PIR-trans). This refers to Presidential Instruction No. 1 of 1986 on NES based plantation development which is linked to transmigration program. The different is that while PIR-BUN only involves local community, PIR-Trans involves both local community and transmigrants.

The PIR-Bun wasaimed at increasing non-palm oil commodities, reducing poverty, increasing the farmers' welfare, supporting regional development and success of transmigration program.

This InPres was followed up with a decree of Minister of Agriculture No.333/Kpts/KB.510/6/1986 on guidance of PIR-Trans's oil palm development. The eligible participants of the PIR-Trans were

	transmigrants and the farmers with shifting cultivation practices from the adjacent forests. This model allowed the farmers to own a 2-hectare land (privately owned), which they planted with oil palm. The results of the FFB sales were for paying debt through installment (30%), 20% for maintaining costs and the remaining 50% was the net income for them. **3. Kredit Koperasi Primer untuk Anggota (KKPA, a Primary Cooperative Credit for Members)** In 1995-2000, the government issued a new program for NES farmers known as PIR KKPA (Primary Cooperative Credit for Members for NES). PIR KKPA is a funding facility provided by the Government in the form of Credit for Primary Cooperative for its members. In this PIR KKPA modelthe core company is responsible as a guarantor of the cooperative's debt to bank. In Bangka, the KKPA was developed and modified to KebunKelapaSawit Rakyat (KKSR, Community's Oil Palm Plantation) involving local government. In this model, the farmers provide land and labors, the government provides costs for land clearing and production facilities and the core company provides seedlings and do mentoring to the farmers.Compared to PIR and KKPA, this KKSR model allows the farmers to be more independent as they got much bigger role from the very beginning of oil palm development, mentored by the core company and local agriculture service office. Currently, the latest program for the Plasma NES scheme, which was initiated in 2007, is the Plantation Revitalization Program. This program rests on Regulation of Ministry of Agriculture no. 33 of 2006. This plantation revitalization program is conducted to expand, rejuvinate and rehabitalize smallholder estates in both new and old development areas by using "one roof" management, in which companies as the core are fully in charge in managing smallholder plantation. According to the Ministry of Agriculture Data (2011), the size of community oil palm plantation was 3.6 millions hectares comprising 837,000 hectares of plasma (schemed smallholders) and 2.8 millions hectares of independent farmers. In rough estimate the supported smallholder (plasma) area is 9-10% of the total area of oil palm plantation in Indonesia.
Managed farmer groups	For the purpose of this study, smallholders have been subdivided into Independent Smallholders and Supported smallholders. The managed farmer groups are considered a sub-category of Supported smallholders. Please refer to categorisation under Supported Smallholders above.
Government support or policy?[iv]	- **Plantation Revitalization** The program of plantation revitalization is an effort to accelerate the community oil palm plantation through expansion, rejuvenation and rehabilitation of the plantation, supported by an investment credit and

	interest subsidy by the government, involving companies (for both private sector and government companies) in developing plantation, processing and marketing.The plantation revitalization aims at providing more job opportunities and communities' income through plantation development, increasing competitiveness through productivity improvement and development of downstream industries, which then leads to improvement of national economy and regional development. This plantation revitalization has been supported legally by various government institutions as follow: a. Regulation of Minister of Agriculture (PMP) No.33/Permentan/OT.140/7/2006 on Plantation Development through Plantation Revitalization; b. Regulation of Finance Minister (PMK) No.117/PMK.06/2006 on Credit for Vegetable-based energy development and plantation revitalization (KPEN-RP); c. Regulation of Forestry Minister (PMKH) No. P.26/MENHUT-II/2007 on the second revision of the Forestry Minister's Decree No. 292/KPTS-II/1995 on forest zone acquisition; d. Letter of Finance Minister NO.S-313/MK.05/2007 on interest subsidy for KPEN-RP; agreement with 16 banks on financing vegetable-based energy and plantation revitalization; e. Circular of National Agrarian Office (BPN) No. 3817-310.21-D.II dated on 6 December 2007 on Standard of Cost of Private ownership certificate in the plantation revitalization; f. Agriculture Minister's Decree No. 143/Kpts/LB.310/2/2008 on appointment of Plantation Research Institution to carry out any research on plantation to support the revitalization program in Indonesia; g. A decree of Directorate General of Agriculture Ministry on maximum cost unit for developing plantation revitalization program on dry and wet land, which is issued yearly; h. A decree of Directorate General No. 141/Kpts/LB.110/06/2010 on physical assessment of independent smallholder plantation related to the revitalization of plantation program; i. A letter of Finance Minister No S-623/MK.05/2010 on extension of credit for vegetable-based energy and plantation revitalization (KPEN-RP). The field implementation progress of Plantation Revitalization Program is very slow. Based on Reports from Executing Bank per 31 December 2012, total Loan Agreement only reached IDR 7.37 trillion (19.09%) from the overall committed ceiling of Bank financing which amounted to IDR 38.60 trillion. From the total Loan Agreement mentioned above, the realization of disbursement is only amounted to IDR 2.71 trillion (36.77%). Realization of plant development agreement for the area of 213,582 Ha (62.22% from total 343,279 Ha). Some of the causes of the slow field implementation progress of the plantation revitalization program include:

1. Province Spatial Planning (RTRWP) in the Provinces that have the potential to be developed as palm oil field.
2. Companies feel that getting the agreement/permit to join the plantation revitalization program is very complicated, because it required to contact the Governor and Agriculture Office, thus they prefer bank financing through commercial credits than revitalization credit facility.
3. Issuance of land certificates are hampered
4. Minimum supports from the government
5. Socialization of plantation revitalization program is not optimal to the implementer, and
6. Smallholders found it hard to propose for loan to the bank without partnering with a plantationcompany, considering that companies play a significant role as the guarantor or avalist throughout the process of paying the credit. This has caused independent smallholders to feel marginalized throughout plantation revitalization program.

Basically all palm oil smallholders can participate in the revitalization program, but it is required that smallholders must be willing to partner with company, considering that bank requires company as the guarantor or avalist of such farmer credit.

- **Integration of Cattle and Oil Palm Program (SISKA),**

The integration system of livestock (in this case, cows) and oil palm is a system where some cows are raised in the plantation site without disturbing activities and productivity of oil palm. This system aims at getting fodder for cows and green manure for oil palm.

Some studies showed that the SISKA program has improved productivity for both oil palm and cows.

The government support to this program is by providing cows to farmer groups in regions. The budget is locally managed by the regional budget.

There are two types of financing models or cow assistance in the integrating palm oil and cow program (SISKA) which was just been launched, in which:

1. Assistance in form of Cow is provided by the government/company for farmer group, which has to be returned in form of calf as the results of breeding the cow that is provided. Following that, the calf as repaid will be distributed to other farmer group.
2. Assistance in form of Cow is provided for farmer group from company for farmer group, but the cow provided will become credit for the farmer, which repayment will be deducted through the sale of FFB from farmer to the company each month. The price of the cow that has to be covered by smallholder is around IDR 3.5million to IDR 4 million and the age of the cow is around 1 year. That price is usually lower than the market price of cow in general because the company

	subsidized it as a form of CSR program implementation for their smallholders. - **Regulation of Agriculture Minister No.98/2013 to replace the similar regulation No. 26 pada 2007,** Regulation of Ministry of Agriculture No.26/2007 which has been amended with Regulation of Ministry of Agriculture No.98/2013 on Plantation Business License Guidelines. The scope of this Regulation includes: 1. The types and permits of plantation business; 2. Requirement and procedures of plantation business license application; 3. Partnership; 4. Changes on the size of land, types of plants, and/or changes on the cultivation capacity, as well as business diversification; 5. Technical recommendation of plantation business; 6. The duties of Plantation Companies; 7. Assistance and monitoring; and 8. Administrative sanction. The regulation also mentioned that the company should allocate 20% at minimum of the total area managed by the company.
What are the most pressing issues for smallholders involved in producing the crop?[v]	Things that work out well with NES program or plasma model: 1. The existence of plantation assessment system from Plantation Office before the plantation is handed over to the smallholder, which makes plantation with poor qualities/unfit becomes the liability of companies to improve it, this ensures that the plantation handled by the smallholders are all in good qualities. 2. Smallholders are gaining more certainty/guarantee to sell their FFB products to company, because they are bound by agreement. 3. The smallholders get the FFB selling price in accordance with the price as set up by the Pricing Committee, which certainly higher compare to when they sell it to middlemen as practiced by independent smallholders, because the price set up by middlemen is always lower compare to the price set up by the government. 4. The smallholders are prioritized to receive supports from companies (as the implementation of the companies' CSR program), such as: - Provides fertilizer and production facilities - Maintenance of road and bridge infrastructure to ensure smooth access in transporting smallholders' FFB products as yielded - Supports in form of cow for SISKA program. 5. Some companies also assist their smallholders in obtaining RSPO and ISCC certification, as such practiced by Asian Agri and CARGIL to their smallholders.

6. The supports from companies enable smallholders to increase their income, thus the rate of credit repayment to the bank becomes smooth and could be quickly paid off.

Things that do not work out well with NES program or plasma model:

1. Lack of commitment from company in implementing the deal or agreement that has been made. For example conversion or handover of plantation from the company to the smallholder exceeds the time limit that has been agreed/set up. This of course creates conflict, especially if the plantation that has been developed already reached the harvesting age, in which it creates the impression that the companies only wants to yield the harvest.
2. Lack of transparency in the price set up, because usually the involvement of smallholders in pricing committee meeting is limited to only giving signature.
3. Some smallholders are inconsistent in cultivating their plantation and its infrastructure, which makes the quality and quantity of the plantation production become low, which resulted in low/small income for the smallholders.

Low productivityThe pressing issuesfor smallholders are:

1. Land certification

The biggest issue experienced by the oil palm smallholder is about the land certification. Several things that are different for Independent Smallholders in terms of certifying their field are caused by:

1. The cost of certification is a big burden for smallholder, at the moment per plot (maximum 2ha or per certificate) cost around IDR 4 million. This is not a problem for NES smallholders because this cost is charged to plantation development, thus they can pay in credit once the plantation has yield.
2. Independent smallholders are not familiar with land certification application at the National Land Agency (BPN). Compare to NES smallholder which application is arranged by the company.
3. The status of land that will be certified is also unclear, for example there is no proof of ownership, and thus the land cannot be certified.
4. The owner feels that they do not need or not required to certify their fields considering that they can still sell the harvest.

From the 4 millions hectares of smallholders land, only 11-12% are the certificate holders (Anizar Simanjuntak –Chairman of Apkasindo, the association of oil palm smallholders). The high cost of getting the private certification has become a factor of the difficulty.The cost to get/apply for land certificate for IDR 4 million per plot or per copies creates a big burden for the smallholder, especially independent smallholders, knowing that they have to manage the financing to develop their plantation with their own resources. This is also caused by difficult access of smallholders to

	bank, because the administrative requirements applied by the banks are difficult to fulfil for the smallholders, for example in terms of collateral and so on. **2. Replanting** From the current total area of oil palm plantation, 22% of it needs replanting. The issues under replanting are: a. High costs b. Continuity of partnership between core company and plasma members c. Fulfillment of the farmers' livelihood while they are waiting for the first harvest d. Availability and price of certified seedlings e. Techniques of replanting. **3. ISPO (the Indonesian Sustainable Palm Oil) and RSPO (Roundtable for Sustainable Palm Oil)** Certification costs become an issue rather than technical dimensions of oil palm management. The smallholders are aware of these demanding certification schemes (ISPO, RSPO and the latest one is International Sustainability and Carbon Certification (ISCC)). For schemed smallholders, some of them have been RSPO and ISCC certified (Cargill and Asian Agri). For the independent smallholders, one group in Riau (KUD Amanah) got an RSPO certificate thanks to WWF facilitation. ISPO is a mandatory certification scheme, to which all oil palm companies are obliged to comply. In future this mandatory scheme will also apply to smallholders, including the independent one. But today, it is still far away from that point. These smallholders rely on other stakeholders to get the certification.

2. COFFEE

Production trend[vi]	Indonesia is the third largest producer of coffee in the world after Brazil and Vietnam. The area of coffee plantation reached 1.3 millions hectares by 2011, which consisted of 1 million hectares of robusta and another 0.30 million hectares of arabica. Of the area, 96% are community plantation

(smallholders) and the rest are managed by both private and state-owned companies. Thus, the coffee production of Indonesia relies on the smallholder plantations.

Total Area, Production and Productivity of Indonesian coffee, based Ownership

Ownership	Size (Ha)	Production (Ton)	Productivity (Kg/Ha)
Smallholders	1,245,176	604,840	667
Government	22,873	14,164	785
Private	24,916	14,987	764
Total	**1,292,965**	**633,991**	**672**

Source: Plantation Statistics 2011

Coffee production in Indonesia has been stagnant for the last five years. The production is still low compared to Vietnam. With the size of 1.3 millions hectares, the total production only reached less than 1 million tonnes/hectare in 2012, while Vietnam can produce over this with a smaller plantation area of the size of plantation less than 500,000 hectares. The national production of robusta coffee is 741 kg/ha in average, while arabica is 959kg/ha.

Development of area, production and productivity of coffee in Indonesia during 2008-2011

Ownership	2008	2009	2010	2011*	2012**
Size (Ha)	1,295,111	1,266,235	1,210,365	1,292,965	1,305,895
Production (Ton)	698,016	682,591	686,921	633,991	748,109
Productivity (Kg/Ha)	749	748	779	672	783

Source :Plantation Statistics 2011
*) Interim figure
**) Estimate

Indonesia produced 748,000 tonnes or 6.6% of the world coffee production. That figure comprised 601,000 tonnes of robusta (80.4%) and 147,000 arabica (19.6%). That was the biggest production for the last five years.

Table 3. Size, production and productivity of robusta and arabica coffee in Indonesia for the period of 2007-2012

No	Item	2007	2008	2009	2010	2011*)	2012**)	+/- (%)
A	Size (ha)	1,295,912	1,295,111	1,266,235	1,210,365	1,292,965	1,305,895	0.22
1	Robusta	1,058,477	1,009,214	984,838	958,782	1,041,212	1,053,250	0.01
2	Arabica	237,435	285,897	281,397	251,583	251,753	252,645	1.73

B	**Production (tonnes)**	676,476	698,016	682,591	686,921	633,991	748,109	2.38
1	Robusta	549,085	550,920	534,961	540,280	487,230	601,092	2.40
2	Arabica	127,391	147,096	147,630	146,641	146,761	147,017	3.08
C	**Productivity(kg/ ha)**							
1	Robusta	681	716	724	766	724	771	2.61
2	Arabica	782	783	773	925	925	920	3.59

Source : Indonesian plantation statistics 2011
Note:
****) Interim Figure***
*****) Estimate***

The export of coffee, either raw bean or processed products, has been showing a positive trend in 2012, which is equal to USD1.25 billions with the volume of 449,000 tonnes. This export value increased by 20.5% than the previous years. This export increase showed that coffee business is progressing in Indonesia.

Independent smallholders[vii]

Of the total coffee plantation, 96% of it belongs to the independent smallholders who in average own 0.5 – 2 hectares. As they work on their own without support from others, the productivity and quality of coffee are quite low because of the following reasons:

a. Most of the plantation is developed in the monocultural way without good techniques of cultivation;
b. Low productivity (60% of the production potential) because they do not use excellent quality seedlings or they are not aware of the good seedlings.
c. Pest and disease to coffee plantation such as Hypothenemus hampei (ruining fruits), *Xylosandrus* sp. (ruining branches), *Pseudococcus* sp. (a kind of lice) and stain on leaves *(Hemileia vastarix),* as well as nematode *(Meloidoigyne and Pratylenchus)*. These pests and diseases can reduce production by 40-60%.
d. A weak institutional arrangement for coffee farmers
e. Lacking skill in post-production technology.
f. No added value for farmers as they export coffee in forms of green bean
g. Low domestic consumption of coffee (0.86 kg/capita/year)compared to Brazil and Columbia (3-4 kg/capita/year)
h. *Specialty coffee* has not been managed optimally
i. Lacking access to capital

Supported smallholder groups[viii]

There is not any information on any farmers groups supported by a company to develop coffee plantation. However there is some information on financing schemes to support the farmer groups as follows:

a. Scheme I : Cooperative of Community-managed Coffee Plantation and Industry (KIPKOMAS)
Communities established an Agribusiness Cooperative of Communities' Coffee, built a production center for communities coffee

product, including the processing unit and their supporting facilities and infrastructure. In this case, the communities may ask for help from third party (professional management service) based on the work agreement. The costs for all these activities were sourced from the communities themselves.

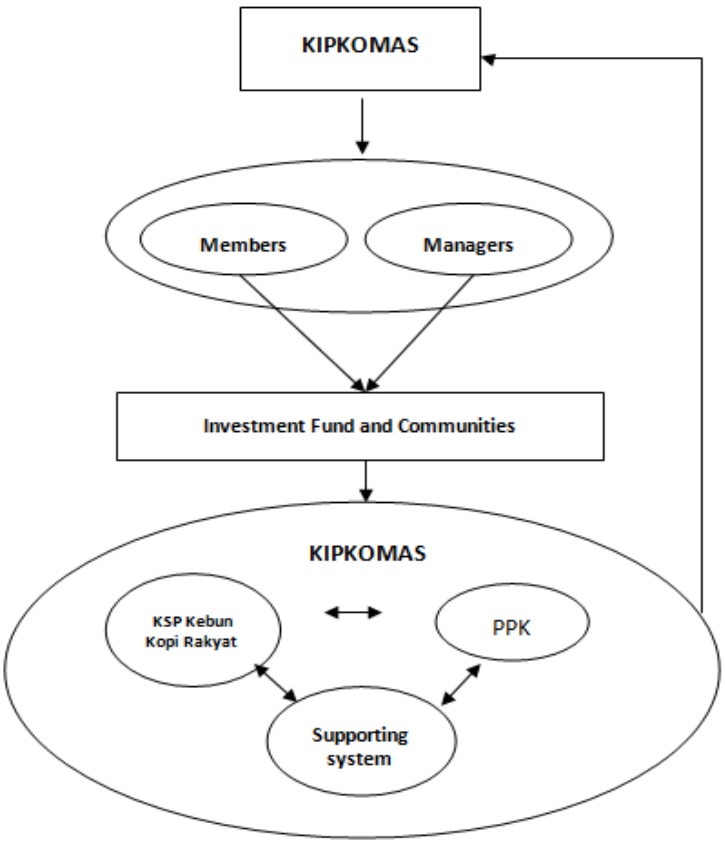


Figure 1. Organizational Structure under Scheme I

b. Scheme II : Joint Venture between Cooperative and Investor

This scheme is a modified NES as occured in oil palm, but this does not have institutional barrier. Since the beginning, the farmers group established KOBISKOP and made some joint venture with private sector to KIPKOMAS (Community Owned Coffee Processing Industrial Area). This scheme allows an equal share holding, depending on the agreement, but in most cases KOBISKOP (Community Coffee Agribusiness Cooperative)has higher shares than their private partners.

c. Scheme III : Joint Venture between investors and farmers

It is similar to the Scheme II, but the contribution of KOBISKOP is limited to “in-kind contribution” which is quantified to certain amount of money. For example, the land for developing the coffee plantation can be considered as the farmers’ shares, which can be 20%, 30% etc based on the agreement.

d. Scheme IV : Build Operating Transfer

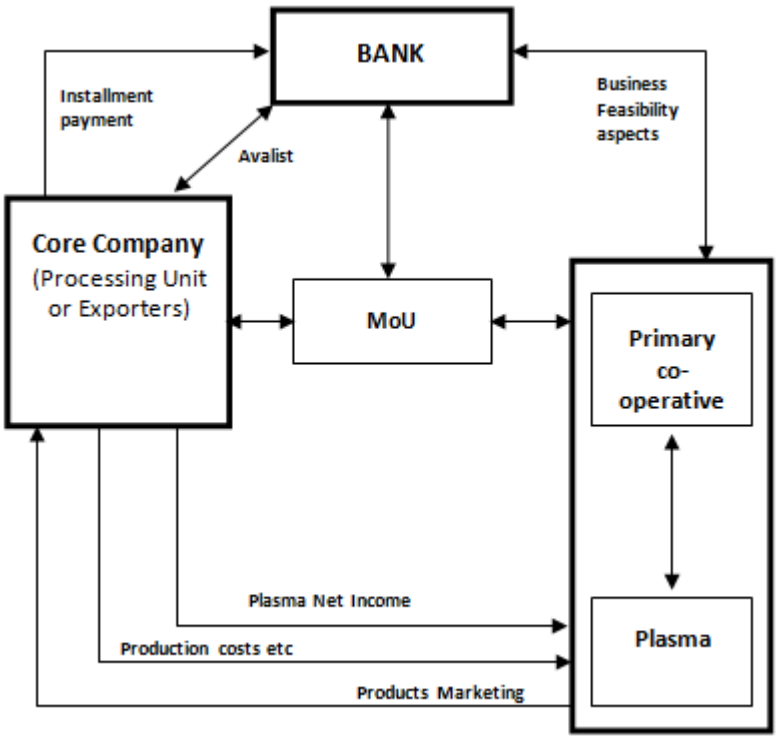
This scheme is open to any investors, including the government. In this scheme, the investors develop the coffee plantation for communities including the processing units and all facilities and infrastructures. All these activities are adjusted to the characteristics of coffee that the communities have. Once the KOBISKOP ready to run these activities, they will start repaying the costs to the investors.

e. Scheme V : Bank Tabungan Negara (BTN, a national bank)

This scheme adopts the approach of BTN, a national bank which provide loans for poor people to purchase houses. In this case, the government not only provides a credit to develop the coffee plantation but also support the financial arrangement to fund the KIPKOMAS development by developers. Developers here are limited to the any company with excellent competencies in running coffee industries.

In addition, there is another model of financing scheme initiated by Bank Indonesia (the central Bank of Indonesia) which is called Model of Feasibility of Integrated Partnership Project (**PKT**).

PKT is an integrated partnership project involving large scale companies (core) and small&medium enterprises (plasma) and banks to provide loans for the project. The objective of PKT is to increase the plasma feasibility, and help banks to disburse credit to small scale industries securely and efficiently. In this scheme, all parties have equal position legally. The core companies are obliged to do mentoring the plasma, provide technical assistance and production facilities as well as marketing the production. The model can be presented in the following figure.

	 Figure 2. Mechanism of PKT
Managed farmer groups[ix]	Most of coffee farmers have been the members of cooperatives that were established in their region. By joining cooperative, they expect no difficulty in selling or marketing their coffee products. For some progressive cooperatives, they also add some values to the product by processing the coffee bean.
Government support or policy?[x]	According to the Chairman of Coffee Exporter Association (AEKI), Irfan Anwar, there is no support from the government for the national coffee production, either in the form of giving seedlings, providing knowledge and technical assistance to farmers, incentives for export and so on. The farmers and exporters get their knowledge and experience on their own. The Minister of Trade promised that the government will give credits to farmers who commit to increase their production, but this promise has not been seen in the ground.
What are the most pressing issues for smallholders involved in producing the crop?[xi]	The most pressing issues: a. Awareness of environment has changed the consumers' preference to choose product not only based on quality but also the environment friendly technology. b. Application of ISO 9000, 14000 standards. c. Sustainable Coffee production and consumption. d. Awareness on health which does not allow the chemicals like Ochhratoxin and pesticide residuals in coffee products e. Agreement of the International Coffee Organization to not export coffee with low quality. The government support is highly needed for revitalizing land, seedlings, facilities and infrastructure, human resources, financing scheme,

	institutional arrangement for farmers and technology and downstreaming processes. Rejuvenation is another urgent issues as the current plantations are mostly over 25 years old, which has a very low productivity.

3. TEA

Production trend[xii]

Based on the data from the Indonesian tea association (ATI), the national production of tea reached 124,000 tonnes. This figure was going down in early 2012 but then it was estimated to increase to 136,400 tonnes. This was produced from the plantation with the size of 120,000 hectares, 60% of which belong to the communities and the rest was managed by the government and private sectors. Of the total size, 60-70% of it is located in West Java Province, especially in places like Cianjur, Sukabumi, Garut and Bandung. Below is the national tea production from 2003 to 2011.

Table 1. National tea production for the period of 2003-211

Year	Volume of Production (tonnes)
2003	169,819
2004	164,817
2005	156,273
2006	146,847
2007	137,248
2008	137,499
2009	136,481
2010	129,200
2011	119,651

Source: the Indonesian tea association

The decrease in volume production was resulted from the decreasing area of tea plantation in Indonesia. These lands have been converted to other commodities which were considered to be more profitable such as rubber, oil palm, vegetable and fruit. The total decrease in the area is presented in the following table.

Table 2. Decreasing tea plantation area for the period of 2003-2011

Year	Decreasing area (Ha)
2003	143,620
2004	142086
2005	138,659
2006	135,591
2007	133,733
2008	127,712
2009	125,384
2010	124,400
2011	123,500

Source: the Indonesian tea association

	Many farmers were not motivated to keep on working on tea plantation as this commodity was not profitable. The production cost was about IDR 1400 per kg while they sell to middle men with the price between IDR 1400-1800 per kg. In addition to the decreasing land, the other factor is that 70-80% of the plants have not been productive as they are aging. *(Andrew T. Supit – Director of Marketing and Promotion of the Indonesian tea Council).* Meanwhile, the Ministry of Agriculture has set up a target of 171,000 for production by 2012, which is difficult to reach as the productivity is very low. Ideally, one hectare can produce 8000-10,000 tonnes per year, while the current productivity in Indonesia is only 7000 tonnes maximum per hectare per year.
Independent smallholders[xiii]	There is limited information on the independent smallholders working on tea, although some media mentions it.
Supported smallholder groups[xiv]	There is limited information on the independent smallholders working on tea, although some media mentions it.
Managed farmer groups[xv]	The Indonesian Tea Board (DTI) has initiated the National Tea Rescue Movement by establishing a cluster cooperative. A cluster cooperative is an economic institution for every 300 hectares of tea plantation managed by a farmer group. They are the suppliers of tea to the state-owned tea company (PTPN) or large scale company. The company helps to organize the farmers and institutional arrangement as well as providing training on organization, administration, technical capacity, leadership, management and social interaction with the expectation that this cooperative can be a settled and bankable organization. The possible next step is that this cooperative can have shares in PT Indonesian Tea Incorporated (PT ITI), a limited company that the Indonesian government also has shares. In this scheme, the farmers are the staff/workers directly working for the company. Thus, they get salary from their employment and get the profit from their shares. Each tea farmer in the same field(stretch of land) or at least within the same village may join in one group or farmer group, then each of the farmer group will set a cooperative in which each members must follow the requirements that is created by the cooperatives statute and bylaw (AD/ART). Establishing such cooperative is almost the same with establishing cooperative in Indonesia in general. One of the examples is BinaTani Cooperatives, which is established around one year ago in Sukahurip Village, Cigedug Sub-district, Garut District. This cooperative has around 300 farmer members with total area of around 150 Hectares. To become members, the requirement is very easy that is the farmer members are working on one field or village, pay compulsory contributions as such practiced in most cooperative in general, also oblige to obey the cooperatives statute and bylaw (AD/ART). Currently, BinaTaniTeh cooperative receive assistance from foreign NGO that is Rainforest, which works with IDH and ETP (Ethical Tea Partnership). The assistance is provided to build farmer institution and provide training for the bigger objective that is certification. Private company that is invited to

	be partner is PT Kagepe Chakra, which is a big private tea company in West Java. The company promises in statement that if the farmer's tea plantation manages to get certification, the company will give better price (there is premium).
Government support or policy?[xvi]	The government has been giving attention and support to the community's tea plantation by providing some financial schemes for the farmers to do the tea business. The government also encourages them to organize themselves, not working on individual basis. The government does not provide direct financial incentive in form of cash for farmers, for example in form of incentive and so on, but the supports are provided in form of providing tea seeds to be provided to farmer group that is set up through Decree from the Head of District/Municipality or Head of Office that is in charge of plantation. Besides, the government also provides assistance and guidance for farmers to increase their production. In addition, the national government also has allocated some budget in 2012 for Community's Tea Plantation Rehabilitation program, which aimed at: 1. Improving production and productivity of tea plantation through application of best management practices in the cultivation. 2. Increasing the farmers' welfare which at the same time accelerating the poverty eradication. 3. Accelerating economy and regional development.
What are the most pressing issues for smallholders involved in producing the crop?[xvii]	The decreasing tea production in Indonesia is resulted from the decreasing land for the tea plantation. Some tea plantation area have been converted to other crops or property purposes. The conversion rate is about 3000 hectares per year, which happens in the tea production centers like in West Java and Central Java Provinces. The factors of land conversion are: 1. Capital issues A farmer usually has 0.5-3 hectares land. They cannot afford the production cost of the tea cultivation. Bank usually cannot provide loan to them because of collateral absence. 2. Low price Price of dry tea at the farmer level is between IDR 1500-1700/kg, even lower as IDR 1250/kg. During the harvest season, the price was only IDR 800/kg, while the production costs was IDR 1700/kg. This definitely does not bring any profit to farmers.

4. COCOA

Production trend[xviii]

Indonesia is the third biggest producer of cocoa after Ivory Coast and Ghana. The size of cocoa plantation at present is reaching 1.6 millions hectares, 93% of which belong to communities.

At present the national production is about 700,000 tonnes with the productivity of 800 kg/hectare. In theory, the cocoa productivity can reach 1.5 tonnes/hectare. Following is the table showing area, production and productivity of cocoa for the last five years (2007-2011).

Table 1. Area development of cocoa (2007-2011)*

Year	Area (Ha)			
	Communities	Government	Private sector	Total
2007	1,272,782	57,342	4,914	**1,379,280**
2008	1,326,784	50,584	4,784	**1,425,216**
2009	1,491,808	49,489	4,583	**1,587,136**
2010	1,558,421	48,932	4,362	**1,650,621**
2011*	1,585,153	48,932	4,316	**1,677,254**

Table 2. Cocoa Production Development (2007-2011)

Year	Production (tonnes)			
	Communities	Government	Private sector	Total
2007	671,370	34,643	33,992	**740,005**
2008	740,681	31,130	31,783	**803,593**
2009	741,981	34,604	32,998	**809,583**
2010	772,771	34,740	30,407	**837,918**
2011*	644,688	34,373	33,170	**712,231**

Table 3. Productivity development (2007-2011)

<table>
<tr><td></td><td>
<table>
<tr><th rowspan="2">Year</th><th colspan="4">Productivity (Tonnes/hectare)</th></tr>
<tr><th>Communities</th><th>Government</th><th>Private sector</th><th>Total</th></tr>
<tr><td>2007</td><td>796</td><td>787</td><td>874</td><td>801</td></tr>
<tr><td>2008</td><td>779</td><td>834</td><td>884</td><td>832</td></tr>
<tr><td>2009</td><td>811</td><td>941</td><td>994</td><td>944</td></tr>
<tr><td>2010</td><td>793</td><td>958</td><td>944</td><td>898</td></tr>
<tr><td>2011*</td><td>648</td><td>911</td><td>957</td><td>837</td></tr>
</table>
Source: Indonesian Plantation statistics
*) interim figure

The decrease in productivity is mostly caused by poor quality of seedlings used by farmers and low maintenance.</td></tr>
<tr><td>Independent smallholders</td><td>Almost all cocoa farmers are independent</td></tr>
<tr><td>Supported smallholder groups</td><td>No further information about the supported smallholders in this sector

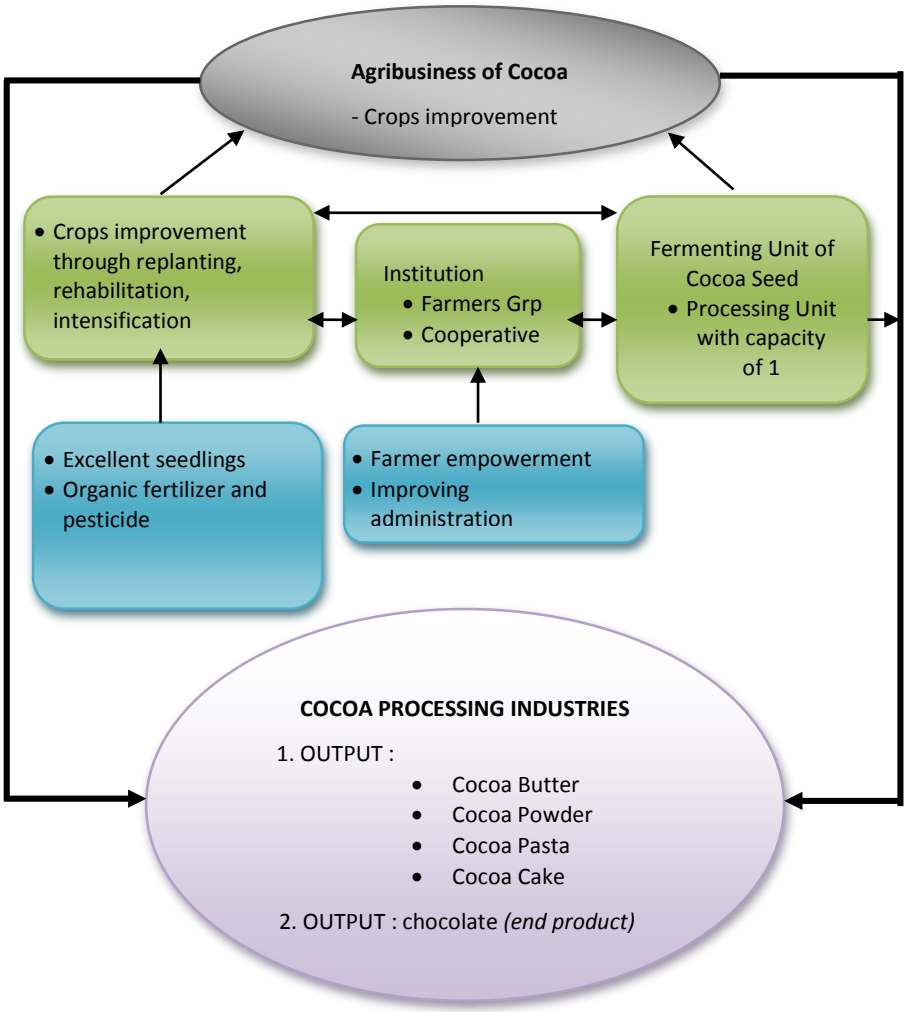
Around 90% of cacao plantation in Indonesia are managed by smallholder plantations, thus NES model as such in palm oil plantations are not found. However, currently a partnership has been developed between farmer group and local company, and cocoa industry, although has not worked very well. It is because some still conduct sale transaction through middle men.

For example, one company that has partnership with cocoa farmers is PT. BumiTangerangCoklatUtama (BT Cocoa), which provides incentives/premium price of IDR 3,000 to IDR 5,000 per kg for fermented cocoa. Besides PT BT Cocoa also provides counselling and guidance on how to do fermentation to produce cocoa beans with good qualities. The objective is so that cocoa farmers get additional value from selling their cocoa.</td></tr>
<tr><td>Managed farmer groups</td><td>No futher information</td></tr>
<tr><td>Government support or policy?[xix]</td><td>The government has a general policy on cocoa development to synergize all potential of cocoa in Indonesia through active participation of stakeholders for cocoa development. The technical policies include:

1. Cocoa commodities development
2. Human resource development
3. Institutional and partnership development
4. Increasing improvement
5. Management information system development</td></tr>
</table>

Strategies of development include: revitalisation of land, seedlings, facilities and infrastructure, human resources, farmer financing and institutional arrangement for farmers and technology as well as downstreaming industries.

DESIGN of COCOA AREA DEVELOPMENT



Some activities for improving production, productivity, product quality are as follow:

1. GERNAS Kakao (National Movement for Improving Production and Quality of Cocoa)
   It started in 2009 in production centers of cocoa by replanting 70,000 hectares, rehabilitation of 235,000 hectares and intensification in 145,000 hectares and other supporting activities.
2. Cocoa revitalization development
   This program is to accelerate smallholders' cocoa plantation through expansion, replating, rehabilitation through bank credit (KPEN-RP) with the government's subsidy to interests.
3. Integrating Cocoa and Livestock

	Similar to oil palm, this program is to make efficiency in both sectors: cocoa and livestock. The government provided 10-15 cows to every farmer group and one set of cocoa's waste processing unit.
What are the most pressing issues for smallholders involved in producing the crop?	The most pressing issues : 1. Some climate change which caused a decreasing productivity in 2010-2011. 2. Most of seeds used by the farmers are low quality, below the standard 3. Cocoa commodity has not had a good brand. There's no added value in the processed cocoa.

5. RUBBER

Production trend[xx]

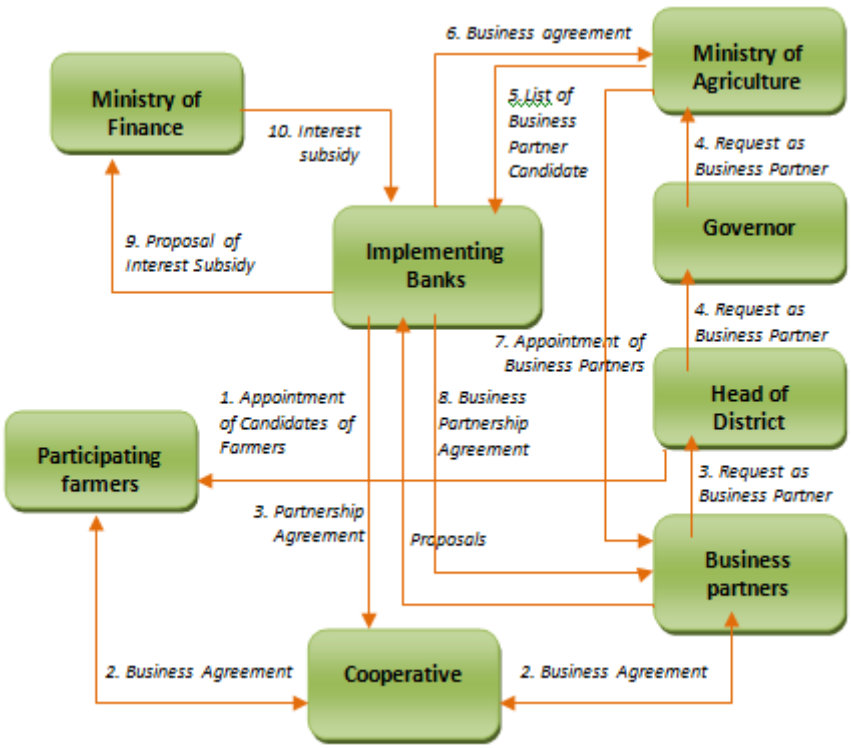
The total size of rubber plantation reached 3.4 millions hectares in 2011. Of this, 85% is managed by smallholders, while the rest is by government and private sectors. The production is also gradually increasing from 2,440,347 tonnes in 2009 to 2,990,184 tonnes in 2011. This figure keeps going up to 3,040,376 tonnes in 2012 and it is estimated that the production in 2013 will be about 3,100,000 tonnes.

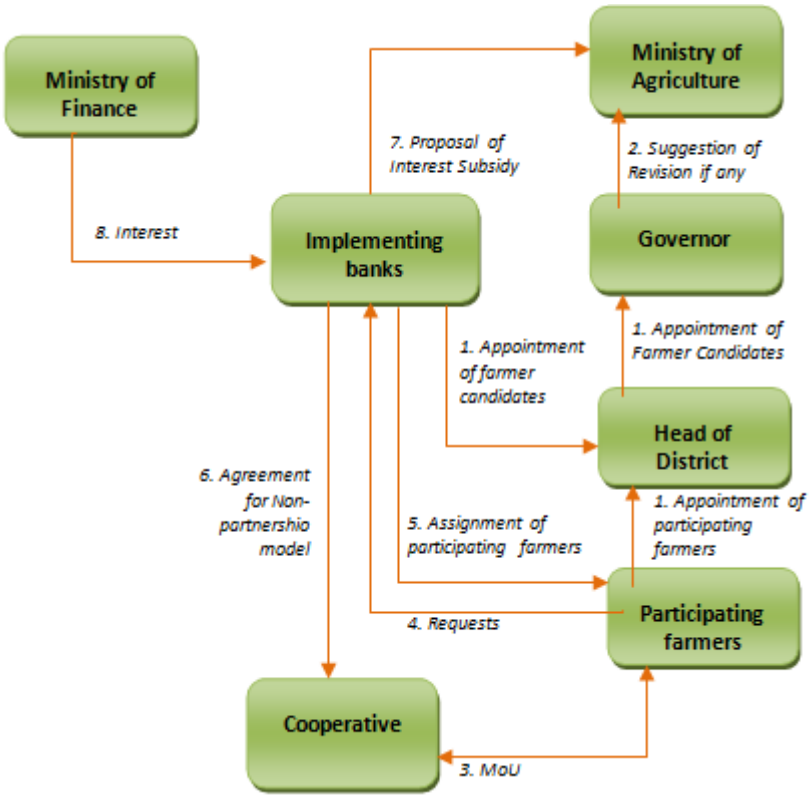
Size of Rubber plantation based on the ownership

Year	Size (in 000 Ha)			
	Community	Government	Private Sector	Total
2005	2,767	237	276	**3,279**
2006	2,833	238	275	**3,346**
2007	2,899	238	276	**3,414**
2008	2,910	238	276	**3,424**
2009	2,912	239	284	**3,435**
2010	2,922	240	284	**3,445**
2011*	2,932	240	284	**3,456**

Size, Production and Productivity of Rubber in Indonesia

Year	Size (Ha)	Production (Ton)	Productivity (Kg/Ha)
2005	3,279,391	2,270,891	862
2006	3,346,427	2,637,231	967
2007	3,413,717	2,755,172	993
2008	3,424,717	2,754,356	994
2009	3,435,270	2,440,347	901
2010	3,445,415	2,734,854	986
2011*	3,456,527	3,029,427	1.085

	2012** 3,467,000 2,900,497 1.092 Source : Directorate General of Plantation *) interim figure **) estimated figure
Independent smallholders	Yes, but there is not any information on them
Supported smallholder groups	No
Managed farmer groups	No
Government support or policy?[xxi]	The government support to improve the national rubber production can be seen in the following policy: 1. Plantation revitalization through vegetable-based energy development credit (KPEN-RP). This is to accelerate community plantation development through replanting and rehabilitation of plantation which then improve the production, productivity, quality and welfare of farmers especially for export commodities (palm oil, rubber and cocoa) through bank investment with the interest subsidy from the government. This policy involves large scale plantation company as a partner of the pantation development, processing and marketing. **Flow chart of Plantation Revitalization Implementation** 1. PARTNERSHIP MODEL 

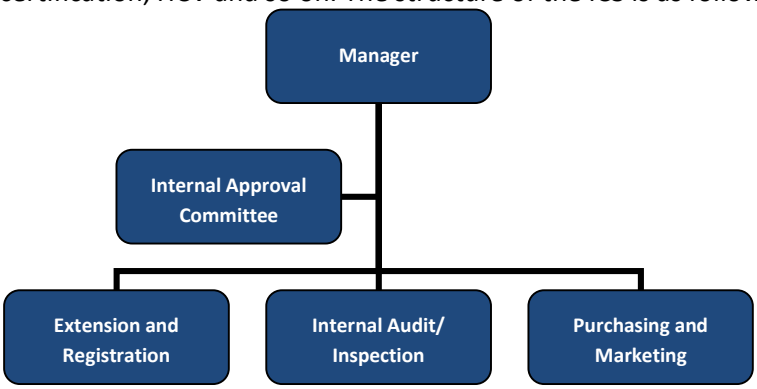
	2. NON-PARTNERSHIP MODEL  2. Replanting and expansion of community rubber plantation through specific programs in the national or regional budget 3. National movement for rubber plantation (2013-2015) by replanting and providing excellent seedlings, post-harvest technology and farmers empowerment.
What are the most pressing issues for smallholders involved in producing the crop?[xxii]	The most pressing issues are: 1. Product marketing which is currently dominated by middlemen so that farmers cannot decide the price 2. Productivity in the community rubber plantation is lower (900kg/ha/year) than that of company (1300kg/ha/year) 3. Farmers (communities) are not ready with the replanting program as they are afraid of losing income before the new trees can produce 4. Low quality of rubber 5. Limited access to capital 6. Production facilities are not sufficient for accommodating large-scale production 7. Deadly disease of rubber trees.

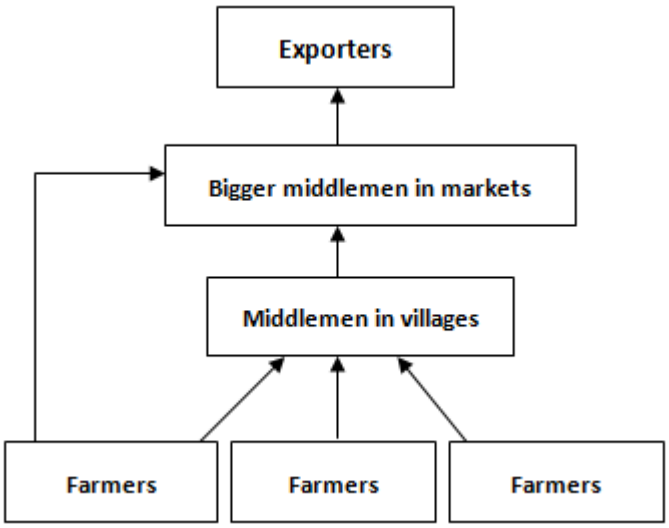
This section gives an overview of existing successful models found across the commodities already discussed. The table shows the current barriers faced in commodity productionand how the models address and provide solutions for them.

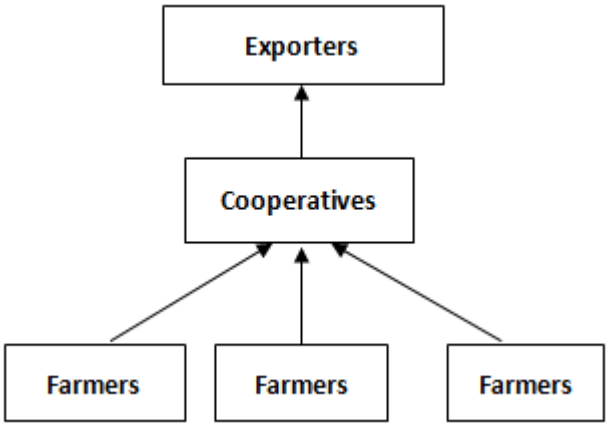
Barriers	Addressed in the model
a) Poor production technologies and agronomic practices and therefore low yields	Yes, most of smallholders in all commodities have low productivity because of inexistence of best management practices. In addition, the old plantation also contributed to the low productivity. The solutions provided are to provide training on best management practices to smallholders and replanting to replace old plants. Training is usually provided by a company that has partnership with smallholders. This training is usually provided directly by trainer from the company or with instructor supports from local agriculture office, or from province and central office. The financing usually comes from the company as part of the partnership and CSR, might also come from government or NGO. Smallholders rarely pay for the training cost. The smallholder commitment is that they have to implement training results that are provided, thus they can increase farmers productivity and income. Moreover, they usually are obliged to sell their harvest to the company which provides the training (although some companies do not require that). The benefit for the company in partnership is that they can have better quality and maintain the stock from smallholders they partner with.
b) Limited access to training	Yes, it is discussed in all commodities. Lack of extension officers from the government to work together with the smallholders is one factor. Another factor is that the farmers are not really aware of the importance of training that may have been organized for them by not participating in it. Their absence in such training is because the schedule of training which is not right, the distance of the venue which is not easily accessible.
c) Lack of awareness of environmental benefits/deforestation issues	No, it is not discussed specifically in the commodities but it is common that the farmers like using fire to clear their land, because it is cheaper than renting a heavy equipment to do it mechanically. For increasing the productivity, farmers like clearing new land rather than maximizing their existing land. They are reluctant to do replanting.
d) Limited or no access to loans/finance	Yes, it is addressed in the commodities. Solutions provided is that the government through collaboration with banks provide soft loan to farmers (Community Business Credit). In this soft loan scheme, the government guarantees 70% of the credit while the rest is managed by the banks. There are 6 banks that have been approved to channel this credit, namely Mandiri, BRI, BNI, Bukopin, BTN, and Bank SyariahMandiri. However due to too much paper work to get this credit, the farmers are difficult to access this credit. The soft loan called as KUR (Kredit Usaha Rakyat or micro credit) is a form of credit to pay productive business within the segments of micro, small, medium, and cooperative that are feasible but not bankable for working capital and/or investment credit through direct financing pattern both direct and linkage that is guaranteed by Credit Guarantee Agency with criteria as follows:

	- Not receiving other credit from bank/program credit from the government - UMKMK (Micro, Small, Medium Enterprises and Cooperative) that receives consumptive credit from banking: House Ownership Credit, Motor Vehicle Credit, Credit Card and other Consumptive Credit are allowed to receive KUR Credit Features: - Credit Limit : 1. Direct KUR (individual) maximum amount of IDR 500million. 2. Indirect KUR ▪ *Excuting Pattern* Maximum IDR 2 billion per linkage agency and maximum IDR 100 million per end user ▪ *Channeling Pattern* Referring to the nominative list of the end user with credit limit per end user up to IDR 500 million - Types of credit: investment and/or working capital - Credit period: 1. KMK is for maximum 3 years and can be extended to 6 years 2. KI is for maximum 5 years and can be extended to 10 years 3. KI for hard plant estates maximum 13 years and cannot be extended Requirements : - Legal documents of the applicants, for example: ID card, Family card - Legal documents of the business, for example: Tax number (NPWP), business license (SIUP), business domicile certificate (SKDU) - Copy of current/saving account for the past 6 months - Collateral/guarantee The financing for the farmer is usually from cooperative or farmer group. Because the cooperative or farmer group will deduct the income from selling the harvests from the farmer in concerned, and use the money as the credit installments in bank. Moreover, the cooperative or farmer group generally receives fee/commission from bank or increase the interest bank for a little bit as the profit for the cooperative or the farmer group. However, some smallholders could also get loan from bank without going through cooperative or farmer group because they have been bankable and capable in providing all the requirements that is applied by bank that channels KUR. Specifically for smallholders, the main issue is usually collateral, because they rarely certify their plantation land. Moreover, usually bank also require cooperation agreement/purchase agreement with company, as well as documents that are relevant with the sale of the smallholders' plantation products to the company. For commodities other than palm oil, this is of course difficult to fulfil because non-palm oil smallholders sell their crops to middlemen.

e) Access to market information and prices[xxiii]	Yes, it is addressed in all commodities. Most of them are still dealing with the middlemen for marketing their products. At some point, the farmers are not in the position to decide the price.
Incentives	
• Does the model provide specific incentives for smallholders to produce sustainably? For example, incentives not to deforest, premium price for certified products, access to certain benefits/funding etc.[xxiv]	**Palm Oil** The model itself does not provide the incentives for the smallholders, but if they join a certification scheme such as RSPO or ISCC they will get certain incentives in the form of premium price for the FFB that they sell to companies. **Coffee** Similarly with the palm oil, the model in coffee has not provided any incentives. However, the farmers of Gayo coffee (Arabica coffee developed in Gayo, Aceh) may get a "social premium fund" from a fair trade scheme. This premium is given if the target set up by world trade for the Gayo coffee is reached. Gayo coffee has been awarded with the Black Apron Exclusive (BAE), an international recognition for the quality. Gayo coffee is of Arabica type that has already gained Geographic Indication certification. Almost all Gayo Coffee is grown by farmers in Central Aceh district, with the total involvement of farmers to 33,474 hh of farmers in an area of 20,578 Ha. According to the Head of Plantation Development of Plantation and Forestry Office of Central Aceh District, it has been known that 100% of Arabica coffee production produced comes from farmer. Companies that are involved in Gayo Coffee commodities are exporters. They provide assistance for farmers to maintain the quality of their products in form of dry coffee beans. A Cooperative that has been more advance in processing coffee beans in Central Aceh is Babburrayan Cooperative. Aris, the Manager of the Cooperative, mentioned that the coffee beans produced almost 100% are exported to the US through their own network. The coffee beans produced have fulfilled the requirements of Organic Coffee Product Certification that is required by importer from US (Volcoffee). Moreover one of the most famous trans-national industries such as Starbuck Coffee also bought coffee produced by Babburrayan cooperative through specific broker. **Tea** Some certification schemes has been reported to increase the premium price for the tea produced in sustainable way. **Cocoa** No incentives are identified in this commodity. **Rubber** No incentives are identified in this commodity.

Commodities	Models that can help improve smallholder
Oil Palm[xxv]	Riau province has 2.1 millions hectares of oil palm plantation. 1.1 millions hectares are owned by smallholders, 76% of which is independent smallholders. As most of farmers or smallholders do not have awareness on sustainable palm oil, they can develop oil palm plantation in any forests, including in a national park. TesoNila National Park has an area of 83,000 hectares, however 30,000 hectares have been encroached by smallholders which then converted to oil palm plantation. WWF Indonesia has concern that this encroachment will expand to other parts of the national park. Without an intervention, there may no longer be a national park which hosts an abundance of flora and fauna of tropical forests in Riau. Supported by the Ministry of Agriculture, Local government of Riau, RSPO, Carrefour Foundation International and PT IntiIndosawitSubur, WWF Indonesia facilitated the establishment of Independent Smallholders Association, Amanah, in 2011. There were 349 farmers having 763 hectares near the TesoNilo National Park joining this Amanah Association. In this model, PT IntiIndosawitSubur (PT IIS), the oil palm company, plays a role of mentor for the independent smallholders. This is in line with their Corporate Social Responsibility (CSR strategy) to improve the smallholders' welfare through improving their agricultural practices and others. In addition to mentoring, the PT IIS also provided training for some members of the association to be supervisor and their assistants for the smallholders' plantation, fertilizers and other agricultural facilities. WWF Indonesia also provided training on internal control system (which was supported by BioCert), RSPO certification, HCV and so on. The structure of the ICS is as follows:  The Amanah Association has a MoU with the company that they will sell the FFB to the company, which will provide premium price for the certified FFB. According to WWF Indonesia, these are steps that they took in organizing these independent smallholders to get RSPO certification: 1. Awareness raising and training to farmers who are interested in sustainable palm oil 2. Developing a structure of group management and the responsibilities 3. Developing an operational guidance for internal control (forms, risk analysis, supply chain and others) 4. Providing specific trainings for the group managers (manager, internal auditor, approval committee, marketing and purchasing) 5. Registration of farmers and gap assessment 6. Internal approval → formal members who should sign contracts

	7. Registration to CB for RSPO certification 8. Certification process by CB 9. Sales and purchase of RSPO certified FFB 10. Annual internal audit The members of the Association also worked hard to implement the RSPO principles in the Association. During the assessment by BSI, the RSPO-approved CB, managers of the Association showed that the members have equal knowledge on RSPO. Finally they got RSPO Certificate in July 2013.
Coffee[xxvi]	Malang is one of coffee production center in East Java. Some communities were encouraged to engage in partnership with the coffee exporters to increase their profit by cutting off some chains in marketing. So far they have been involved in the traditional marketing, whose actors were farmers as producers, middlemen in their village and middlemen in market and exporters. See the figure below.  In this market chain, farmers sell the fresh bean to the middlemen. Most of exporters cannot accept the quality of the fresh bean from farmers and they are reluctant to deal with the individual farmers. While in the partnership channel, the actors of marketing are farmers, cooperative and exporters. This partnership is facilitated by the Agriculture Service Office of East Java, Research Center for Coffee and Cocoa in Jember and the association of village cooperative in East Java. In this channel, the farmers also sell the fresh coffee bean to the cooperative which then further process to dry them before they send to the exporter.

	 This partnership model can improve the coffee quality by implementing best practices in cultivation and harvesting. In addition, the farmers also get certainty that they can sell the beans with the price as agreed in the concensus between them and exporters. The partnership marketing seems to be successful because the exporters's demand is increasing. For meeting the demand, the farmers expanding the production area by renting the land or sharing profits with other farmers in their neighborhood. In this case, the government plays an important role in facilitating the partnership by guaranteeing the infrastructure needed by the partnership, providing soft loan to farmers, not applying levies or other kinds of tax and price monitoring.
Tea[xxvii]	PTPN VIII (State-owned plantation company) has been working together with the farmers groups in Cilawusubdistrict, Garut District in West Java Province to develop tea plantation which was certified by UTZ. The farmers also get premium price for this certified tea. Based on information from Business Watch Indonesia (BWI), which involves in tea certification in PTPN VIII, PTPN VIII supports funding and provides training for farmer groups that has been certified. Moreover, the funding is also supported by Solidaridad (International NGO) in cooperation with BWI (Indonesian NGO that concerns with tea farmer). The Indonesian Tea Board (DTI) set up a target to certify all community tea plantation in the next 8 years to improve added value and competitiveness of the Indonesian tea. The chairman of the council, RahmadGunadi mentioned that the tea certification has been a demand for the world tea consumers to ensure the security and sustainability of the tea production.
Cocoa[xxviii]	No model is identified yet.
Rubber[xxix]	Marketing of processsed latex using the partnership has been applied since 1988 with the issuance of the decree from the Minister of Agriculture, which

	was then revised in 1990 and 1991 on marketing relationship between the plasma members and core company in the rubber commodities. In principal the plasma system for some other commodities are almost similiar to the plasma system in palm oil, where one of the requirements is that smallholders from plasma are required to sell their crops to the core companies, and core companies are obliged to accept/buy the crops from smallholders.Moreover, the core company is obliged to provide continuous guidance for their plasma to increase their plantation production. A partnership was established between PT REMCO (large scale company for rubber) and the cooperative of farmers group GeloraTani UPP Sekayu, South Sumatera. With the formal and direct relationship with the core company, the profits for farmers is guaranteed.

Some people have been interviewed :

1. Dany Rahadian – WWF Indonesia
2. Mansuetus Darto – SPKS Indonesia
3. Putut Soedarmadji – Plasma Director of Oil Palm Plantation in West Kalimantan
4. Theresia – BWI/Solidaridad
5. Ruslan – Tea Farmer in Garut, West Java
6. Tangkas Panjaitan – Ministry of Agriculture

REFERENCES :

[i] http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&cad=rja&ved=0CDoQFjAC&url=http%3A%2F%2Fpusdatin.setjen.deptan.go.id%2Ftinymcpuk%2Fgambar%2Ffile%2FA1_Jan_Klp_Sawit.pdf&ei=KXcMUq6YEouyrAeUvoDoBw&usg=AFQjCNFFJmGbOuOm6KtC2F3RlU-6qlIFvQ&sig2=1lHJICn29zBDAzTRoumSLA&bvm=bv.50768961,d.bmk
http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=10&cad=rja&ved=0CGsQFjAJ&url=http%3A%2F%2Fpusdatin.deptan.go.id%2Fadmin%2Finfo%2Foutlook_komoditas_bun.pdf&ei=ToANUqC3D8WHrgfqnYGoAw&usg=AFQjCNEvwVekk6PRLMgyp4Uv022YMDfCrg&sig2=abV1mSwkud-4N_a0eecD3g&bvm=bv.50768961,d.bmk

[ii] http://www.neraca.co.id/harian/article/28236/Petani.Sawit.Swadaya.Bakal.Meningkat.70
http://www.mongabay.co.id/2013/08/02/petani-sawit-swadaya-amanah-terima-sertifikat-rspo-pertama-di-indonesia/
http://www.bumn.go.id/ptpn4/publikasi/berita/indonesia-70-perkebunan-asing-tanpa-inti-plasma-rakyat/
http://www.kaltimpost.co.id/berita/detail/24741/indahnya-plasma-hanya-dalam-mimpi-petani.html
http://www.agrina-online.com/redesign2.php?rid=20&aid=2651
http://riaupos.co/opini.php?act=full&id=1876&kat=1#.Ug2RCZGs3t0
http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&ved=0CCgQFjAA&url=http%3A%2F%2Fwww.rspo.org%2Ffile%2FSerikat%2520Petani%2520Kelapa%2520Sawit%2520%28SPKS%29.pdf&ei=1KINUpyhDIizrge-9IG4BQ&usg=AFQjCNGvTDa5nz5UAu_692Wi_w_ggIcy-g&sig2=6thm1MeZPGbrFZK0H0yPIw&bvm=bv.50768961,d.bmk

[iii] http://www.bumn.go.id/ptpn4/publikasi/berita/indonesia-70-perkebunan-asing-tanpa-inti-plasma-rakyat/

[iv] http://ditjenbun.deptan.go.id/berita-292-.html
http://adi-syafruwardi.blogspot.com/
http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=4&cad=rja&ved=0CD8QFjAD&url=http%3A%2F%2Fditjenbun.deptan.go.id%2Ftinymcpuk%2Fgambar%2Ffile%2FPedoman%2520Teknis%2520Revitalisasi%2520Perkebunan.pdf&ei=su0NUt2JCsSzrAfOj4GwDQ&usg=AFQjCNH6IDYuLXV7MI0PyCjSKV9fe6pU-g&sig2=yFFvE5cFkgJd-CJrj4yLTQ&bvm=bv.50768961,d.bmk
http://etd.ugm.ac.id/index.php?mod=penelitian_detail&sub=PenelitianDetail&act=view&typ=html&buku_id=51225&obyek_id=4
http://setkab.go.id/artikel-6434-integrasi-peternakan-sapi-dan-perkebunan-kelapa-sawit-dalam-mendukung-program-swasembada-daging-sapi-psds-2014.html
http://utusanriau.com/news/detail/6745/2012/05/27/2012,-kelompok-tani-rokan-hulu-terima-bantuan-1.421-ekor-sapi#.Ug3xVZGs3t0
http://riauaksi.com/adsriau-3492-petani-riau-dapat-dongkrak-pendapatan-dengan-siska.html
http://dianfamily.wordpress.com/2013/05/14/program-siska-utk-psdsk-2014/
http://pancanaka.org/index.php?option=com_content&view=article&id=447:revisi-permentan-beri-20-lahan-untuk-rakyat&catid=85&Itemid=222
http://mediaperkebunan.net/index.php?option=com_content&view=article&id=247:mentan-akan-revisi-permentan-no-262007&catid=2:komoditi&Itemid=26

http://www.mediaperkebunan.net/index.php?option=com_content&view=article&id=248:filosofis-permentan-no-26&catid=9:publikasi&Itemid=5

[v]http://www.mediaperkebunan.net/index.php?option=com_content&view=article&id=117%3Asertifikasi-masalah-utama-petani-kelapa-sawit-&catid=3%3Abudidaya&Itemid=3
http://www.bisnis.com/sertifikat-ispo-untuk-petani-sawit-segera-terbit
http://www.cargill.co.id/id/news/NA3037054.jsp
http://riaubisnis.com/index.php/agriculture-mainmenu-109/pertanian-news/4916-petani-plasma-riau-raih-sertifikat-rspo-
http://www.mongabay.co.id/2013/08/02/petani-sawit-swadaya-amanah-terima-sertifikat-rspo-pertama-di-indonesia/
http://www.citizenjurnalism.com/world-news/business/apkasindo-berharap-program-sertifikasi-lahan-sawit-petani-berjalan/
http://www.indonesiafinancetoday.com/read/39584/18-Juta-Hektare-Kebun-Sawit-Butuh-Peremajaan
http://ditjenbun.deptan.go.id/tanhun/berita-164-peremajaan-perkebunan-rakyat--kelapa-sawit-masalah-dan-peluang.html
http://riauinfosawit.blogspot.com/2011/03/petani-tidak-siap-untuk-replanting.html
http://www.gimni.org/page/2/

[vi]http://ditjenbun.deptan.go.id/pascapanen/berita-203-kopi-berkelanjutan-.html
http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=39&cad=rja&ved=0CGUQFjAIOB4&url=http%3A%2F%2Fwww.satgasreddplus.org%2Fdownload%2FNurnowo_Paridjo_Kebijakan_Perkebunan_dalam_pengelolaan_perkebunan_yang_Lestari_Berkontribusi_pada_REDD%2B.pdf&ei=2TYTUqaHKYPtrQfj1oHoCg&usg=AFQjCNHPhLhuaqZZZPUCUyZSY6e0PF3CUQ&sig2=QJL8f_vfnUJnfMQJK5bfuw&bvm=bv.50952593,d.bmk
http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&cad=rja&ved=0CDwQFjAC&url=http%3A%2F%2Fjurnal.fp.unila.ac.id%2Findex.php%2FJIA%2Farticle%2Fdownload%2F126%2F130&ei=INISUvnBKMLKrAejq4GwCw&usg=AFQjCNEkT_ZJCg6m_yAob_rizEFLN21ODw&sig2=i7o1QK8cZyF33iDTRfs3TQ&bvm=bv.50952593,d.bmk
http://pphp.deptan.go.id/disp_informasi/1/1/0/1397/peluang_besar_industri_kopi_indonesia.html
http://finance.detik.com/read/2013/06/25/114040/2283360/1036/indonesia-masih-jadi-produsen-kopi-terbesar-no3-di-dunia
http://www.metrotvnews.com/metronews/read/2013/06/27/2/164269/Produksi-Kopi-Indonesia-Berpotensi-Geser-Vietnam
http://ditjenbun.deptan.go.id/pascapanen/berita-161-perbaikan-mutu-kopi-indonesia.html
http://swa.co.id/headline/aeki-tidak-ada-dukungan-nyata-dari-pemerintah
http://ditjenbun.deptan.go.id/tanregar/berita-193-kebijakan-pengembangan-kopi-nasional.html
http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&ved=0CCoQFjAA&url=http%3A%2F%2Fwww.deptan.go.id%2Finfoeksekutif%2Fbun%2FBUN-asem2012%2FProduksi-Kopi.pdf&ei=W-sRUv75OoSErQfDlICgAw&usg=AFQjCNFVytVljoStXhFOaX1bDoZzxewXrw&sig2=cJ4kOVGicnj4KbT02MttdQ&bvm=bv.50768961,d.bmk
http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=26&cad=rja&ved=0CFsQFjAFOBQ&url=http%3A%2F%2Fmarno.lecture.ub.ac.id%2Ffiles%2F2012%2F01%2FMODEL-PENGEMBANGAN-KAWASAN-KOPI-RAKYAT.docx&ei=FO0RUqjGF4TrrQehioCIDQ&usg=AFQjCNGvQ3ufGhv2EgDxx_vvvMUoILGp2A&sig2=d-9-dxmtl_XDnkYDVxfjhw&bvm=bv.50768961,d.bmk
http://www.mediaperkebunan.net/index.php?option=com_content&view=article&id=274:kopi-ngada-asal-ntt&catid=6:daerah&Itemid=24

[vii] http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=39&cad=rja&ved=0CGUQFjAIOB4&url=http%3A%2F%2Fwww.satgasreddplus.org%2Fdownload%2FNurnowo_Paridjo_Kebijakan_Perkebunan_dalam_pengelolaan_perkebunan_yang_Lestari_Berkontribusi_pada_REDD%2B.pdf&ei=2TYTUqaHKYPtrQfj1oHoCg&usg=AFQjCNHPhLhuaqZZZPUCUyZSY6e0PF3CUQ&sig2=QJL8f_vfnUJnfMQJK5bfuw&bvm=bv.50952593,d.bmk
http://pphp.deptan.go.id/disp_informasi/1/1/0/1397/peluang_besar_industri_kopi_indonesia.html
http://swa.co.id/headline/aeki-tidak-ada-dukungan-nyata-dari-pemerintah

[viii] http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=16&cad=rja&ved=0CE8QFjAFOAo&url=http%3A%2F%2Fmarno.lecture.ub.ac.id%2Ffiles%2F2012%2F01%2Fmodel-KIPKOMAS.doc&ei=_SIUUtShBMbXrQeDhYHACQ&usg=AFQjCNHcdnfJkH8Wfp3s_UzZk0q9oEPuXg&sig2=LBz9a5a1-KsDJj4a3ZKNaQ&bvm=bv.50952593,d.bmk
http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=13&cad=rja&ved=0CDcQFjACOAo&url=http%3A%2F%2Fwww.bi.go.id%2FNR%2Frdonlyres%2F20B99895-8181-4992-94E7-765720CDF9E2%2F15831%2FPerkebunanKopiArabika.pdf&ei=9-MRUqP_Hoe3rAeBhYDIBg&usg=AFQjCNGHRkLe5YuUxgwmYmAJV_20e0PKbg&sig2=JIossLS38YX31vqwPcNwpQ&bvm=bv.50768961,d.bmk

[ix] http://surabaya.tribunnews.com/2013/03/19/comdev-unej-mengubah-pola-pikir-petani-kopi

[x] http://swa.co.id/headline/aeki-tidak-ada-dukungan-nyata-dari-pemerintah
http://www.okefood.com/read/2013/06/27/299/828312/dulu-belajar-dari-indonesia-kini-kopi-vietnam-lebih-unggul
http://koran-jakarta.com/index.php/detail/view01/115276

[xi] http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=39&cad=rja&ved=0CGUQFjAIOB4&url=http%3A%2F%2Fwww.satgasreddplus.org%2Fdownload%2FNurnowo_Paridjo_Kebijakan_Perkebunan_dalam_pengelolaan_perkebunan_yang_Lestari_Berkontribusi_pada_REDD%2B.pdf&ei=2TYTUqaHKYPtrQfj1oHoCg&usg=AFQjCNHPhLhuaqZZZPUCUyZSY6e0PF3CUQ&sig2=QJL8f_vfnUJnfMQJK5bfuw&bvm=bv.50952593,d.bmk
http://perkebunan.litbang.deptan.go.id/?p=5026

[xii] http://industri.kontan.co.id/news/harga-teh-anjlok-petani-beralih-tanam-komoditi-lain
http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=8&ved=0CGIQFjAH&url=http%3A%2F%2Frepository.ipb.ac.id%2Fbitstream%2Fhandle%2F123456789%2F57077%2FBAB%2520I%2520Pendahuluan.pdf%3Fsequence%3D1&ei=GpIVUsbVEsXUrQfCloH4BA&usg=AFQjCNFY50ZuI-QcYK87Cn14nj3bhInoRA&sig2=ASsTdbMxLblwMwipdlCOZA&bvm=bv.51156542,d.bmk&cad=rja
http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=6&cad=rja&ved=0CFQQFjAF&url=http%3A%2F%2Fwww.deptan.go.id%2Finfoeksekutif%2Fbun%2Feis-bun2011%2FProduksi%2520teh.pdf&ei=GpIVUsbVEsXUrQfCloH4BA&usg=AFQjCNE_NbDGY3PK4blnmevToOTnlSvXqA&sig2=AW_aALxrFKNXgVt2L7tOQg&bvm=bv.51156542,d.bmk

[xiii] http://www.bumn.go.id/ptpn8/publikasi/petani-teh-indonesia-bakal-punya-perusahaan-mandiri/

[xiv] http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=19&cad=rja&ved=0CGgQFjAIOAo&url=http%3A%2F%2Frepository.ipb.ac.id%2Fbitstream%2Fhandle%2F123456789%2F36957%2FA85RDH.pdf&ei=bw0XUvTIHMTWrQfdxoHQBQ&usg=AFQjCNFwL6UQeQ83Z1vftSsx9WJq7sTALA&sig2=Ga_TG2f-SWWbl3hU7A3K_w&bvm=bv.51156542,d.bmk

[xv] http://ditjenbun.deptan.go.id/tanregar/berita-176-gerakan-penyelamatan-agribisnis-teh-nasional-gpatn.html
http://www.pikiran-rakyat.com/node/219443

[xvi] http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&cad=rja&ved=0CDEQFjAB&url=http%3A%2F%2Fwww.deptan.go.id%2Fpedum2012%2FDITJEN%2520PERKEBUNAN%2F1.5.%2520pedum-budidaya-perlutan-tehrakyat.pdf&ei=i7EaUteCB8u-rgedooDYCw&usg=AFQjCNHLpDSDWUemNO-he9BsMnhIEgMkWQ&sig2=FKkMNLaoMYvCHRzOdG50Bw&bvm=bv.51156542,d.bmk
http://www.bisnis-jabar.com/index.php/berita/lahan-perkebunan-teh-di-jabar-berkurang-3-000-hatahun

[xvii] http://industri.kontan.co.id/news/berubah-fungsi-3.000-hektare-lahan-teh-rakyat-berkurang-tiap-tahunnya-1
http://mediaperkebunan.net/index.php?option=com_content&view=article&id=303:membendung-derasnya-teh-impor&catid=2:komoditi&Itemid=26

[xviii] http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&ved=0CCoQFjAA&url=http%3A%2F%2Fwww.deptan.go.id%2Finfoeksekutif%2Fbun%2FBUN-asem2012%2FProduksi-Kakao.pdf&ei=vtYaUqHnBojxrQe9nYGgCg&usg=AFQjCNFvQahChnxVo-I__nG7C2kyADJdxw&sig2=g0cEc5-SyO4KmoM9bTlRVw&bvm=bv.51156542,d.bmk
http://coklatrocklate.com/2014-indonesia-targetkan-jadi-penghasil-kakao-terbesar-di-dunia/

[xix] http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&cad=rja&ved=0CDEQFjAB&url=http%3A%2F%2Fwww.deptan.go.id%2Fpedum2012%2FDITJEN%2520PERKEBUNAN%2F2.1.%2520pedoman-teknis-gernas-kakao.pdf&ei=T_YaUtj0IsG3rgfpnYHIBg&usg=AFQjCNE-MgDwpVWP4bHLeBZTdVNXEi_Lng&sig2=mr6dyCYE9sjgrBMSlhE0Dw&bvm=bv.51156542,d.bmk
http://ditjenbun.deptan.go.id/pascapanen/berita-150-produktivitas-dan-mutu-biji-kakao.html

[xx] http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&cad=rja&ved=0CDgQFjAC&url=http%3A%2F%2Fwww.deptan.go.id%2Finfoeksekutif%2Fbun%2FBUN-asem2012%2FAreal-Karet.pdf&ei=ASQbUs_9OoSRrQeb8oHADQ&usg=AFQjCNFylB_q6AYkJeEGzt-bdvr05ZY2EA&sig2=7YSt1WWuQUJdRLkyV5RUng&bvm=bv.51156542,d.bmk
http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=6&cad=rja&ved=0CFgQFjAF&url=http%3A%2F%2Frepository.usu.ac.id%2Fbitstream%2F123456789%2F30327%2F5%2FChapter%2520I.pdf&ei=SxccUuOMA8P-rAe38oEg&usg=AFQjCNFhBrI-EZAmolkqqN_SZezuz9p5PQ&sig2=EHkYinAKgyRA2wpcvy-KsA&bvm=bv.51156542,d.bmk
http://www.litbang.deptan.go.id/special/komoditas/b4karet

[xxi] http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=39&cad=rja&ved=0CGUQFjAIOB4&url=http%3A%2F%2Fwww.satgasreddplus.org%2Fdownload%2FNurnowo_Paridjo_Kebijakan_Perkebunan_dalam_pengelolaan_perkebunan_yang_Lestari_Berkontribusi_pada_REDD%2B.pdf&ei=2TYTUqaHKYPtrQfj1oHoCg&usg=AFQjCNHPhLhuaqZZZPUCUyZSY6e0PF3CUQ&sig2=QJL8f_vfnUJnfMQJK5bfuw&bvm=bv.50952593,d.bmk
http://roedijambi.wordpress.com/2012/10/24/kebijakan-perkebunan-karet-rakyat-di-indonesia/
http://www.beritasatu.com/ekonomi/60318-pemerintah-siapkan-rp5-t-revitalisasi-tanaman-karet.html

[xxii] http://www.lkpm.org/2012/12/perkebunan-karet-rakyat.html
http://balittri.litbang.deptan.go.id/index.php/component/content/article/49-infotekno/166-peran-strategis-industri-benih-dalam-gerakan-nasional-peningkatan-produktivitas-karet-di-indonesia

[xxiii] http://ekonomi.kompasiana.com/bisnis/2010/12/31/meretas-jalan-petani-melek-informasi-329131.html

[xxiv] http://bisnis.com/kelapa-sawit-skema-insentif-berpotensi-pacu-cpo-bersertifikat
http://sawit-indonesia.com/sejahtera-dan-sadar-lingkungan
http://eksposnews.com/view/7/30413/Petani-Kopi-Gayo-Akan-Dapat-Insentif-Harga.html#.Uh7xt5Gs3t0
http://www.108csr.com/default/news/2012/05/01/30018/Petani-Kopi-Gayo-Dapat-Dana-Premium-Sosial-Rp173-Miliar
http://www.agrina-online.com/redesign2.php?rid=19&aid=3692

[xxv] http://e7naga.blogspot.com/2011/01/pengembangan-kebun-kelapa-sawit-pola.html
http://ekonomi.kompasiana.com/agrobisnis/2012/08/14/ternyata-kebun-plasma-kelapa-sawit-menguntungkan-pengusaha-479429.html
http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=10&cad=rja&ved=0CIMBEBYwCQ&url=http%3A%2F%2Fwww.scaleup.or.id%2Fpublikasi-kolom%2FPIR%2520Harus%2520ditinjau%2520ulang_IND.pdf&ei=nMlPUvihBISRrQfF-YGAAw&usg=AFQjCNECCQM8EOw_Z4-fNkKjg8OlFFOJFg&sig2=R2UuzbCPIfFFuk9SG-CPOA&bvm=bv.53537100,d.bmk
http://bangazul.blogspot.com/2012/06/evaluasi-penerapan-inti-plasma-pada.html
http://repository.ipb.ac.id/handle/123456789/52022
http://infojambi.com/ij/topik-utama/7293-petani-sintang-belajar-sawit-ke-asianagri.html
http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=7&cad=rja&ved=0CGAQFjAG&url=http%3A%2F%2Frepository.usu.ac.id%2Fbitstream%2F123456789%2F33895%2F4%2FChapter%2520II.pdf&ei=TeFPUq7tIIaMrAfl8IGQAQ&usg=AFQjCNFeoscrh0pkf_unUG-xitiK4V4o4Q&sig2=_A33XHB3Oka4-imqnQiaZQ&bvm=bv.53537100,d.bmk

[xxvi] http://ditjenbun.deptan.go.id/perlindungan/berita-212-petani-kopi-sekolah-lapang-pengendalian-hama-terpadu-slpht-cemoohan-yang-jadi-kekaguman.html
http://www.ciputraentrepreneurship.com/perdagangan/wiarwan-sukses-populerkan-kopi-aceh-ke-manca-negara
http://ap2kjb.blogspot.com/
http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&cad=rja&ved=0CDoQFjAC&url=http%3A%2F%2Fpse.litbang.deptan.go.id%2Find%2Fpdffiles%2FPros_2012_06B_MP_Ade.pdf&ei=b_FPUrjKO4qFrgeB04Bo&usg=AFQjCNHWnhlddiM1dqW3CKf1IuwGWYmQQ&sig2=8gnU0po1ywSK-vxZ3VHMVg&bvm=bv.53537100,d.bmk
http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=5&cad=rja&ved=0CEwQFjAE&url=http%3A%2F%2Fwww.bi.go.id%2FNR%2Frdonlyres%2F20B99895-8181-4992-94E7-765720CDF9E2%2F15831%2FPerkebunanKopiArabika.pdf&ei=b_FPUrjKO4qFrgeB04Bo&usg=AFQjCNGHRkLe5YuUxgwmYmAJV_20e0PKbg&sig2=7XsdFmve6uA1SRA4Ws7SQg&bvm=bv.53537100,d.bmk
http://jarekputradi.blogspot.com/2009/10/evaluasi-kinerja-kemitraan-agribisnis.html
http://www.library.ohiou.edu/indopubs/2000/08/21/0093.html

http://gayonusantara.blogspot.com/2013/04/kopi-gayo-nama-yang-mendunia-dan-petani.html
http://peluangusaha.kontan.co.id/news/sadarsah-memberi-nilai-tambah-kopi-dan-mengangkat-nasib-petani-lewat-koperasi-2
http://www.republika.co.id/berita/gaya-hidup/travelling/13/07/13/mpt3yc-inilah-negeri-kopi-robusta
http://kopi-sidikalang.blogspot.com/
http://www.kabargayo.com/2013/09/premium-kopi-di-gayo-sudahkah-tepat.html

[xxvii] http://www.agrina-online.com/redesign2.php?rid=22&aid=4454
http://www.bisnis-jabar.com/index.php/berita/petani-teh-jabar-butuh-bantuan-modal
http://www.pn8.co.id/pn8/index.php?option=com_content&task=view&id=320&Itemid=1
http://www.kpbptpn.co.id/news-6771-0-semua-kebun-teh-rakyat-ditargetkan-dapat-sertifikasi.html
http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=15&cad=rja&ved=0CEoQFjAEOAo&url=http%3A%2F%2Frepository.ipb.ac.id%2Fbitstream%2Fhandle%2F123456789%2F44568%2FA07aah.pdf&ei=apFOUux6iY-uB47mgbgL&usg=AFQjCNHo-6GjuZKSoLbM88MtV4JNY-lbHg&sig2=qXQ1Sbs-y41cJb32cD6PWQ&bvm=bv.53537100,d.bmk
http://indoteaboard.org/z1/?p=258
http://www.pikiran-rakyat.com/node/89906
http://bisniskeuangan.kompas.com/read/2011/11/18/04261883/Impor.Teh.Dicemaskan
http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=28&cad=rja&ved=0CGIQFjAHOBQ&url=http%3A%2F%2Fdwiretno.lecture.ub.ac.id%2Ffiles%2F2012%2F01%2FKelembagaan-Pertanian.pptx&ei=YZBPUpW7L4aFrAfGsoHQDg&usg=AFQjCNEB45wI0BCEEZmK0vdSr_ptdpVdSg&sig2=lDlZ28eKpGTZvut5-4A03Q&bvm=bv.53537100,d.bmk
http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=28&cad=rja&ved=0CGIQFjAHOBQ&url=http%3A%2F%2Fdwiretno.lecture.ub.ac.id%2Ffiles%2F2012%2F01%2FKelembagaan-Pertanian.pptx&ei=YZBPUpW7L4aFrAfGsoHQDg&usg=AFQjCNEB45wI0BCEEZmK0vdSr_ptdpVdSg&sig2=lDlZ28eKpGTZvut5-4A03Q&bvm=bv.53537100,d.bmk

[xxviii] http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=30&cad=rja&ved=0CGUQFjAJOBQ&url=http%3A%2F%2Fpasca.unhas.ac.id%2Fjurnal%2Ffiles%2F9c7d3966c3a6567244d7abb95f09539a.pdf&ei=pM1UUoWLOouWrAfuvIHoDw&usg=AFQjCNG4f7hmjuW2VuVqr0QeKsxsQaT76Q&sig2=rNTJSanTmF6UzhjNIlmb3g&bvm=bv.53760139,d.bmk
http://www.waspada.co.id/index.php?option=com_content&view=article&id=205957:petani-kakao-tingkatkan-mitra-usaha&catid=13:aceh&Itemid=26
http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=48&cad=rja&ved=0CF8QFjAHOCg&url=http%3A%2F%2Fdisbun.riau.go.id%2Findex.php%2Fdownload%2Fcategory%2F9-pedoman-teknis-pphp%3Fdownload%3D35%3Apedoman-teknis-pphp-2013&ei=FQteUo71DYuzrgfp_YCYDw&usg=AFQjCNHymH6BSJmPjLGwiB3lEA-VcwMzSQ&sig2=TYeZoaZwUIiM-UVsiJgkAA&bvm=bv.53760139,bs.1,d.bmk
http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=59&cad=rja&ved=0CGMQFjAIODI&url=http%3A%2F%2Fwww.swisscontact.or.id%2Fwp-content%2Fuploads%2F2012%2F08%2FPR_SCPP_MoU_Agara_4_Sept_2012.pdf&ei=NQ5eUpmkA8bhrAeCroCwDQ&usg=AFQjCNEpDurgjyFWBOCUegploz0WgHWRUQ&sig2=TBaJDpXPBCN6ECBWOZaozA&bvm=bv.53760139,bs.1,d.bmk
http://ditjenbun.deptan.go.id/tanregar/berita-165-kemitraan-usaha-antara-petani-kakao-dengan-asosiasi-eksportir-dan-industri-kakao-indonesia-aeiki.html
http://www.dedesuryadi.com/web/?p=63
http://hierobokilia.blogspot.com/2011/06/dinas-koperasi-bangun-kerjasama.html

http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=37&cad=rja&ved=0CFkQFjAGOB4&url=http%3A%2F%2Flontar.ui.ac.id%2Ffile%3Ffile%3Ddigital%2F125840-5566-Variabel-variabel%2520pengaruh-Analisis.pdf&ei=4zFQUtT5H8bIrQf_9oCAAQ&usg=AFQjCNFqzGEGhjUeERP_0L885lT6hP7rzw&sig2=DlwdG8i6gClO0d33OCJQrQ&bvm=bv.53537100,d.bmk

www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=4&cad=rja&ved=0CEMQFjAD&url=http%3A%2F%2Frepository.ipb.ac.id%2Fbitstream%2F123456789%2F4382%2F4%2F2001fwa.pdf&ei=JiVQUqPLFIK4rAfsgYHgBw&usg=AFQjCNF5QOxUJ9fKCqSuzcaaGfhOsGr9lg&sig2=hbZdPrsT_1KjEefzM-5Thw&bvm=bv.53537100,d.bmk

http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=55&cad=rja&ved=0CEcQFjAEODI&url=http%3A%2F%2Faciar.gov.au%2Ffiles%2Fnode%2F757%2FACRC206_layout.pdf&ei=exxSUrW0F4m4rgePnICADw&usg=AFQjCNElHBs02PhCTB6bNqc4mxdpHS6wuw&sig2=f9U9d0ddrAFgu0jHuWa9uQ&bvm=bv.53537100,d.bmk

http://dedesuryadi.blogspot.com/2009/06/mencermati-pola-kerja-sama-dan-model.html

http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=96&cad=rja&ved=0CFIQFjAFOFo&url=http%3A%2F%2Fwww.kppod.org%2Fdatapdf%2Flaporan%2Flappen-gernas-kakao-majene.pdf&ei=qzlSUoPiF8OMrQe9wIGIDQ&usg=AFQjCNFHf4OO7TAe2s3ZhJwypzgryF8PCw&sig2=6rXM0rsbtYbht6bnFwfcwg&bvm=bv.53537100,d.bmk

http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=78&cad=rja&ved=0CGIQFjAHOEY&url=http%3A%2F%2Ffaperta.ugm.ac.id%2Fsemnassosek%2Fform%2Ffiles%2FABSTRAK_PAK_SUNARRU.doc&ei=YWZSUoDrFMisrAf4xYEw&usg=AFQjCNEicLhIDrSZhIjbarLSA427zIbnRw&sig2=6seSuLws0mtf5JC03yIBpQ&bvm=bv.53537100,d.bmk

[xxix] http://sarmanpsagala.wordpress.com/2009/08/23/peranan-kkpa-dan-penggunaan-pupuk-dalam-meningkatkan-pendapatan-petani1-2/

http://www.slideshare.net/joelkurniawan9/savedfiles?s_title=pengembangan-pemasaran-bokar&user_login=aprizaljalamsyah