



**Trust, Norms and Networks:
The Role of Social Capital in *Cattle
Redistribution* Implementation towards
Indonesian Beef Sovereignty:
Case of Tanah Laut and Pulang Pisau, South and
Central Kalimantan Provinces, Indonesia**

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“It would not be easy, yet it would be worth it!” (Adopted from Matt 7:13-14)

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List of Acronyms

ABP	Administration Board of <i>Poktans</i>
ADB	Asian Development Bank
CG	Central Government
CR	Cattle Redistribution
CRP	Cattle Redistribution Program
Disnak	<i>Dinas Peternakan</i> (LG agency of Animal Husbandry)
EW	Extension Workers
GoF	Group of Farmers
IR	Interest Rate
LED	Local Economic Development
LFG	Local Farmer Groups
LG	Local Government
NIE	New Institutional Economics
Poktan	<i>Kelompok Tani</i>
PP	<i>Pulang Pisau</i>
PPL	<i>Petugas Penyuluh Lapangan</i>
RF	Revolving Fund
RFP	Revolving Fund Program
SC	Social Capital
SEs	Survival Entrepreneurs
TL	<i>Tanah Laut</i>
TNN	Trust, Norms and Networks

Abstract

This research study explores two different modalities (Hybrid and Common Goods model) implemented in *Poktans* in two different Districts in Kalimantan Island, Indonesia, in order to analyze under what conditions the *Poktans* achieved different successful result on modality implementation. *Poktans* in this regard are a promising vehicle to implement development programs as well as social capital manifestation. A discussion is made highlighting that Poktans formation involve the rational action based on social capital elements. Using our data set, we firstly identify trust, norms and networks in the *Poktans*. Trust arises as a result of day-to-day interactions also known as existing networks, and the working relationships with others (that is LGs agencies). We further show that different *Poktans* arrangement impose different level of result in the modality implementation. Even with one modality implemented, different results have been seen on *Poktans* performances. As such, when LGs try to implement different version of modalities, they should carefully consider the institutional and social context of people in those various areas.

Relevance to Development Studies

The formation of a group is subject to social collateral representation with regards to trust, norms and networks. As a result, many group lending literatures focus on imperfect information and transaction costs in the lending process. A research on *Poktans* in *Cattle Redistribution* holds the rationality of group lending in which each member is held ‘mutually responsible for all credits of the group’. This program aims to improve small scale farmers through cattle breeding in order to increase local production. This study has attempted to contribute to the discussion of TNN, which are the most common elements that attach to the definition of SC used by Putnam (1993) and Coleman (1990), and incentive system on group lending scheme in which self-selection of members and screening process of borrowers taking place, through empirical studies of modality implementation on *Poktans* in *TL* and *PP*.

Keywords

Social capital elements, group lending, local group of farmers, *kelompok tani* (*Poktans*), modality, hybrid and commons model, incentive system.

Chapter 1

Introduction

1.1 Background

The Cattle Redistribution (CR) scheme has been widely implemented at local level in Indonesia as a developmental program in order to increase cattle population through cattle breeding with the ultimate goal being the improvement of the welfare of local farmers and support the National Program of Beef Self-Sufficiency (**Appendix 2 Figure A**). The idea has been executed through a Revolving Fund (RF) scheme, which is a fund established by Local Government (LG) for specific purpose to be managed and revolved as a new fund used again for the same purpose. In this case, it has been in the form of CR among local farmers. This scheme has also been referred to as ‘modality’. The idea of group lending under microfinance scheme has been adopted into this new scheme in which farmers are encouraged to organize into group in order to participate in government’s programs.

The principle of this program has been to provide cattle to **the poor farmers** instead of giving them money. The idea has been to “**organize borrowers into small groups**’ (Zephyr & College, 2004) as it ‘holds society together’¹ and gives ‘high priority to building Social Capital (SC)’². Tedeschi claims that group members under group lending scheme are jointly liable for each other’s loan (Tedeschi, 2006, p. 85) that represent a form of social collateral. Grootaert explains that local associations are a place of sharing information among members, minimizing opportunistic behavior and also serve as vehicles for collective action (Grootaert, 1997). *Kelompok Tani (Poktans)* is a specific name for local group of farmer in Indonesia famously introduced in the 1968, as the main target of cattle program and a channel for agricultural extension service in rural areas. In general, the members of *Poktans* were reorganized into farmer groups that engaged in the similar activities such as live-stock rearing.

In this regard, the LG of *Tanah Laut (TL)* and *Pulang Pisau (PP)* have been motivated to implement this modality to stimulate the creation of small-scale cattle breeding activities that would increase local production. **Local production** has been considered the main driving factor to increase the local beef supply to ultimately contribute in the long run to the National beef production program. In rural areas, this activity has been costly and literally not profitable on the small scale. It has been realized that it takes a longer time than cattle *fattening* business and **hardly gets access to credit loan from banks**. Therefore, the Cattle program has been implemented to help small-scale farmers to engage more viable activities.

Though aiming for the same goal, *TL* and *PP* have implemented different type of modality. The schemes (modalities) were initiated in the mid-1960s as

¹ James Wolfensohn cited in (Woodworth, 2008, p. 36).

²(Muhammad Yunus, “What is Microcredit?” Grameen Bank, www.grameen-info.org/bank/WhatisMicrocredit.htm)

part of a poverty reduction project implemented by central government (CG) and Asian Development Bank (ADB) in the 1980s, focusing on rural areas. In practice, both modalities required individual farmer to form a group based on 'Self-selection'. The reason was to sustain the program through social collateral, joint liability, represented by the group. The LG believes that the *Poktans* that (with self-selected members) will be able to perform peer monitoring and sanction in the group.

However, it seems that LGs purposefully and sometimes improperly adopted and implemented modality without considering institutional and social contexts. As such, modality implemented in *TL* and *PP* were hampered with problems of low repayment and slow redistribution rates, inability of LG agency to identify and reach the potential groups and poor design and planning in modality implementation. In terms of planning, the LGs simply adopted the one that had been successful implemented in other areas without understanding under what conditions they were successful. Moreover, the monitoring process had also become an issue in modality implementation. LGs assume that *Poktans* will effectively do the monitoring with regards to group lending scheme, which would ensure that each member is jointly liable for the others' action. These problems have been the cause of many concerns, as LGs and agencies struggle with the result and overlook the causes.

This research study explores two different Modalities (Hybrid and Common Goods) implemented in *Poktans* in *TL* and *PP* in order to analyse under what conditions the *Poktans* achieved different successful result on modality implementation. The study aimed to find out why some *Poktans* performed better than the others and under what conditions were they well implemented. This raises further questions how the *Poktans* were formed, how modality implementation took place and why the two modalities achieve different results?

To answer these questions, a close look at how the *Poktans* were formed relative to modality implementation process is made. The answer to the first sub question would identify the elements of SC in the *Poktans* formation. In this regards, a discussion is made highlighting that *Poktans* formation involves the rational action based on **trust** that help members to minimize the default risk and maximize the access to other resources through personal relationship with others. Trust also arises as a result of day-to-day interactions also known as **existing networks**, and the working relationship with EWs. Furthermore, regular meeting has been considered a form of *Poktans* institution where enforcement of sanction to the members is achieved.

Regarding the second sub-question about the notion of the different modality implementation in *TL* and *PP*, it has been found that modality should be implemented with special consideration of the local conditions (that is the availability of the land and cattle feed). The third sub-question is that of the differences in result from implementation of different modalities. Both modalities were part of poverty alleviation project in the 1960s as earlier noted. Some claim that it was introduced by ADB in the mid-1970s to help poor farmers. However, the Hybrid is identified as a group contract in which all members are jointly liable for the others' repayment. Common Goods are considered an individual contract where a group is jointly liable for others' liability.

Chapter 2 of this paper discusses the theoretical background of this study by presenting the concept of group lending under microfinance scheme that

represents trust, norms and networks. The existence of group lending lead to institutional arrangement that minimize transaction cost and reduces opportunistic behavior in the group. The logic of survival entrepreneurs (SEs) is discussed with specific regard to the character of local poor farmers. Chapter 3 explores how *Poktans* are formed and their important role in modality implementation. In addition to this, a closer look at the role of LG agencies, *Dinas Peternakan (Disnak)* and EWs, vis-a vis the program design and monitoring. Chapter 4 is a discourse on the common practice of *CRP* in areas under study. The discussion covers how the modality evolved and further explores the different type of modality implemented in two different areas in Indonesia. Chapter 5 examines how the findings in chapter 3 and 4 could fit or compare with the framework in chapter 2. Finally, in Chapter 6, conclusions are made the preceding discussion and issues for further study are identified in the context of the theme under study.

1.2 Research Methodology

Based on the research objectives, this study is going to identify the significant relation between Revolving Fund Program (RFP) implementation and elements of SC on *Poktans* in receiving modality. In addressing this objective, we will start from assessing how *Poktans* formed in the selected area of study relate to RFP. Secondly, this study will also compare the two modalities (that is Hybrid and Common Goods) implemented in *Poktans*. In addition to this, a closer look at the characteristic of study area and farmers who are involved in this program is done.

1.2.1 Data Analysis

Both qualitative and quantitative methods were used in this study though mainly qualitative research methods were employed to address the research objective and to answer research questions. The first sub-question was answered using qualitative interview and questionnaires that captured for analysis the SC elements (Likert scale). The second and the third sub-questions were answered using a qualitative interview and literature background knowledge.

1.2.2 The Data Collection

A field research was undertaken for primary data collection from July to August 2012. The data collected for this study came from the LG, LG agencies and *Poktans* in which RFP was implemented. From local authorities, data collected was on RFP background, design and implementation. In this regard, three instruments used to capture data on:

- a. The rationale of RFP or modality obtained through interviews with local planning and development board (*Bappeda*) and the technical unit of program implementation (*Disnak*). The main information gathered were the background of RFP in Kalimantan Island, the scheme of RFP and the reason of program implementation.
- b. The implementation of RFP discussed with *Disnak*. In the implementation stage, agricultural EWs play an important role in supporting the

process of program. Furthermore, the selection/screening also plays a crucial role in the process of implementation.

c. Actors involved in RFP implementation.

At the level of community (*Poktans*), interviews with focus groups of farmers and *Poktans* leaders were held to obtain information regarding the *Poktans* formation and member selection. Information was also established about the function of EWs in the groups and the responsibility or contribution in the formation stages. Two instruments were used in this level as follows:

- a. Information on how the *Poktans* were formed as established through interviews with administration board of *Poktans* (ABP) such as the leader and the secretary, members of *Poktans* and extension workers (EW).
- b. The mechanism of member selection was also discussed with *Poktans* and members. The aims was to learn how farmers gathered to form the group (collective action) and about the objective of the formation and how exclusion took place in the process.

The third part of data collection was use of a questionnaire distributed to farmers (members of *Poktans*) that aimed to identify the existence of SC within members and between LG and *Poktans*.

1.2.3 The Data Sampling

This study was conducted on farmers receiving cattle through a program known as CR in *TL* and *PP* District. Both districts located on the island of Kalimantan are well-known as tropical forest areas and as agricultural zones. This Island has a low population density though close to Java. The population of Kalimantan Island is 90% Moslem. It has lower level of income and relies on the traditional agriculture. Moreover, *TL* and *PP* are located in the different province of Kalimantan: South and Central Kalimantan respectively in which both areas were used for resettlement under the National Transmigration Program in the 1970s.

Within each district two sub-districts were selected to be part of this study based on location criteria of cattle distribution (the highest cattle distribution area). The sub-district in *TL* was Pelaihari and Bajuin, while Kahayan Hilir and Maluku were selected in *PP*. In each sub-district, six *Poktans* were interviewed regarding to *Poktans* formation and member selection. Within each *Poktans*, four members were selected to participate in the SC survey through questionnaires. Within six *Poktans*, two *Poktans* were randomly selected from each district to compare how modality implemented in the two districts influenced or related *Poktans* performance and sustainability (refer to Table 1).

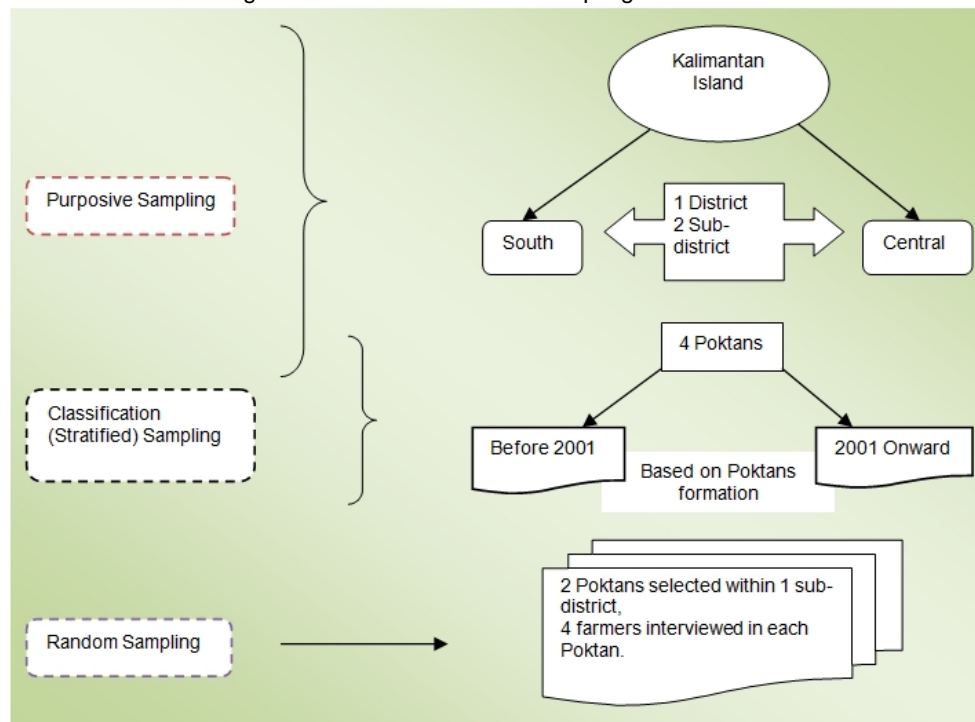
Table 1 Selected Group of Farmers (*Poktans*)

Items	<i>Poktans</i> in TL District		<i>Poktans</i> in PP District	
	Margo Mulyo II	Harapan Bersama	Usaha Mandiri	Suka Maju
Classification	Group of women	Majority of members are male	Group of Men	Group of specific ethnic (Madura)
Total members	20	30	17	55 Farmings: 36 ppl
Year of formation	2004	2010	2009	1981
Year of cattle receiving	2004	2011	2010	2010
AD/ART	√	√	√	n/a
Sanction	Applied	Applied	Applied	no
Note			Part of Panca Karya established in 1984	

Source: Own elaboration based on interviews with *Poktans* (2012).

Figure 1 illustrates the process of data collection and sampling employed in this study.

Figure 1 Data Collection and Sampling Framework



Source: Own elaboration based on Data Collection and Sampling (2012)

1.3 Limitation of Study

The major limitations faced by the researcher during the field work were the absence of potential correspondents (that is *Poktans* members), due to high rate

of temporal migration to urban areas during post-harvesting time. Secondly, the issue of bureaucracy and unavailability of key persons to participate as interviewees contributed to a slow data collection process. For instance, key persons who were involved in the program were already retired and it appeared that they were the only people who capable of dealing with or handling issue surrounding the program under investigation. Furthermore, there was no database or documentation available regarding to program. All this resulted in a prolonged and time-consuming process of getting more appropriate and reliable data from other authentic sources or persons. Since the data collection nearly coincided with the Muslim Ramadhan season starting in July, there was limited time in conducting interview with respondents. Finally, researcher was not able to attend the regular meeting of selected *Poktans* as scheduled due to re-scheduling of meetings to September (that is after the Eid Mubarak).

Chapter 2

Literature Review, Concept and Analytical Framework

2.1 Introduction

Literature on development economics states society that is rich in social ties and networks tends to have a stronger position to overcome poverty and social vulnerability and have better development impact in the region (Grootaert, 1999, pp. 4-5). Many studies have linked this with an element some authors call “Social Capital”³. SC consists of several elements that contribute differently to the development and economic growth. Yet, socio-cultural characteristics of the community will be very influential on the role of SC in welfare at the micro, *meso* and macro level. This chapter discusses the concept of group lending under microfinance scheme that represents “social collateral” where is in line with SC. Subsequently, we come up with New Institutional Economics (NIE) in dealing with the incentive system. We also consider the logic of survival entrepreneurs to define the characteristic of *Poktan* members.

Thus, the goal is to frame a conceptual framework on how SC supports microfinance scheme to be successfully implemented in the rural areas. The target of the program is *Poktans* that have considered being SEs.

2.2 Microfinance Scheme and Group Lending

Microfinance scheme was first introduced in 1976 by Grameen Bank with a focus on credit delivery for the poor. It was implemented as pilot project known as “bank for the poor” in Chittagong village in Bangladesh. The main idea of this approach lied on the fact that ‘the existing economic and commercial banking system was not intended for the poor’, instead credit was created only for non-poor people who were able to provide a guarantor and collateral requirements to financial providers (Thas & Getubig, 1993, p. 14). It has been appreciated that at the local level, small scale economic activities are mostly done by small scale farmers who have no proper structure as business entities. This has resulted in difficulties of gaining access to commercial financing system (bank) to get credit. Credit, according to Basu (2008), is a tool that play potential role in terms of poverty reduction and economic empowerment. While Yunus (1986) stated that credit gives an opportunity for small-scale farmers to increase their incomes, ‘it needs to be understood, accessed, used and utilized efficiently to bear significant outcomes’ (cited in Basu, 2008, p.274).

³ Reviews of the elements of SC can be found in Coleman (1990), Robert Putnams (1993), Grootaert (1997), Fergus Lyon (2000), Elinor Ostrom (2005).

2.2.1 Rationale of Microfinance

Microfinance is not a new scheme in development programs, yet it has a powerful meaning in terms of helping the poor to fight poverty. Most of developing countries in the last two decades have considered the provision of this scheme in their agenda of development programs (Zaidi, et al., 2006, p. 172) and the same is true in developed countries (Shil, 2009, p. 195). The essence of microfinance intervention in development is to make available and affordable credit to small and medium business in urban areas and small scale farmers in the rural areas. At the early stage, microfinance ‘focused on imperfect information and transaction cost in the lending process’ (Ghatak, 1999, p. 27) that could be minimized through a group lending formation in which its contribution solved the problems of adverse selection and moral hazard (Tedeschi, 2006, p. 85). It is designed to eliminate physical collateral and guarantor as required in individual micro-lending and to lead the participants becoming self-employed (Vigenina & Kritikos, 2004, p. 156). In other words, this program of extending small loans to the poor is aiming for income generating activities to sustain themselves and families (Abdullah, et al., 2011, p. 126).

Microfinance is ‘microcredit plus’ that also integrates with technical assistance, support services and capacity building (Latif, et al., 2011, p. 164). It started in the 1990s and considered as development strategy that aim for delivering credit to the poor in rural areas. Rahman (1999) refers microfinance to group lending as a representation of ‘social collateral’ (p. 71) that establishes through borrowers engagement in group membership. Unlike the real meaning of collateral, it helps borrowers to minimize the risk of default through sanction applied in the group and peer enforcement (Rankin, 2002, p. 12). Other scholars explain that credit provided by Microfinance Institutions are for individuals that are engaged in a group of three to ten people in which they are held ‘mutually responsible for all credits of the group’ (Vigenina & Kritikos, 2004, pp. 157-57).

The introduction of social collateral in the scheme is also intended for the borrowers to manage the repayment rates⁴. A high repayment rate is used to keep the financial sustainability of the providers in order to operate the programs. The role of group of borrowers is to mutually guarantee each other (Getubig, 1993, p. 57).

2.2.2 Group Lending

Yunus established a bank for the poor that aimed to provide credit in rural Bangladesh based on the scheme of micro-credit (Shams, 1993, p. 29). This was a small loan provided to people who do not have any collateral and guarantor to start self-employment projects that generate income in improving their standard of living. Under this scheme, the poor borrowers were re-organized to form a small group where members were held ‘jointly liable for the debts of each other’ (Ghatak, 1999, p. 28). Ghatak analyzed the scheme of group members’ **self-selection** as a crucial step in the group formation. For instance, each person had different information towards something; one per-

⁴ ‘The amount of repayments received as a percentage of the amount of repayments due one year after the loans is disbursed’ (Getubig, 1993: p.57)

son might have known his/her neighbours for several years and held that information while the loan providers do not have such information about the different type of borrowers. Ghatak's results showed that risky borrowers are less willing to accept 'an increase in the extent of joint liability than safe borrowers for the same reduction in the interest rate' (ibid, p.45).

Huppi and Feder (1990) claim that **'homogeneous' self-selected** members who are from the same neighborhood and level of income seem to perform better than other groups (cited in Ghatak, 1999, p.28-29). In addition, if one or two members are not cooperative in the repayment schedule, it would put a group in default position and vice versa. Tedeschi (2006) claims that such a formation (self-selected) would reduce *adverse selection*, *moral hazard* and transaction cost of the credit providers. In this case, the group would have a chance to select better and responsible persons who have the ability to participate and repay the loan. Once the group lending is formed, 'each member has the incentive to monitor the others' behavior' (p. 85). This paradigm was also supported by the early work of Stiglitz (1990) in which a group lending formation lead to reducing of moral hazard problems through peer monitoring process with an exception of self-selected group members (Ghatak, *op cit*, p.30).

In contrast, Besley and Coate (1995) examined the impact of *peer pressure* on improving the borrowers' willingness to repay the loan and **social sanctions** (1995, p. 3) regardless any self-selected method pointed by Ghatak (1999, p. 30). Moreover, Stiglitz and Varian looked at group lending as a mutual responsible contract to reduce moral hazard. They focused more on the informational advantages of forming the group lending. They examined how this affects the ability of members to repay the loan (Ghatak, Besley & Coate, *op cit*). In relation to the selection process of group lending participating in the loan, Varian (1990) comes with the method of the borrowers' selection through the screening process conducted by the loan providers (the bank). All members would be excluded from receiving the loan if one member was considered as risky member. In other words, the group is treated as being default as a result of a risky member in the group lending (Ghatak, *op cit*, p.29). In addition, this screening process would increase the transaction of lenders (Vigenina & Kritikos, 2004).

Social punishment as pointed by Besley and Coate, is used as an incentive to reduce the negative effect of group lending performance in loan repayment where the loan providers have limited sanction implementation on the risky borrowers (1995, pp. 1-2). There are two types of sanctions applied in group lending schemes. Besley and Coate (1995) characterized the first form of social reputation penalty where the contributing members should report their partners to the village ruling council and others in the village. So those delinquent members would be 'black-listed' from getting access to group lending. Secondly, the non-contributing members will not get an incentive to participate in the further loan activities (ibid, p.9-10). By applying social sanctions to the group, it will 'improve the relative performance of group lending in terms of repayment rates' (ibid, p.15).

In our study, *Poktans* are group lending in the sense that farmers use joint liability to provide 'social collateral' and utilize information in the *Poktans* formation. Cattle provided by LG hold the rationality of credit provided through microfinance to group lending in which each member is held mutually responsible for the groups' liability.

2.3 Social Capital and New Institutional Economics in Rural Development

SC is presented as the third component that contributes equally with physical infrastructure and human capital to rural development (Rainey, et al., 2003) and economic growth through the expansion of cooperation and trust that grows between actors in a network. Those would facilitate **the flow of information to be symmetrical** so that **transaction cost could be eliminated**. This is in line with the perspective of NIE in which focusing on the asymmetric information and the limitation of rationality in human behavior (bounded rationality) leads to the high transaction cost and moral hazard problems (Stiglitz & Weiss, 1981). Therefore, formal and informal institutions are important in order to understand the development of economy. So, institutional development should be able to reduce transaction cost and avoid opportunistic behaviors by strengthening mutual trust, norms and networks as important elements of non-material resources, also known as SC.

Many scholars consider that SC has substantial implication to development policy and project design. Grootaert claims that SC is an input that has major contribution to development project implementation locally and nationally (1999, p. 4). Putnam (1993) highlighted that SC affects people's ability to interact and communicate with others in the community because it is produced 'in the space between people'. Coleman (1988), however, states that SC 'inheres in the structure of relations between actors and among actors' to establish networks that provide benefits. In this sense, according to him, networks could be a *social security* in improving the access to resources by groups (ibid), a claim similar to that of Lin (1999) that it is rooted in social networks and relations.

In Indonesia, SC (also known as *non-material resources*) is a productive factor that benefits individuals who are bounded with others in the community especially in the resource-poor areas. It also encourages people to improve their shared values (norms) in interacting with others in the development process. One example of non-material resources in Indonesia is *Subak* (the traditional water management in Bali). The program is successfully implemented taking into consideration the elements of SC which are trust, norms and networks. In terms of *Poktans*, SC is embedded in the group and used as social collateral to access resources. The element of trust plays a major role in transaction cost and asymmetric information reduction. It helps members to minimize the default risk and maximize the access to other resources through personal relationships with others.

2.3.1 Definition of Social Capital

The concept of SC is developed by two mainstreams of sociologist-anthropologist and political and economic institutions. Coleman argues that SC is an attribute of the social structure in which an individual is part of the structure (1990). In other words, SC is embedded in social structures and has the characteristics of a public good that is in the same level with financial, physical and human capital. On the other hand, SC is also claimed as the social and political infrastructure of a country to increase the economic growth. Therefore, weak SC will be followed by an increase of rent seeking behavior and corrup-

tion, which results in inefficiencies and slow economic growth (Gylfason, 2002).

Putnam (1993) defined SC as trust that lubricates cooperation among people in the community. Here, trust is held by community or organization not individuals. Coleman explains that SC is embedding in relationships (1988). He further emphasizes that 'norms arise as attempts to limit negative external effects or encourage positive ones' (ibid). Adler and Kwon (2000) consider community and organization as focal actors to form the structure of social life feature and SC found in 'internal-linkages' (cited in Mc Elroy, et al., 2006, p. 126). Collier claims that SC overcomes the problems of opportunistic behavior and market failure (asymmetric information and free riders) (1998). It therefore could be used to facilitate collective action. In relation to the human resources, SC is the result of relationships between individuals that also have contributed something to the group. Moreover, SC can be defined as benefits that accrue from social networks between individuals (Lesser, 2000).

SC is norms and networks that enable individuals to do something together (Woolcock & Narayan, 2000). So, the focus more on the dimension of norms and social relations embedded in the social structures, which allow people to coordinate in order to achieve their objectives (ibid). Lyon (2000) argues that SC 'comes from the interplay of a range factors,... that shape how agents react and these reactions are shaped by existing SC'. The more it is used, the greater it becomes (p.664). Moreover, the institutional perspective argues that networks and society are a result of political, legal and institutional conditions. Finally, the synergy perspective explains that development could be achieved through a forum in which the government, private sectors and public are collectively identifying and achieving the common goal (Woolcock & Narayan, 2000).

2.3.2 Elements of Social Capital

In line with Coleman (1990), SC needs to be maintained in order to remain productive. It is evolving and becoming more productive when it is used. A commitment or trust is one crucial factor that defines the relationship within and between individuals. This concept is established in the macro, *meso* and micro level. SC is an institution of government and the rule of law and political freedom at macro level. While at the *meso* and micro level, it refers to norms and networks that build up the interaction between individuals, households and communities. This interaction could be a horizontal one which emphasizes the relation of members in a group (Putnam, 1993), or a vertical relation that is characterized by hierarchical relations and unequal distribution of power among members (Coleman, 1990). Norms established and agreed upon together in a group will encourage people to invest in the groups' activities. These activities emerge as a result of trust that rises from 'norms of reciprocity' (Putnam, 2000) that others would be responsible and do the same thing too.

Putnam presents three elements in forming SC, which are trust, norms and networks. He explains that those elements facilitate social coordination and cooperation for *mutual expectation* ⁵ (1993, p. 167). In this sense, mutual ex-

⁵ Also stated in Coleman (1990) and Fukuyama (1995)

pectation could be used to build a trust internally and externally (inside and outside the community). He also explains that trust could result from '**norms of reciprocity and network of civic engagement**' (Putnam, 2000). Moreover, Fukuyama states that trust is an expectation that emerges as a result of being honest, responsible and cooperative based on 'commonly shared norms, on the part of other members of the community (1995, p. 26). Another scholar claims that 'trust promotes cooperation' in the large group of people (Streeten, 2002, p. 43). Putnam (1993) states "social networks allow trust become transitive and spread". Therefore trust is an important component of SC (pp. 169-171).

Norms, on the other hands, refer to the 'property of a social system' (Coleman, 1990, p. 241) that is strengthened by and reinforce the dimension of trust. It defines 'what action is acceptable and unacceptable' that can be used to build personalized trust (Lyon, 2000, p. 675). Norms are shared values that regulate individuals' behavior within a society or group. They 'arise as attempts to limit negative external effect or encourage positive ones' (Coleman, 1988). Coleman also explains that norms emerge as people interact with others through regular communication and it is internalized by individuals (1990, p. 293). Putnam (1993) simplifies this as a '*generalized reciprocity*', meaning that in the future the *kindness* distributed today would be *returned*. Maloney et al (2000) in their study stated that 'the context of obligations, expectation and trust worthiness in which actors operate are components of SC (2000, p. 802). It also could be identified as norms. SC represents informal norms that develop network between individuals (Fukuyama, 1999). However, Ostrom (2005) claims that rules are also identified as norms 'with teeth'. They include written (formal) sanctions or penalties in the practice while norms do not (Ostrom, 2005, p. 140). Thus, norms give a positive value to communities such as a sense of solidarity and the sanctions that suppress the growth of opportunistic attitudes and behavior of free riders.

SC is a condition in which individuals use their membership in a group to access some benefits of interest. It bolsters the urge to create a **network** with others due to the presence of shared values. Coleman (1988) found that the density of social networks will increase the efficiency of strengthening cooperation behavior in an organization. According to Putnam, trust can arise from 'network of civic engagement' (Putnam, 1993). It refers to relations within individuals in the group and between other groups. In other words, networks lead to the creation of trust among people in the group and between others. Lyon (2000) claims that reciprocity is essential to build networks. It is shown by networks of working relation and pre-existing networks (pp. 672-673). Therefore, networks increase the dimension of trust when people 'are networked with one another in multiple ways and are within institutions that facilitate the growth of trust' (Ostrom & Ahn, 2003, p. xvi).

As discussed earlier, a *Poktan* represents social collateral in order to get access to credit and government programs. Grootaert (1999) explains that groups and local associations can be a manifestation of SC by looking at the specific condition such as 'the membership conditions and the degree of effective participation' (pp. 7-8). Therefore, trust and personal network would govern behavior leading to a group formation that influences the degree of participation.

2.3.3 New Institutional Economics (NIE)

Farmers and peasants in developing countries have limited access to information in the market due to poor infrastructure of communication in the rural areas. Dorward points that such a condition would result in the low economic development due to market failure and poor infrastructure (Dorward, et al., 2002). An effective institution would be able to minimize transaction cost and adopt new technology. Some scholars present the positive impact on institutional change in accessing market in developing economies. Holloway et al (2000) in their study showed that a group approach by farmers in the East-African highlands reduces transaction cost. As for the Poktans case, it serves its purpose by helping the group and the lender to alleviate asymmetric information through sharing information among members as well as reducing opportunistic behavior. Moreover, the group approach offers 'social collateral' in which member selection, group meetings and monitoring are conducted by the group. This reduces transaction costs of lenders.

In practice, farmers demand for information that could let them to access the market and reduce transaction cost. Their priority is to have stable and predictable income from agricultural activities. The losses and unstable income could lead to welfare problems (D'Haese, et al., 2005, p. 1454). Farmers could obtain information from many sources. Anderson & Feder (2004, p. 42) claim that 'public extension is one sources' that can be seen as a new institution in the agricultural development, but 'not necessarily the most efficient'. It has been shown by lack of accountability of field officers to farmers, weak political commitment and support, inability to transfer knowledge to farmers and fiscal unsustainability. Therefore, government should draw lessons from previous experience in designing an appropriate system of agricultural extension services to poor farmers, which will enable them to access information at lower costs.

2.4 The Logic of Survival Entrepreneurs (SEs)

SEs⁶ are several of economic activities conducted by the poor, in order to diversify their source of income and stabilize it. The reason of doing this is to survive and secure their life in times of emergency. In addition, the majority of SEs are young women and old people that have no other alternative to work. Street business and micro-enterprises in the rural areas are example of SEs. In regards to *Poktans*, they consist of poor farmers who act in a rational way with their actions based on their environment which is adaptable. In the case of *PP*, it is evident that more farmers are SEs due to the low agricultural activities in the villages. This condition results in the high rate of farmers working as temporal construction workers and shop-attendants in order to obtain additional income. Modality provided by LG is considered as saving.

The Characteristic of SEs

Most of SEs are established in the rural areas and poor urban neighborhoods. The function of houses, yards and streets is changed to be a place in which

⁶ Christian Rogerson came with two categories of Informal enterprise: *Survivalist and micro-enterprises* (Berner et al, 2008: p.385-86)

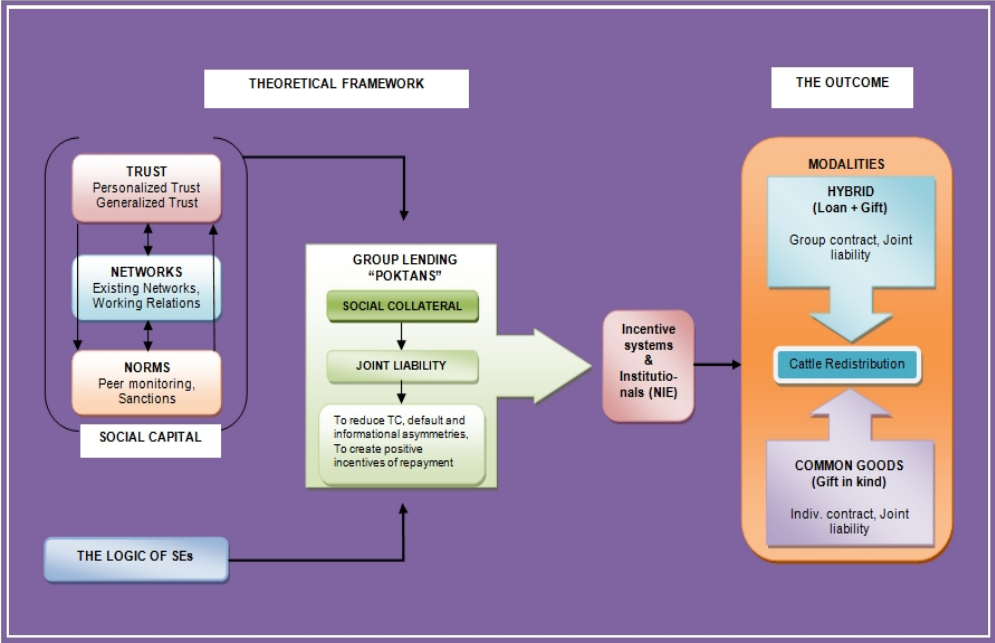
economic activity takes place (Berner, et al., 2008, p. 383). In rural areas, most local farmers are considered to be SEs with the main economic activities conducted by these farmers being agriculture and livestock rearing. However, they tend to look for other economic activities as additional sources of income such as informal wage labors, street-vendors, etc. The logic behind this is 'security through diversification' (ibid). The goods sold in the home-shops and cattle are forms of saving for SEs which can help the SEs survive during the difficult time.

Moreover, SEs seems to lack of motivation in making profit. For them the profit is only part of income. A shop for instance, is a form of saving in a time of crisis (the goods can be eaten or sold back to supermarket). Instead, they are focusing on how to 'diversify their income sources' (Berner, et al., p. 9). In Indonesia, the research has found that 47% of the households who had micro-enterprise had more than two sources of income. The poor farmers tend to have seasonal work in agriculture and after the harvest-time they change their activity by looking for another temporal job in urban areas or sell goods on the streets. In terms of the Cattle Program, most members of *Poktans* are not fully dependent on the livestock. During their waiting periods, they do other activities to generate more income. In other words, cattle are a form of saving in time of crisis.

SEs are bounded by what the scholars call the power of sharing. Berner (2008) illustrates this condition with an analogy of selling goods in portion-packed instead of in bottles or packs. With regards to *Poktans* which consists of very poor farmers, the culture attached to them is that of sharing. Finally, SEs independently runs their business activity risking themselves because of their very limited knowledge and experience in the field. Farmers basically follow a traditional agricultural system from the previous generation which is based on cattle breeding.

This paper is based on an understanding of the group lending concept introduced through microfinance scheme. It is represented by *Poktans* that participate in CR in rural areas in Indonesia. In identifying *Poktans* and its members, we take into account the logic of SEs in comparing the identity of local farmers who engage in CR in *TL* and *PP*. Modality used in this study is the LGs initiative to help small scale farmers to diversify their source of income (rather than focusing only on agriculture activity). Cattle are another form of saving that could be used in period of crisis. Further, this links to the SC concept as a result of the borrowers' group formation (group lending contract). Trust, norms and networks are the elements of SC that will be used as a tool to analyze under what conditions *Poktans* achieve different successful result on modality implementation. Why some works better than the others and under what conditions make they are well implemented. Those are in line with incentive system (NIE) in which group formation makes information becomes symmetric, so that transaction costs can be avoided. Figure 2 illustrates the flow of analytical framework of this research.

Figure 2 The Analytical Framework



Chapter 3

The Role of Local Farmer Groups and LG Agencies in Modality Implementation

In promoting the role of livestock farmer groups to improve the performance of the regional economy (the cattle central region in particular), the government has sought a way to improve the performance of the livestock sub-sector through a RFP at the local level.

This chapter discusses the role of local farmer groups (LFG) known as *Poktans* and LG agencies in the CRP implementation in *TL* and *PP*. The discussion begins on *Poktans* formation in both districts with a limitation only to groups that participate in the cattle program. The most significant issue arises here is the growth of *Poktans* in relation to RFP implementation and SC formation.

3.1 The Role of *Poktans*

LFGs are defined as ‘official groups established by the government as channels for diffusing improved technologies to farmers’ (Kawagoe, et al., 1992, p. 221). *Poktans*⁷ is a specific name for local farmer groups in Indonesia that were famously introduced during the New Order era in rural areas. They functioned as media to place development programs implemented by government, aimed at improving the welfare of communities.

LFGs were introduced in 1968 and were a channel for agricultural extension service in rural areas (**Appendix 3 E.1**). In the beginning, local farmers were organized on hamlet basis led by EWs without any field guidance system. Later, in 1975 the system was modified that enable local farmers to adapt to a new set of technology in field activities under the guidance of EWs. More so, the members of LFGs were reorganized into farmer groups that engaged in similar activities, working under similar farming conditions also known as ‘block of farmland group’ (Kawagoe, et al., 1992, p. 222).

In practice, *Poktans* with the **block of farmland** basis was not really effective in implementing government programs. Of note, one farmer could easily be involved in more than two *Poktans* and engage in the same activities or programs at the same time. This situation could result in ‘default’ since farmers were not able to comply with their agreement and commit their time and effort with the group. Therefore, under decentralization era, the organization of *Poktans* was re-arranged into groups that based on the same agricultural activities in the same neighborhoods.

⁷ We use the term “*Poktans*” interchangeably with local farmer groups or “group lending” (chapter 2 and further discussion on chapter 5).

3.1.1 *Poktans* Formation

Poktans are initiated and formed by local farmers based on ‘mutual help’ concept called *gotong royong*⁸. Kawagoe explains that this kind of activity falls into ‘collective activity’ based on the self-interests of members. He also highlights that such opportunistic behaviors in cooperative action are elude due to ‘tightly structured and demographically stable communities in rural societies’. The interaction of villagers is more intense than in urban societies (1992, p. 220).

In this case, *Poktans* is a group economic activity for agricultural purpose that is established by the LG with *self-selected method* implemented in group lending formation. *Poktans* consist of 20 to 30 members and led by the leader referred to as the contact farmer (*Kontak Tani*). In practice, the contact farmer is elected by the *Poktans* members and a working partner of EW to mobilize members in extension activities and development programs implementation. In Indonesia, *Poktans* are the essential social institutions within ‘the agricultural extension framework’ (Harun, 2003, p. 361). *Poktans* have the following functions:

1. Act as association places for farmers and their families,
2. Act as organizations of learning activities for farmers,
3. Make provision for producing, processing and marketing of agricultural products and capital accumulation.

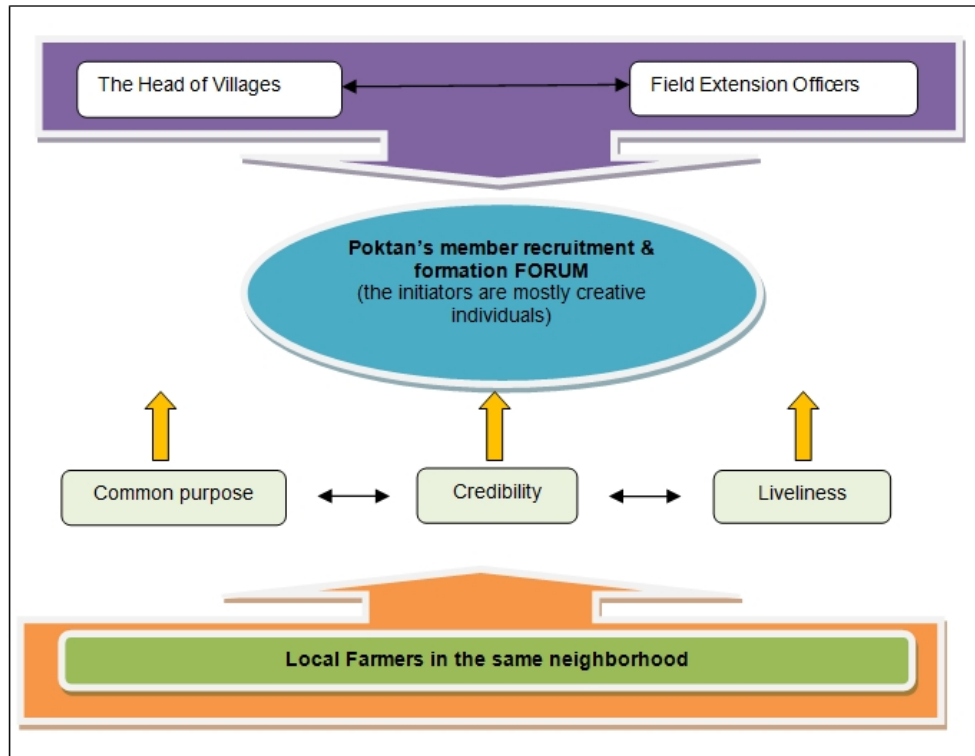
Moreso, *Poktans* are also important since they are considered a manifestation of SC in social networks. The recruitment and formation process of *Poktans* is as follows:

1. Community members should be from the same neighborhood who share the same objectives as farmers;
2. The *Poktans* selects its members based on an individual’s credibility in the neighborhood. The exclusion would be based on personal reputation → a person with bad reputation will be excluded from the *Poktans* membership;
3. The *Poktans*’ member selection will be based on the individual’s social activity within the community → the more social activities they are engaging in, the higher the chance they have to be a *Poktan* member;
4. The EWs are involved in the formation of the *Poktans* and their activities.

However, Grootaert highlights the important points to be taken into account in defining SC held by local associations (*Poktans* in this case), which are ‘identifying the membership conditions and the degree of effective participation’ (Grootaert, 1999, p. 7). In the case of CR, the formation and recruitment of *Poktans* members is presented in Figure 2.

⁸ Defined as cooperative work among neighbors (Kawagoe, et al., 1992).

Figure 3 The Diagram of *Poktans* Member Recruitment and Formation Process



Source: Own elaboration based on correspondence with the technical unit of *Disnak TL and PP*

The formation of *Poktans* in *TL* and *PP* is mostly conducted at community level in the same neighborhood. Farmers within a group are recruited based on their interests of joining the group and are engaged in similar agricultural activities in the same neighborhood. They are subject to the rules set up by group such as attending regular monthly meeting, commitment to contributing a membership fee as a part of group income sources (**Appendix 3.A**), participating in group activities that are discussed in the meetings and complying with all rules established collectively as a group.

3.1.2 The Growth of “*Poktans*” and *CRP* in *TL* and *PP* District

The research findings of this study show that *Poktans* have play an important role in getting added value in cattle management. In this case, LG needs to develop capacity and strengthen the institutional structure of rural economy. This approach should be supported by an effective strategy undertaken by LGs and communities in implementing programs (local farmers). For instance, local farmers could utilize an existing development program on a continuous basis by stimulating the sense of belonging, participation and creativity development that also supports others in the communities. This effort would be directed towards the formation of a group that is integrated, covering other agricultural and livestock activities.

TL and *PP* implemented a number of wide-ranging agriculture and livestock programs before and during the decentralization policy in 2001 based on legislation enacted in 1999. *PP* was a part of *Kuala Kapuas* District and was created as a new local authority in 2003. *TL* is a district established under South

Kalimantan Province. Both areas have implemented cattle development programs as part of their local development strategy.

In this section, the *Poktans* formation in both areas (*TL* and *PP*) has been classified in two categories that are before and after 2001. According to data findings, there was around 104% growth in *Poktans* receiving CR as Loans in *TL* especially after regional autonomy in 2001 (**Appendix 1 Table A**). The number of *Poktans* formed from 2002 to 2011 was 28 (Table 2) while 27 *Poktans* were established and participated in CRP before 2001 (**Appendix 1 Table B**).

Findings from interviews with the *Poktans* members indicated that farmers were inspired to form a group by the neighborhood *Poktans*. For instance, the *Poktans Harapan Bersama* established as a new group in 2010 in the village of *Pangung Baru* was supported by the neighborhood *Poktans Tunas Harapan* (established in 2007). The interview results also showed that the *Poktans* members received more benefits and knowledge for being a member of the group. One of the responses is given below:

“We are encouraged by Tunas Harapan that received cattle from LG. They have been succeeding in managing and develop the livestock activity in this neighborhood”.

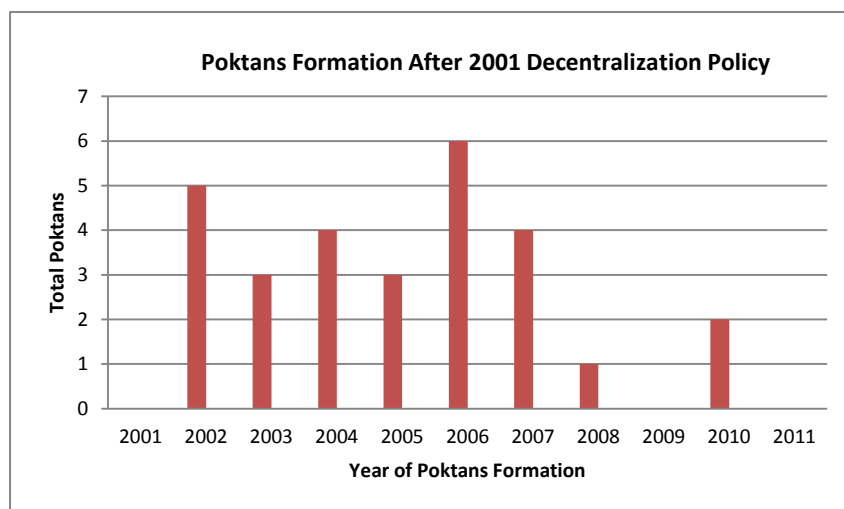
Table 2 *Poktans* Formation during Decentralization Policy in 2001 in *TL* District

Cattle Distribution (year)	Total Cattle Distributed	<i>Poktans</i> Formation (Year)	Total <i>Poktans</i> Established	<i>Poktans</i> Receiving Cattle*
2001			-	
2002		2002	5	
2003		2003	3	
2004	170	2004	4	
2005	170	2005	3	1
2006	500	2006	6	
2007	550	2007	4	2
2008	375	2008	1	
2009	120	2009		
2010	100	2010	2	
2011	140	2011	-	

Source: Own calculation based on data provided by *Disnak Kab. TL*.

*Total *Poktans* that were formed and participated in the same year of program implementation

Figure 4 *Poktans* Formation during Decentralization in TL



Source: Own calculation based on Poktans database in TL

Table 2 shows that during CR implementation from 2004 to 2011, **28 *Poktans*** were formed in TL. The reason for this may be related to the benefits obtained from LG programs to the *Poktans*. It is clearly shown that not all *Poktans* received cattle. Only 1 out of the 3 *Poktans* formed in 2005 benefited from the CRP in the same year of implementation while in 2007, 2 of the 4 *Poktans* participated in the program. What could have caused this? The technical unit of *Disnak* explained that those *Poktans* which received cattle in the same year of their establishment had met the selection and assessment criteria of being recipients.⁹ Others were considered to be non-mature groups of farmers that have no experience in cattle breeding before. However, the rest of the *Poktans* were to be re-assessed for possibility to benefit in the next program.

In PP, the number of *Poktans* that received cattle from LG grew significantly. The findings from the sampled area show that the growth of *Poktans* in cattle distribution (sub-districts) was triggered by the CRP. The growth of *Poktans* that participated in RFP from 2007 to 2011 was 392%. A total of 47 *Poktans* were formed after 2001, compared to only 12 before 2001 (**Appendix 1 Table C**)

Table 3 confirms that the growing *Poktans* in PP was influenced significantly by RFP. According to data from the 47 *Poktans*, 45% of *Poktans* were formed and received cattle in the same year of implementation of the cattle distribution program. For instance, an interview conducted with *Poktans Usaba Mandiri* (2009) that participated in cattle program in 2010 revealed that *Usaba Mandiri* was part of *Poktan Panca Karya* that established in 1984 with a total of 33 members. The new *Poktan* was formed in order to get involved in CRP. Below is a response from Ismanto:

“Not everybody in the group was going to participate in RFP, since not everybody has the experience in livestock. But we (refer to the new Poktans) are going to redistribute the calve among members (refer to the existing Poktans)”

⁹ The selection and assesment process of *Poktans* are further discussed on chapter 4.

Table 3 *Poktans* Formation after 2001 in *PP* District

Cattle Distribution (year)	<i>Poktans</i> Formation (Year)	Total <i>Poktans</i> Established	<i>Poktans</i> Receiving Cattle*
-	2003	2	
-	2004	1	
-	2005	5	
-	2006	2	
2007	2007	10	7
2008	2008	15	10
2009	2009	8	2
2010	2010	4	2
2011	2011	0	

Source: Own calculation based on data provided by *Disnak* Kab. *PP*

*Total *Poktans* that formed and participated in the same year of program implementation

3.2 The Role of LG Agencies in Cattle Redistribution Program (CRP) Implementation

Livestock distribution and development is one of the government's policies designed to achieve beef self-sufficiency and sustain the welfare of farmers in rural areas. According to Government Regulation No.38 of 2007 of the Republic of Indonesia, livestock deployment and development have been decentralized at local level and have become LG's authority.

3.2.1 The Technical Unit of *Disnak*

Disnak is one of LG agencies that have been involved in CRP implemented in *TL* and *PP*. At local level, LG agencies have been given a privilege to design and plan their activities based on participatory meetings at village, sub-district and district level. This has been reflected in the Midterm Development Plan (RPJM) of *TL* and *PP* for a 5 years period.

TL and *PP* has been a transmigration zone where farmers from other Islands have settled with the aid of the CG. Animal husbandry has been one of agricultural activities undertaken by small-scale farmers in rural areas in *TL* and *PP*. Cattle have been kept as part of farmers' mixed activities though having averagely low productivity.

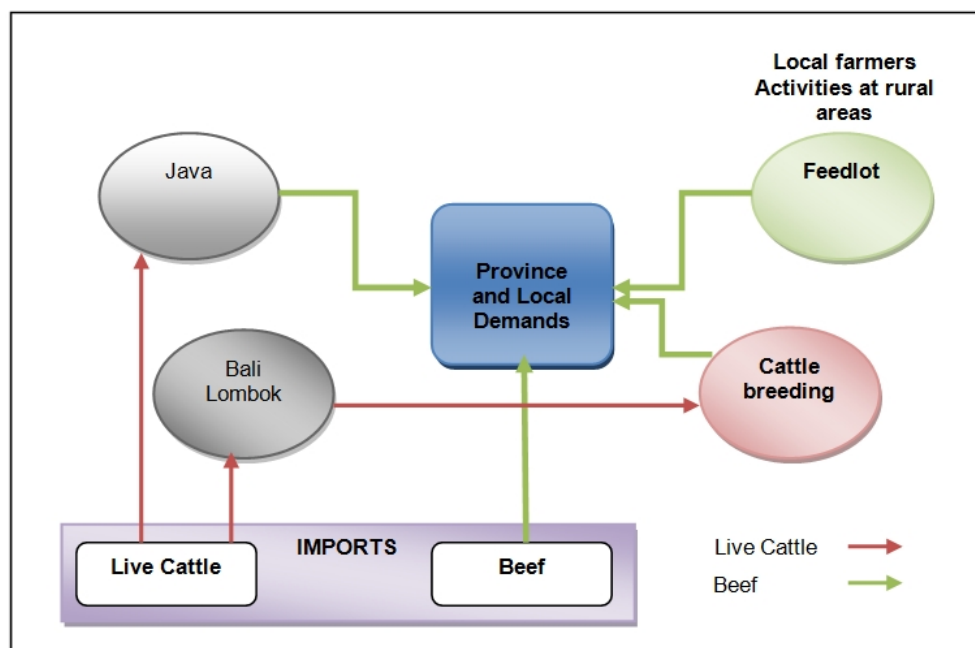
TL is one district located Kalimantan Island with the highest livestock (especially cattle) population in South Kalimantan. Beef development has been given priority in the LG programs. Around 40% of all beef supplied in South Kalimantan comes from *TL* (Figure 4). It is also estimated that around 250 cattle are transferred to other districts and outside the province though the number of cattle in the district needs to be increased in order to cover local demand especially and the province level in general. Therefore in this regard, the main concern of the LG has been to enhance cattle production to meet the seemingly surging demands.

In 2004, the *Disnak* implemented a credit program for cattle known as *RF of Cattle Program*. This program consisted of a **cattle breeding** program, CR that was intended to increase cattle population and help strengthen small-scale farmers' empowerment. Artificial insemination with local and imported semen was part of this program that aimed at achieving the set goals. Secondly, was the **Feedlot** program - an activity aimed at increasing self-sufficiency in beef production?

The processes involved in this program included cattle procurement, selection and assessment process of *Poktans*, monitoring (including cattle reproduction, artificial insemination, disease and regular health control) and evaluation of the implemented program. These have been conducted and supervised by *Disnak*. In the selection process, the team would communicate their assessment with EWs for further recommendation of the selected *Poktans*.

In the case of *PP*, the same conditions applied in that *Disnak* was involved in the program design, procurement, distribution and implementation unlike in *TL* where the cattle program had no contribution to local revenue in terms of interest payments from the cattle. The *PP* District located in Central Kalimantan also contributes to the beef supply to local and regional demands (see Figure 4).

Figure 5 The Beef Supply Chain from Cattle Program



Source: Own elaboration based on the interviews with LGs

Disnak as the facilitator also supports the program with activities aimed at empowerment *Poktans* and their members. The LG comes in to provide training and field school for farmers, EWs and its staffs in order to improve technical ability in cattle management. Some programs are free for *Poktans* and their members (financed by LG), though there are some training activities that should be financed by the *Poktans* and members themselves.

3.2.2 The Agricultural Extension Workers

Agricultural activities in the rural areas (including livestock production) would be effective and efficient if supported by (informal) education conducted by field EWs in agriculture and livestock. Extension can play an important role in organizing farmers into groups and help them adopt new agricultural technology and improve managerial skills and knowledge to effectively participate in *Poktans*. The history of agricultural extension in Indonesia has been tied with the agricultural development history. It started between 1950s and 1960s with the rationale of 'oil drop method' that enables farmers to share information of agricultural innovation to others in the same neighborhood. It was the best way to improve production.

In Indonesia, the extension system has been basically a government administrated system. Only limited numbers of private extensions have been in operation and their existence has not been considered a part of the national agricultural extension system (Harun, 2003). This system has been working on a group approach-basic strategy to implement extension programs. Harun through his report explained that the group approach is effective due to the characteristic group orientation of the Indonesian people. It is explained that *Poktans* are 'considered to be the foundation of agricultural activities' (ibid, p.361). Furthermore, this system is a manifestation of the aspiration of local farmers that should be well documented systematically. Thus, the program has been a benchmark used by field EWs for a certain period to work with local farmers.

In the 1970s, *Poktans* started to grow as the living media of agricultural extension. The EWs were instituted to implement the program of mass guidance on *Poktans*. They were considered as a front-line of agricultural development having direct contact with farmers. In the beginning, the task of EWs was to introduce a new set of agricultural technology to farmers with the scheme of training and visiting *Poktans*. Later in the 1990s, they were transferred to the lower level authorities with their work based on local projects aimed at guiding *Poktans* to participate in the set programs. One successful example of EWs involvement was in the 1980s where Indonesia successfully implemented the rice self-sufficiency program through an extensive program led by the EWs on *Poktans*. **Figure B in Appendix 2** illustrates the organization of *Poktans* in relation to EWs' role in rural areas in Indonesia.

The activities conducted by EWs would enable farmers and their families to develop capacity and or skill to increase productivity. The fact that EWs has not been fully able to empower local farmers has raised an important issue to be addressed with a fundamental understanding. The task of EWs can be seen in **Appendix 3.B**.

Chapter 4

The Common Practice of Cattle Redistribution Program in *TL* and *PP*

4.1 Introduction

The RF scheme was implemented in the 1980s through a program of cattle distribution introduced by Asian Development Bank (ADB) for a period of 5 years. Initially, cattle were distributed to individuals (farmers and non-farmers) in the villages regardless their background and experience of being farmers. This led to a condition where the recipients were in default position. In light of this, LGs made a pre-requisite that a group should be formed among farmers in accommodating the implementation of development program.

This chapter discusses the implementation of two different types of modality of cattle program in *TL* and *PP* District. It describes how modality of hybrid and common goods came about, what are the major difference between two modalities and the main reason of choosing and implementing a particular modality in *TL* and *PP*. Finally, since the *Poktans* are the target of this program, their selection and assessment process in the program is also discussed and presented in this chapter.

4.2 Definition of Revolving Fund in Terms of *Cattle Redistribution*

In general, a RF is defined as a fund established for specific purpose to be managed and revolved as a new fund that will be used again for the same purpose. According to *Technical Bulletin No.7 of RF Scheme* (2008), RFs are funds that are lent, managed and rolled out to a community or community groups that aim to increase rural economic activities and employment creation hence promoting local economic development (LED). The form of RF could be working capital, credits from local development banks, and non-grant capital such as cattle and seedlings which help to strengthen the empowerment of micro, SMEs and cooperatives (p.13).

In order to achieve food sovereignty in livestock by 2014, the Indonesian CG has implemented the National Program of *Beef self-sufficiency*, which is based on local resources. In supporting this program, serious action was taken to account on how to increase the local production of cattle. Local production is the main driving factor to increase the beef supply locally hence will contribute to National Program in the long run. In this regard, local production has a strong link with cattle development activities through a program of cattle breeding. The lower the breeding numbers, the slower rate of growth in cattle population and consequently, the local production will not be significantly improved.

In this study, cattle breeding in rural areas of Indonesia are not considered an easy and or cheap activity especially among small local farmers. This type of business is not literally profitable on a small scale because it takes a longer time

than cattle *fattening* business and it **hardly gets access to credit loans from banks**. Since bank loan requires collateral and guarantor, small-scale (poor) farmers do not have an opportunity to access such loans to improve their entrepreneurial activities (Thas & Getubig, 1993, p. 14). As a result, the growth of cattle population is very slow since only a few medium sized farmers are engaging in this business.

Having this background, the CG and LG have initiated a program that has adopted the **microfinance idea** in helping small-scale farmers in rural areas in Indonesia. CR (**Appendix 3 E.2**) has a long history of implementation to promote LED and supporting community empowerment. This program targets poor farmers that are engaged in and working as a group. The reason is to sustain the program through “social collateral” that establishes through borrower’s engagement in group membership. Unlike the real meaning of collateral, it helps borrower to minimize the risk of default through sanction applied in the group and peer enforcement (Rankin, 2002, p. 12).

Cattle Redistribution: Case Study of *TL* and *PP*

Cattle development program is a derivative program of beef self-sufficiency implemented in 2002 focusing on cattle deployment and development in rural areas in Indonesia. The objective of this program was to establish a breeding area (a farm) so as to promote the role of livestock (particularly cattle) in improving LED. In addition to this, it aimed to optimize and or leverage local resources in order to increase cattle population and production, farmers’ income and cattle farming community empowerment (District Regulation of *PP* No. 50, 2009). The implementation of CR at the local level has been regulated by a local Act and the local head.

In supporting Cattle development program, LGs have introduced a program known as CR. CR is a system of cattle dissemination conducted by the government through the provision of loans in the form of cattle to local farmers. The principle of the CR is that LGs distribute cattle to selected borrowers, in this case *Poktans*. Those borrowers are obliged to return at least one of the offspring from the first pregnancy with the aim of redistributing it among members of group or other groups in the same location of distribution (*Contract agreement of CR*, 2011). In *TL* District, the principle applied is different with that applied in *PP*. The borrowers are also entitled to return 35% of the cattle cost (similar to interest rate) to LG that is claimed to be a contribution to the internally generated revenue (IGR). In addition, the idea of CR was adopted from microfinance scheme in the form of a RF.

4.3 What is ‘Modality’?

Modality is a term used in this study to refer to the type of RFP implemented based on management of programs in Indonesia, both at local and national level. According to Technical Bulletin No.7 of RF Scheme, there are three types of Modality of RFs which are:

- a. RFs process and management being entirely controlled by governments,
- b. Funds not returned to governments, but they would monitor the implementation process of the program;

- c. The whole process of RFP being fully entrusted to the communities and groups without intervention from governments.

Modality 'a' and 'b' are commonly implemented at the local level financed by the LG. On the other hand, modality 'c' is categorized as a form of a *gift* in which the fund is managed and revolved based on group rules. The idea was adopted from microfinance, which provides a small loan to the poor for income generating activities to take care of themselves and their families (Abdullah, et al., 2011, p. 126). It is also supported by capacity building programs and supporting services. In practice, this type of modality is mostly implemented by the CG to small scale farmers in rural area.

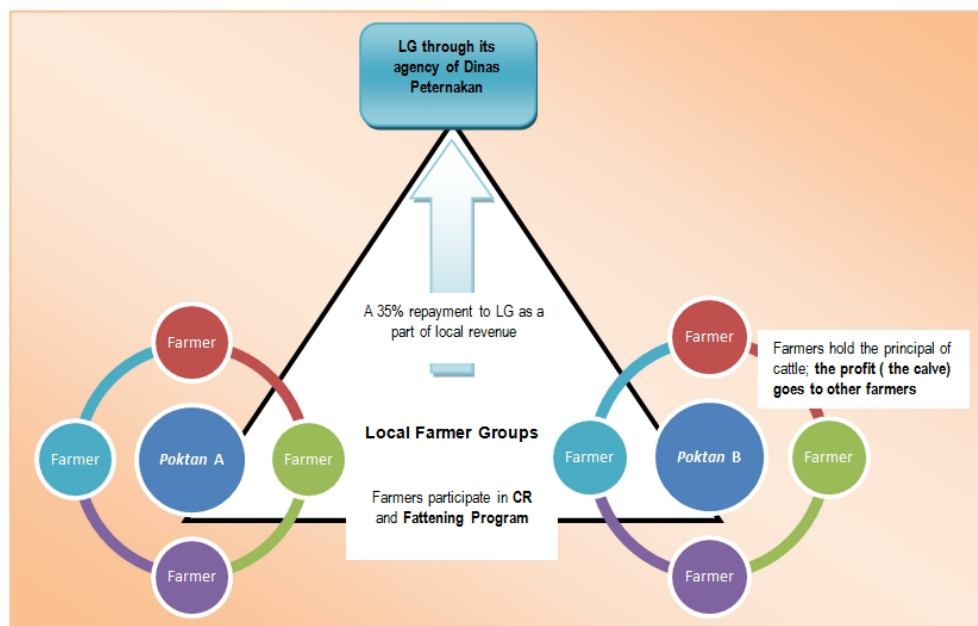
In this study, modality refers to the CRP implemented by LGs. The first form of modality implemented in *TL* is categorized as *Hybrid* in which the principal (the cow) is held by the farmers (i.e. *Poktan* members) and the farmers are obliged to repay 35% of LGs. In *PP*, the modality implemented is a type of *Common Goods*, (which is cattle in this case) raised by farmers and revolved among members of the group. The principal of cattle is redistributed among farmers in the group and the profit (calf) goes to farmers.

4.3.1 Modality of Hybrid: Case of Cattle Redistribution in *TL*

The *TL* District implemented a RFP of CR in the form of a hybrid modality. This type of modality is a combination of the loan and gift type in which farmers are subject to 35% interest rate and a return of one offspring of cattle. In return the cattle principal will remain with farmer to be owned.

The principle applied in the *hybrid* model is that LG distributes cattle to *Poktans* in which each member is legally bound by an individual contract with the LG. Members have to comply with certain obligations stated in the contract in order to alleviate the risks (**Appendix 3 C**). Figure 5 illustrates the scheme of *Hybrid* modality implemented in *TL*.

Figure 6 The Hybrid Scheme of CR in *TL* District

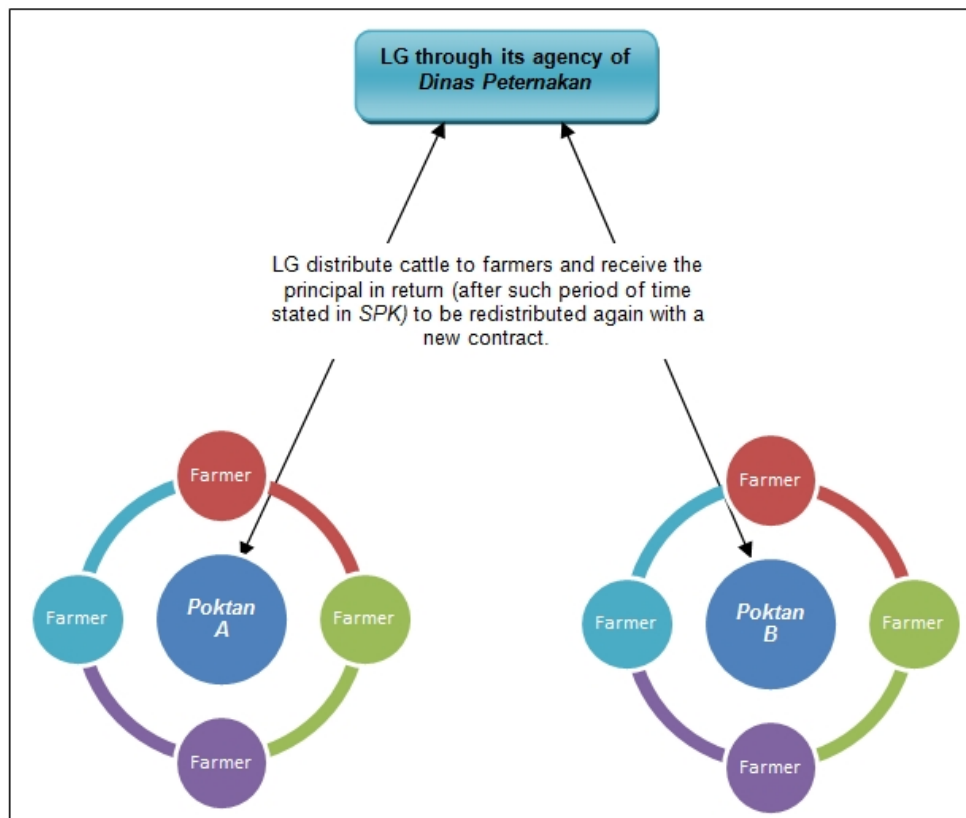


4.3.2 “Common Goods”: Case of CR in PP

The PP District is another area that has been involved in the CRP under the Province of Central Kalimantan. In 2003, PP became a separate district from *Kuala Kapuas* District and separately implemented CR to promote LED and local farmers’ empowerment. The modality implemented in PP was common goods¹⁰ in which the principal of cattle was redistributed among members in the group or to other groups with the LG handling the redistribution process. In return, farmers have been entitled to profit which is basically the calf and no interest rate is applied under this scheme.

This is an individual contract where farmers are legally bound with their obligation clearly stated in the agreement with the LG. However, the individual’s liability will affect the group as a whole. For instance, if one or two farmers do not perform well in raising their cattle, others will suffer by not getting the principal on time. Figure 6 illustrates the scheme of CR implemented in PP. Unlike the previous scheme, there is no interest rate applied and the agency revolves the principal to other members in the group or other groups.

Figure 7 The Common Goods Scheme of CR in PP District



Source: Own elaboration based on the data analysis and contract agreement between *Disnak* and farmers in PP.

10

All members participating in the cattle program are subject and bound by certain obligations and responsibilities attached to the contract (**Appendix 3 D**). Therefore after the second pregnancy (with reference to the preceding point), the farmers are required to return the principal of cattle to *Disnak* in order for it to be redistributed. In this case, the previous principal would be revolved to other farmers in *Poktan A* or to *Poktan B*. The administration and decision making in this regard is solely by *Disnak*.

4.3.3 The Screening Process of Poktans in Receiving Cattle

The screening process of *Poktans* is done by a screening team that is formed by *Disnak*. This team is also working with EWs. The aim is to assess the ability of *Poktans* to manage cattle and to recommend which *Poktans* are qualified to participate in the RFP. Finally, LG is able to give guidance and assistance to *Poktans* receiving RFP based on that assessment.

The methods used in this process are semi-structured interview and questionnaires. The interviews conducted with selected *Poktans* in this case had completed the administration as a preliminary of selection process in order to identify the ability of *Poktans* that proposed to be a part of the program. The criteria of the administration process were follows:

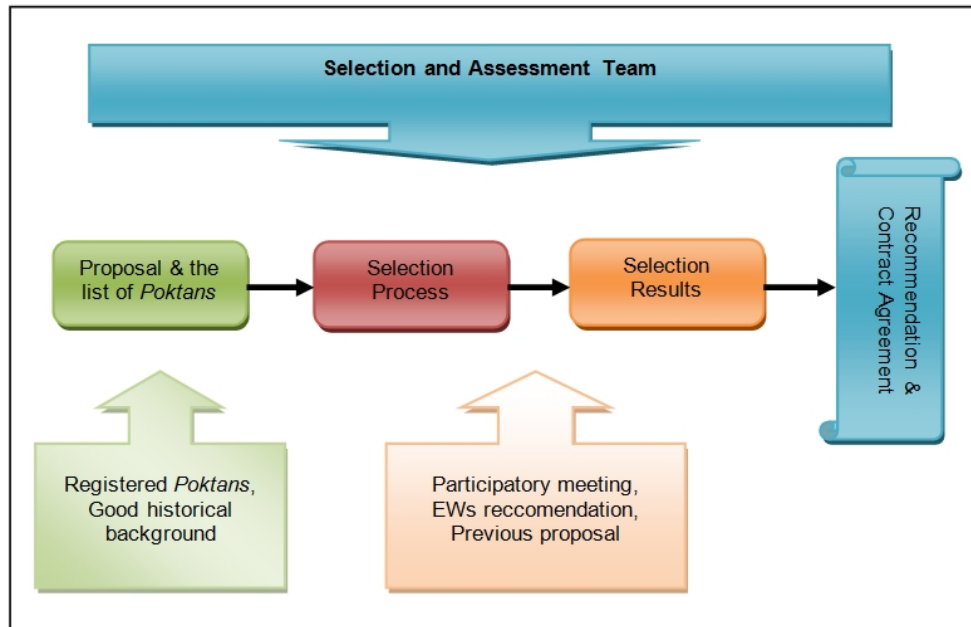
1. High responsible *Poktan*, evidenced by the *Poktans'* record
2. *Poktans'* registration under EWs in that area
3. Recommendation of the *Poktans* by the village head

For the purpose of potential *Poktans* selection, the following five main criteria are used:

1. Organization: organizational structures and articles of association and By-laws (group rules and regulations, administration board, regular meeting, etc)
2. Working Capital: members' contributions (monthly), yearly contribution, savings, other contributions/fees.
3. Networking: within members, with other *Poktans*, LGs and private sectors in that area.
4. Potential areas: availability of feeds, artificial insemination service coverage, range of technical services.
5. Technical aspects: animal health and feed, the availability of cages (individual or communal cages), reproductive management, the experience of local or national tournament of *Poktans*.

Furthermore, the selected *Poktans* will be grouped together to be given more information about current regulations on the CRP. At such meetings, the *Disnak* and the teams open space for discussion and participation from local farmers regarding to the procedures of the program. This is means of minimizing the risk of misinterpretation and default in the future. However, the participants have the option of resigning if the contract terms are burdensome. Figure 8 describes the selection process of *Poktans* in receiving RFP in *TL* and *PP*.

Figure 8 The Selection Process of *Poktans* Receiving RFP



Source: Own elaboration based on interviews with *Disnak* in TL and PP

Chapter 5

The Outcome

5.1 Introduction

This chapter analyses how implementation of modality produces different conditions for the success of *Poktans*. The idea of group lending under micro-finance scheme has been adopted to implement modality of Hybrid and Common Goods, in which farmers are encouraged to work in groups in order to participate and qualify in government's programs. Along with the group lending scheme, a concept of social collateral was introduced as a part of SC, which thrives on trust, norms and network (TNN). TNN are the most common elements of the definition of SC used by Putnam (1993) and Coleman (1990). SC refers to social relations between and among actors that will improve productivity (Coleman, 1988). It lowers the cost by re-organizing people to cooperate. Trust comes from 'norms of morality and personal sources embedded in social networks' (Lyon, 2000, p. 664). Two modalities in this study show that SC existed in *Poktans* from the formation to the implementation of the Cattle program they are engaging in.

5.2 Social Capital and Modality Implementation

The high rate of SC is characterized by a sense of trust, the high density of networks and strong community ties, the high frequency of shared activities in the community and compliance with the norms to achieve mutual expectations and avoid opportunistic behaviour. Lyon claims that institutions' adoption of SC should be based on the nature of social relation and norms (Lyon, 2000). Table 4 shows the existing of SC in *TL* and *PP* which are represented by *Poktans*. It proves that SC is embedded in social structures; an attribute of the social structures to which any individual belongs (Coleman, 1990).

Table 4 Elements of SC on Modality

	POKTAN	N	Mean	%	Std. Deviation	%
TRUST	TL	24	3.2431	65%	0.2833	6%
	PP	24	3.0521	61%	0.3439	7%
NORMS	TL	24	3.3299	67%	0.3739	7%
	PP	24	3.4511	69%	0.2929	6%
NETWORKS	TL	24	3.3819	68%	0.6538	13%
	PP	24	3.2569	65%	0.6389	13%

Source: Descriptive analysis of SPSS and Excel

The mean value showed in the table is the average percentage of TNN on each *Poktan*. The data samples used in this analysis involve 6 *Poktans* that participate in CRP using the **Hybrid and Common Goods model** in *TL* and *PP* respectively. The sample was made up of 24 respondents from each modality. Further analysis will be based on TNN to establish the conditions under which the *Poktans* achieve different level of success in modality implementation.

5.2.1 The Element of Trust and Network

The element of trust plays a major role in transaction cost reduction, especially in monitoring and collecting information (Lyon, 2000, p. 664). In our study, the *Poktan* formation stage involves a rational action based on trust. This element facilitates coordination and cooperation (Putnam, 1993, Coleman, 1990) that helps members to minimize risk and maximize access to other resources through personal relationships with others. Pretty & Ward (2001) supporting Putnam's theory (1993) define trust as lubrication for people to cooperate, which alleviates the cost of transaction between them and leads to access to more resources (p. 211).

Our data of *Poktans* in TL shows that the average percentage of trust is 65% (Likert scale 3.24 of 5) while in PP its 61% (likert scale 3.05 of 5). The value of networks is 68% (3.38 of 5) and 65% (3.25 of 5) in PP and TL respectively. A statistical t-test used to examine the difference of 4% of trust in two study areas. The result shows that the probability of trust in the two areas is 0.041 (less than 0.05). This shows that the difference level of trust in *Poktans* receiving hybrid and commons is significant. On the other hand, the results denote that there is no significant difference in terms of the network dimension (only 3%).¹¹

The key dimensions contributing to this analysis are the high levels of trust among members that stayed the same neighborhood for such a long period, who share the same feelings; since being in the resettlement area has created such a strong bond among them. This is known as simple trust based on **existing networks** that is universal as a result of day-to-day interaction (Lyon, 2000, p. 673). Networks also increases the dimension of trust when people 'are networked with one another in multiple ways and are within institutions that facilitate the growth of trust' (Ostrom & Ahn, 2003, p. xvi). Therefore networks lead to the creation of trust among people in the group and others.

One example in our study is a *Poktan*, called **SUKA MAJU**, which is a group of members from the same ethnic (**Appendix 3 E.3**). Most of the members are families and relatives that have been in PP since the first generation. Latif said:

"We can't help it, we have stayed in this place since the 1970s... at least we obtain more benefits from being part of Poktan"

HARAPAN BERSAMA in TL which claims that their formation was influenced by other groups:

"We organized farmers into a group watching the performance of Tunas Harapan (neighborhood Poktan, established in 2006). The members given lots of benefits and are able to participate in LG programs, such as a cattle program. We also get assistance from EWs on how to form the group. In practice, we learn more about cattle management from Tunas Harapan"

Secondly, members are also united with EWs due to intensive meeting time. This creates what Lyon calls **working relationship networks' which** is also built on trust in which each member holds and collect different infor-

¹¹ The result shows that probability of networks on two areas is 0.5 (Significant = t statistic (0.05) > prob. Value)

mation (2000, p. 671). In our study, this networking has existed through continued working relations between *Poktans* and EWs. In *TL*, workers' involvement was from the formation of day-to-day activities in agriculture and live-stock. 'The continued interaction allows each party to collect information on the capabilities of the other and build up confidence' (ibid). EW of SARI MURNI asserted:

"We function as a bridge between Poktans and LG programs. Our duty is to support the group to graduate from a dependent to a mature group of farmers ¹² and to be able to survive even in the difficult times. Therefore, we are required to have yearly-working plans to support them. It seems we interfere much in their activities"

MARGO MULYO II' members said:

"We conduct monthly meeting with EWs to discuss the issues/problems on cattle management. She is really helpful and she always comes whenever we need her"

However, the network of working relationships in *PP* does not generate trust with EWs. As discussed in chapter 3, farmers have lost their interest in extension programs due to unavailability of workers in the field. Hayan said:

"Their commitments are questionable... they are only focusing on Poktans that are engaged in the programs. Look at us, we are not passive but EW told me so. She should have helped us to be more creative instead of waiting for LG programs"

This shows that EWs perform better in Hybrid model than in Commons due to availability of incentives. This will be discussed further on the self-selection and screening process.

Finally, trust is also built between *Disnak* and farmers. This gives *Poktans* an opportunity to get more cattle in future. Lyon (2000) states that interaction makes people tend to maximize access and minimize the risk rather than seek more to maximize the return (p. 664).

5.2.2 Joints Liability and Sanction based on Norms and Trust

The value of norms is 3.33 and 3.45 in *TL* and *PP* respectively. t-Test shows that probability value of norms is 0.218. This indicates that there is no significant difference of norms in *Poktans* receiving Hybrid and Commons. However, the interviews produce different results with regards to norms. The key dimension of norms in this study is that *Poktans* allow peer monitoring to ensure that the program is well implemented and others benefit from their participation. Norms give people a guarantee to invest in group activities such as group lending, knowing that everyone will follow the rule of the game (Pretty & Ward, 2001, p. 211). SUMBER MAKMUR explained that they do help each other to repay IR to LG through a lottery system.

Moreover, available sanctions in *Poktans* are part of default strategies that used to prevent members from being opportunistic. Lyon defines sanctions as the threats and social pressures in the group that restrict people to participate in wider networks subject to obligation (Lyon, 2000, p. 665). In the case of *Poktans* in *TL*, they allow application of **sanctions** in the group. For instance,

¹² Poktan *Pedati* means *Poktans* that fully depend on EW; Poktan *Sejati* is a term used to classify a mature and independent Poktan.

regular meetings are a platform where all members gather together to discuss all matters of cattle management. Members agreed to participate and contribute their time towards meetings and they agreed to be sanctioned, and pay certain *Rupiahs*, to the group if they failed to do so. Norms define what can be done and cannot be done. They build and maintain personal trust (ibid). The effect of the value of norms here is reflected in the high level of awareness of being *Poktan* members. The farmers' commitment is shown through attending regular meeting, participating in group activities and making contribution to the groups.

Norms do exist in *PP*; indicated by the mean value of 3.45. Members' participation in the group is based on trust. They claim that material sanctions are not necessarily applied in the group. It is just a matter of trusting and being trusted. Moreover, they believe that members will not disadvantage others in the group based on norms of reciprocity. It allows members to assume away risk (Hodgson, 1988, p. 167) by knowing that others would do the same thing as they do. Norms are, therefore, used to build personalized trust among members. Moreover, Platteau (1994a) links norms to 'historically rooted cultural endowments' that are part of socialization process in families, schools and religious institutions (Lyon, 2000, p. 666).

During our interview members realized that they were bounded by other people's liability. Van Tassel (1999) posits that **group lending** represent joint liability. Stiglitz focused on the benefit obtain from this scheme. It can enhance members' welfare and reduce moral hazards (Stiglitz, 1990). *Disnak* asserted that:

"Cattle program arrangement is an individual contract based on group performance"

If one or two members failed to comply with their contractual obligation, the whole group would have defaulted and might lose future benefits of access to cattle program. Commons model allows an individual contract where each member is liable for their own agreement. Moreover, the principle of Commons is that each member is obliged to manage and raise the principal cattle that subject to procreation. Cattle are considered as common goods, which belong to LG. In return, farmers receive the calf as their asset.

In the Hybrid, members are obliged to pay an interest rate of 35% and return a calf to LG. If the principal is not well managed, the borrowers would not able to generate a profit (the calf) on time and still be obliged to repay. Moreover, if the borrowers are careless and the principal cow dies, they will still be liable for repayment and returning the calf.

5.3 *Poktan* and Modality Implementation

In our study modality targets *Poktans* in which each member is bound by an individual contract with *Disnak*. It targets poor farmers in rural areas, who cannot offer any collateral. Therefore, farmers are encouraged form groups and select their own members in order to reduce adverse selection and social problems in the repayment process (Ghatak, 1999). In order to achieve the high rate of repayment and ensure the groups' continue existence, self-selection of group members at the formation stage is key (ibid, p.28). The following discussion will analyze both modalities in relation to 'Joint Liability' and 'self-selected

members' of *Poktans*, followed by screening monitoring conducted by LG's agencies and incentive systems attached to the scheme.

5.3.1 Hybrid vs. Common Goods Approach: Joint Liability Scheme

The Hybrid requires a group arrangement in which each member is jointly liable for others' loan. The poor who lack collateral are re-organized to form a small group where members are held 'jointly liable for each other' debt (Ghatak, 1999, p. 28). Besley & Coate (1995) describe joint liability as the key feature of group lending (p. 2). They examine the impact of peer pressure on improving the borrowers willingness to repay the loan and social sanctions¹³ (ibid, p.3).

In this model, transaction costs of group formation and monitoring the process are transferred to the group. Potential members who have known each others form a group of farmers and obtain mutual obligation of ensuring repayment. Tedeschi (2006) explains that 'each member has the incentive to monitor others' behavior that may negate moral hazards in the process of loan repayment. At the same time, these lower the monitoring cost of the lenders (p. 85). Besides, *Poktans* that received cattle have been selected through a process conducted by the LG agency as an incentive to maintain and sustain the program. Therefore it should result in better performance of the groups, since the formation of the group represent 'social collateral'.¹⁴

Moreover, the participants are required to revolve at least one of their cow' offspring within four years and repay at least 35% interest rate to *Disnak*. These principles enable *Poktans* to create peer monitoring through regular meetings that are held once a month, where members and workers gather. In practice, each member will review their own progress in relation to CR followed by rotating credit (Appendix 3). During the meeting, the secretary of the group will announce the members who have not repaid the interest rate, based on a letter sent by *Disnak*. Group members keep informed about the progress of others and are able to 'push' fellow who seem to be slow in the payment process. In this case, joint liability has direct influence on the monitoring process, which Conning refers to as *endogenous monitoring* activity (Conning, 1996, as cited in Van Tassel, 1999, p.4). Based on this, EWs also benefit from their involvement in the group activities. They obtain information that is used to create a dynamic incentive for the group. If the group performs well in the repayment, members will be able to apply in the future cattle program and vice versa.

IR payment created such a positive incentive to both LG and *Poktans*. If *Poktans* were able to repay and return the profit of cattle, they would be considered in getting more revolving cattle from other *Poktans*. TUNAS HARAPAN is one example of *Poktan* that present '**dynamic incentives**' in 2007, 2008 and 2009. Tedeschi (2006) defines this as a 'repeated interaction between borrower and lender' (p. 85). The borrowers would avoid risks if they expected future access to credit. LG agency visits and monitors *Poktans* based

¹³ The loan providers: governments, private sector and bank are hardly seen to obtain such a sanction against delinquent borrowers especially the poor involved in the group lending.

¹⁴ Review of the existence of social collateral through joint liability can be found in Besley & Coates (1995), Van Tassel (1999), Vigenina & Kritikos (2004) and Tedeschi (2005).

on the incentive of interest rate. As explained in chapter 3, this IR payment is a contribution to local revenue. If *Disnak* would be able to reach their repayment target from this program, their performance would affect their future budget allocation.

The **Commons** model allows an individual who is member of a *Poktan*, to participate in the cattle program. Each member is legally bound by an individual contract, which directly affects group performance. A *Poktan* would be in default if all members failed to revolve the principal cattle. In this sense, joint liability creates a positive incentive to the group in terms of repayment through peer monitoring and sanction (Besley & Coate, 1995, pp. 1-2). Commons also influences farmers to form new groups even though they have engaged in other *Poktans*. **USAHA MANDIRI** is a derivative of PANCA KARYA IV (Est. in 1950s with 30 members) that participated in 2010 with 17 members. It is explained that the basis for the new formation was the information held by each member. Some of the old group members were not mutually bound with each other and peer monitoring was not well implemented. Thus, the new formation was created.

Cattle are managed as common goods in which the principal cattle are re-distributed among members after realizing profit (calf) to the previous member. This is expected to be an incentive for members to sustain the program. If the owners were careless, they would not get a healthy calf in return. At the same time, other members would also be affected by the longer waiting time before getting the cattle. If the principal is dead or lost as a result of negligence of one or two members, the owners would not get any profit and the others including LG would lose the opportunity to get the cattle. However, the holders of principal hardly cooperate with the rule. Instead of revolving the principal cattle, they distribute the calf. They assume that the cattle from LG are a superior breed.

Unlike the Hybrid, regular meetings are hardly seen as part of the incentive system in the Commons model. Most groups that we interviewed state that they infrequently attend the meeting. There is no sanction applied for not attending the meeting. EWs are not really involved in *Poktans* activities, unless *Poktans* are engaged in more than one activity provided by LG. In practice, a *Poktan* represents peer monitoring in the group but does not work well in the implementation of the Cattle program in Commons model.

5.3.2 Self Selection of Poktans Members: Representation of Trust, Norms and Network

The concept of microfinance is to develop a credit and saving system for the poor who lack collateral, representing high risk. The formation of *Poktans* acts as social collateral where all members are held mutually responsible for the group (Vigenina & Kritikos, 2004, p. 156). It means that members will monitor each other in the repayment process in order to minimize the risk of defaulting. In addition, the formation of *Poktan* also reduces the monitoring costs for the lender (Tedeschi, 2006, p. 85), which in this case is LG.

Based on our interviews, *Poktans* explained that farmers who are from the same neighborhood were encouraged to form *Poktans*. The self-selection of group members takes place during the formation stage. One *Poktan* in TL, **TUNAS HARAPAN**, claims that in the formation stage, farmers who are

willing to participate in the cattle program would attend the meeting and decide whether to be part of group:

"We are not really selecting the group members, but we come to meet and decide to form a Poktan.... At the beginning there were 35 farmers in the meeting, at the end we formed the group that consisted of 30 members"

Ghatak (1999) posits that the self-selection scheme is very crucial during the group formation. Group performance may end up being compromised if one or two members do not contribute their dues to the group. He adds that the self-selected scheme represents group's collateral (pp. 28-29). In the case of **TUNAS HARAPAN**, the remaining members 30 members were aware of the obligations attached to the group and the program. The five farmers were also aware of those, but unwilling to participate since there is a risk of defaulting in IR payment. This shows that the self-selection process creates an incentive for people to choose whether to be part of the group. This will alleviate the chance of adverse selection problems.

In the case of Commons model, we found more '**homogenous self-selected groups**' than in Hybrid. In this case, farmers who have the same ethnic background dwell in the same neighborhood or village. Huppi and Feder (as cited in Ghatak, 1999) state that group formation based on 'the individuals belonging to the same village... have tended to be more successful than others' (p. 28). In fact, *Poktans* performance in *PP* is not really influenced by 'homogenous' self-selection. The majority of members in both study areas are men. In *PP*, we hardly see men around during post-harvest time. They tend to have seasonal agricultural work and after harvest time they look for other temporary job in urban areas. The logic behind this is 'security through diversification' (Berner, et al., 2008, p. 383). In this case, most members who participate in CRP are not fully dependent on the livestock activity. They consider cattle as a saving in time of emergency. In *TL*, the members are also engaged in additional activities like composting. They use the compost for planting or sell it as a part of individual or group income. During the waiting period, they could do other activities to generate more income.

In regards to the group formation, the wives are also involved in cattle breeding and feedlot, but are not registered as members. Commons model allows women taking over the work in cattle feeding and breeding, while men are out of the village. For instance, **USAHA BERSAMA**, located in *PP*, the women take care the cattle for the whole seasons. During the field work, we visited these *Poktans* and met the wives instead. All men were outside town due to high rate of construction jobs in urban areas. **SEDIA MAKMUR** showed the same condition. On the other hand, **MARGO MULYO II** is one example of a successful group of women in *TL*. They were indirectly involved in the cattle program since 2004 as a result of low participation of the former group (**Appendix 3 E.4**). The formation is bound by existing networks based on trust and norms established in the neighborhood. Lyon notes that such trust is systemic in community (Lyon, 2000, p. 673). It is a lubrication of the action to co-operate. 'It reduces transaction costs between people, and so liberates resources' (Pretty & Ward, 2001, p. 211). Thus, a farmer has the confidence to invest their time and contribute money to the group by knowing that all members will do so. This gives an incentive to the group that members are able to trust each other to act as expected.

5.3.3 Screening and Monitoring Process

Self-selection is supposed to reduce the monitoring cost of LG. But in the case of Hybrid and Commons model, LG agencies are still doing screening and monitoring during program implementation. LG agencies would assist in cattle breeding, feeding and reproduction. Those include providing skills to farmers for improving members' ability in cattle management. Increased levels of education and employment opportunities would increase incentives to participate in the group (Christoforou, 2003). LG's expectation is that *Poktans* be more independent through skills improvement in agricultural activities.

Moreover, most of microfinance literature focuses on the transaction costs that result from asymmetric information. In this case, LG could reduce screening and monitoring costs through groups' formation and peer monitoring system (Ghatak, 1999, Vigenina & Kritikos, 2004, Besley & Coate, 2006). In this study, *Disnak* conducts the selection process of *Poktans* and monitors the program implementation. In the screening process, EWs hold a lot of information about *Poktan* and its members. Their recommendations are really priceless in this process.

"We were involved from the beginning of the formation process... we also involved in their activities"

The result in *TL* shows that EWs do cooperative in the screening process. They are responsible for *Poktans* who participate in program as a result of their recommendation. In the case of *PP*, EWs are hardly seen to get involved in *Poktans* activities, due to the low number of workers in the villages. We found that *Disnak* work hard in the selection process, the selection team conducted visits to and assessment of the applicants of the program. Here we may note that the self-selection scheme, as discussed by Ghatak, would still create high transaction cost to lenders.

The following table 5 summarizes the outcomes of the Hybrid and Commons model implementation in *TL* and *PP*.

Table 5 The Outcomes of the Hybrid vs. Commons Model

Items	Hybrid	Common Goods
Responsibilities	<ol style="list-style-type: none"> 1. IR payment 2. Cattle feeding and calf procreation 3. Revolving cattle (the calf) 	<ol style="list-style-type: none"> 1. Cattle feeding and calf procreation 2. Revolving cattle (cattle principal)
Characteristics	<ol style="list-style-type: none"> 1. Old <i>Poktans</i> in transmigration areas 2. Majority of men. 3. More <i>Poktans</i> with a high skill in cattle breeding. 4. Engaging in agricultural activities e.g. plantation and composting during post-harvest time. 	<ol style="list-style-type: none"> 1. Old <i>Poktans</i> in transmigration areas. 2. Majority of me → the wives do the feeding 3. Traditional <i>Poktans</i>. 4. Men are away the village during post-harvest time. 5. lack of spatial proximity with the capital city.
Type	Group contract, all members are jointly liable for repayment.	Individual contract, a group is jointly liable for repayment
Trust	Trust embedded in the existing network .	
Norms	Strongly identified the same set of social norms in the neighborhood.	
Networks	The existence of working relationship between <i>Poktans</i> and EWs is built on trust basis.	Not that strong. Some of them questioning the role of EWs.
Peer Monitoring	Group meeting with EWs on monthly basis → save TC of LG agency	Not compulsory → increase TC of LG and group
Screening Monitoring	Dinas and EWs	Dinas and Ews
Sanction	Applied (as part of default strategy) → To access more resources in the future.	Not compulsory. 'It is just a matter of trust and being trusted'
Incentive	To access more resources in the future through repeating interaction with LG agencies.	

Source: Ownn elaboration based on field work in *TL* and *PP*.

Chapter 6

Conclusion

There have been many discussions about the need to build such a proper design of CRP at the local level in Indonesia, which is set to improve small scale farmers through cattle breeding in order to increase local beef production. This study has attempted to contribute to the understanding of TNN, which are the most common elements that are attached to the definition of SC used by Putnam (1993) and Coleman (1990), and incentive system on group lending scheme in which self-selection of members and screening process of borrowers takes place, through empirical studies of modality implementation on *Poktans* in *TL* and *PP*. Attention given to the self-selection process of members at the formation stage solved the problems of adverse selection and moral hazard (Tedeschi, 2006, p. 85) with expectation that modality be well implemented. In this sense, trust can be based on day-to-day interaction (that is existing networks and working relations) in which informal institutions and traditions are embedded. A *Poktan* holds the rationality of group lending in which each member is held ‘mutually responsible for all credits of the group’ (Vigenina & Kritikos, 2004, p. 157). A *Poktan* is an institution of local farmers where each member is jointly liable for the others’ obligation in the cattle program built on trust basis. One example of this are the regular monthly meeting to monitor the progress of program and credit rotating to ensure that all members participate in the group.

The research findings show that there are certain conditions that need to be satisfied before modality is implemented. Since *Poktans* represent SC through “social collateral”, which is a main requirement to access the resources (cattle), the group arrangement becomes an important consideration in the design and planning of modality. Understanding TNN and their links with the group is very important in understanding how members improve their awareness of being mutually responsible for the groups. However, we have not attempted to measure the impact of TNN on *Poktans*, which are engaged in cattle program but rather managed to analyze/identify those elements as essential conditions that produce different result (including incentives) on modality implementation.

The element of **trust** plays a major role in transaction cost reduction, especially in monitoring and information collection (Lyon, 2000, p. 664). The formation in both study areas are based on trust that exists within the *existing network* among farmers in the neighborhood. In this case, modality has influenced farmers to form groups based on the **self-selection** scheme, which has created such an ‘intimate knowledge of each other’s activities’ (Bhatt & Yan Tang, 1998, p. 626). On the contrary, the results for the case of Commons showed the existence of more individual contracts than group arrangements. Poktan members act individually and they are hardly involved the group meeting. We saw that joint liability does not affect the awareness of members as a group. This is in contrast with the idea of how this concept may create a group monitoring system that reduces moral hazards (Varian, 1990). Our study found that the Hybrid modality represents a group contract where all members are jointly liable for repayment. The formation is based on self-selection process

that would eliminate unexpected members through the application of group's rule. On the other hand, the program engagement was based on a screening process conducted by *Disnak* that resulted in default risk reduction. In this study, both schemes have incentives to the LGs and Poktans to sustain the program and achieve better results in modality implementation as well as improving the well-being of members. Risky Poktan would be eliminated through the second process unless they have commitment to perform better or improve under workers' guidance so as to be involved in the next program.

The **Hybrid** model presents the existence of strong network of a *working relationship* with EWs that generate a **dynamic incentive** to access more resources in the future considering that information held by LG agencies becomes available to farmers through the group arrangement. Networks also increase the dimension of trust when people 'are networked with one another in multiple ways and are within institutions that facilitate the growth of trust' (Ostrom & Ahn, 2003, p. xvi). Furthermore, IR applied to modality creates an incentive that results in intensive monitoring (including assistance and regular health control) from LGs to ensure that *Poktans* are responsible for the repayments and keeping the program sustainable. The **Commons** model allows farmers at individual capacity to engage in the cattle program. It explains that individual farmer remains in the *Poktan* to present social collateral to the LG. This is an incentive for farmers to be in a group in order to maximize their access to some resources, cattle, and minimize the risk of transaction costs. Lyon states that interaction makes people to think more of how to reduce the risk than increase the return or profit (Lyon, 2000, p. 664). However, the working relationship between *Poktans* and EWs under the Commons model does not generate trust with the EWs. Farmers are often questioning the commitments of EWs in the field.

Norms give people a guarantee to invest in group activities such as group lending, knowing that others will follow the rule of the game (Pretty & Ward, 2001, p. 211). This refers to 'norms of reciprocity' or trust-norms creation. The existence of peer monitoring in a group is a part of rules of the game that give an incentive to members to avoid default risk. The **Hybrid** model allows **regular group meetings** to be an institution of a *Poktan*. This is also part of the self-selection process in which farmers are required to participate by attending the meeting. If they fail to do so, they would be excluded from the group. Sanction is also a matter that would have been approved by all members at the beginning of the formation. It also created personalized trust by ensuring everyone complies with the rules. Available sanctions in the groups are part of *default strategy* that is used to assure members are stopped from being opportunistic (Lyon, 2000, p. 665). In our study, group arrangement were also based on the rule that had been approved collectively by the group. This condition is supported by Lyon who defines social norms as an 'umbrella' that covers the process of social relation formations and institutional forms (Ibid). Furthermore, farmers take responsibility of IR repayment, cattle feeding and procreation. The IR payment and the revolving calf are part of the rule of game. Each member has to ensure that others fulfill their obligation. Those will be positive incentives to the group provided all members were able to manage the risk attached to them. In terms of working relation networks, the formation of new *Poktans* shows that to the group that has been successful in managing cattle in the neighborhood with the guidance of EWs.

The Common goods model creates an incentive for individual rather than groups. This is shown through the formation of a new group under an old one. In this case, there is a need to understand what keeps Poktans cooperating in this area. Is it just a simple trust resulting in *existing networks* among farmers or it is simply an incentive produced by modality? We found that there are difficulties in examining the trust and norms relationship in the formation of the groups, but we managed to obtain an understanding how trust is produced in this model. Here, existing networks reflect trust that encourages farmers to form a Poktan. They assumed that a\the Poktan will make information available to members. In fact, members prefer to return the calf than to redistribute the cattle principal as required under the scheme. This model is an interest free loan that is expected to lessen the risk of default in IR payment. The only obligation is cattle procreation and redistribution. The cattle are supposed to be a common goods in which all members have the right to control and manage together in order to obtain a better return (the calf).

Moreso, the **Commons** model faces an issue of group institutions (peer monitoring and sanction). Cattle are kept as a member individual's asset instead of commons. A detailed analysis of norms and sanction shows a different result with the Hybrid model. Poktans do not believe in the role of sanction and peer monitoring as well as EWs in shaping how modality is well implemented in the groups. This is shown by the members' are reluctance to attend the meetings with no sanction applied to this behavior for most of farmers. This condition is against the principle of norms of reciprocity where 'norms prevent opportunism in the one off encounters' (Lyon, 2000, p. 676). We refer to this as trust-norms creation in which norms are the basis of building up trust to enforce sanction thereby building trust among members. However, it takes time for trust to be built up hence it is necessary to understand how TNN operate in different groups under similar and or different modality.

To complete all that have been mentioned above, we should pay attention as well to the appropriate **screening process** that is the LG's intervention in modality implementation. The process considered a complex one in order to ensure that cattle delivered to potential *Poktans*. The EWs are also involved in the process as group representatives and source of information to *Disnak*. Their involvement is basically dealing with identifying potential recipients that will alleviate default risk and monitoring costs. The Hybrid model allows LGs to recover the costs through IR payment. This gives an incentive to *Disnak* and other teams to enforce the payment schedule on *Poktans*. On the other hand, the LG and its agencies of *PP* entrust the monitoring process of cattle management to the group by assuming that members of the *Poktan* are held mutually responsible for each others actions. Findings reveal that they do not consider the social context of *Poktans* and institutional issues regarding group arrangement in which farmers act individually in the program and neglect the rational of *Poktans* with regards to group lending schemes.

What then can be done to encourage members to continue in the *Poktans*, identify the necessary support through EWs to evolve to maturity on modality implementation, and to sustain the CRP in order to improve productivity? First, for more bounded between members, the EWs need to gather information about farmers and assist them at the inception stage based on existing network in identifying and recruiting potential members and then support members to participate actively within the group. Second, EWs build such a

working relation with Poktans through transfer knowledge process. It is expected that members share the knowledge and skills among them. Eventually, EWs may encourage *Poktans* to manage these knowledge and skills by documenting and updating them, so the members can access them whenever needed. Third, modality should be designed and planned based on socio-economic conditions of specific areas. It targets at least those *Poktans* with clear bylaws and registered to LGs and not simply assess individual farmers who claims to be Poktan members through screening process. The purpose of this is to assess and identify whether or not they are entitled or they qualify to participate in the program. Finally, the implementation should be monitored to ensure CRP goes as planned. It is argued that such processes would increase transaction cost of LG. Yet LG should realize that some *Poktans* need to be fully assessed and monitored in the program implementation, especially for the new comers. Part of this, the working relationship networks should take to account in creating a space of trust between *Disnak*, EWs and *Poktans*.

A well defined plan and design of modality is not the only factor that contributes to the successful implementation of modality. In this study, we only considered TNN in relation to *Poktans* to contribute to modality implementation in *TL* and *PP*. *Poktans* in this regard are a promising vehicle to implement development programs as well as SC manifestation. When modality is implemented in *Poktans* with low SC, the process of building up trust and creating networks becomes costly hence members tend to hide information and keep it for themselves resulting in low performance of program implementation. In the Commons model, an examination of TNN is essential especially for the new and other derivative *Poktans*. What keeps them cooperating? Is it driven solely by modality? As for the Hybrid model, we need to look further at the network characters based on trust and norms of reciprocity. Subject for further research may broader in around these and other questions: Is dynamic incentive resulting from working and existing relationship or it is simply a form of dependency relationship.

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Appendices

Appendix 1 Tables

Tabel A The Growth of Poktans in TL

	Total	Growth of Poktans
Total Poktans receiving CR (established before 2001)	27	
Total Poktans receiving CR (established after 2001)	28	104%
Total Poktans participate in CR	55	

Source: Own calculation based on *Disnak TL*

Table B List of Poktans formed before 2001 Decentralization Policy in Tanah Laut

No	Poktan and area of distribution	The cattle recipients	The Bulls	The Cows	Poktan Formation	Year of distribution	Note
1	MARGO MULYO	15	15	15	1990	2004	1st Distribution
2	RUKUN SENTOSA	15	15	15	1988	2004	1st Distribution
3	PAGUYUBAN KEBUMEN	15	30		1995	2004	
4	WISMA NUGRAHA	20	20	20	1978	2005	
5	SUMBER KARYA	15	30		1985	2006	
6	RUKUN SENTOSA	15	30		1988	2006	2nd Distribution
7	MARGO MULYO	20	40		1990	2006	2nd Distribution
8	TUNAS BARU	17		34	1989	2006	
9	RUKUN MAKMUR	23		46	1995	2006	
10	HARAPAN KITA	20		40	1999	2006	
11	RELA BAKTI	23		46	1985	2006	
12	SIDO MULYO	15		30	1978	2007	
13	SIDO MAJU	15		30	1998	2007	
14	MADU REJO	25	50		1998	2007	
15	KARYA BAKTI	25		50	1991	2007	
16	SUKA MAJU	15	30		1981	2007	
17	KARYA BAKTI	15	30		1997	2007	
18	JEPON MAS	25		50	1990	2007	
19	SIDO MAKMUR	20		40	1991	2007	
20	MAJU JAYA	20		40	1991	2007	
21	MARGO SARI	23		46	1983	2008	
22	SUKA MAJU	15	30		1985	2008	
23	SARI MURNI	21		42	1987	2008	
24	SUKA REJO	15	30		1986	2008	
25	SRI REJEKI	14		28	1991	2008	
26	TANI SUBUR	22		44	1979	2008	
27	RUKUN SENTOSA	15		30	1982	2008	
28	RAKAT MUFAKAT	10	20		1979	2009	
29	UJUNG DAMAI	10	20		1998	2010	

Source: Disnak Tanah Laut District

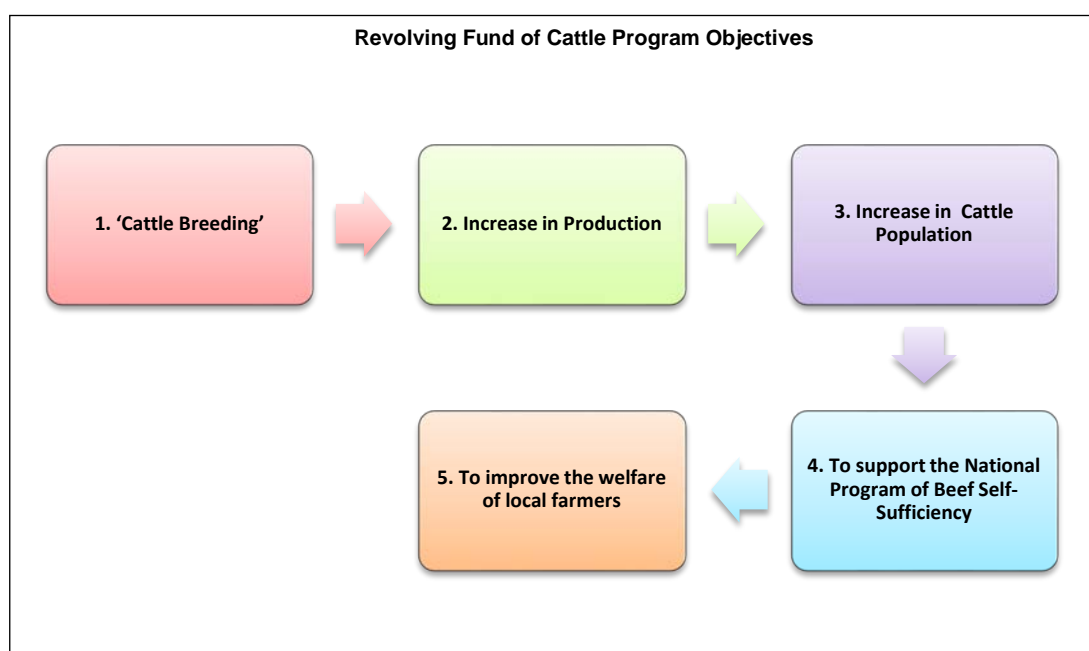
Table C

	Total	Growth of Poktans
Total Poktans formation before 2001 receiving CR	12	
Total Poktans Receiving CR	59	392%
Total Poktans formation after 2001 receiving CR	47	

Source: Own calculation based on *Disnak TL*

Appendix 2 Figures

Figures A

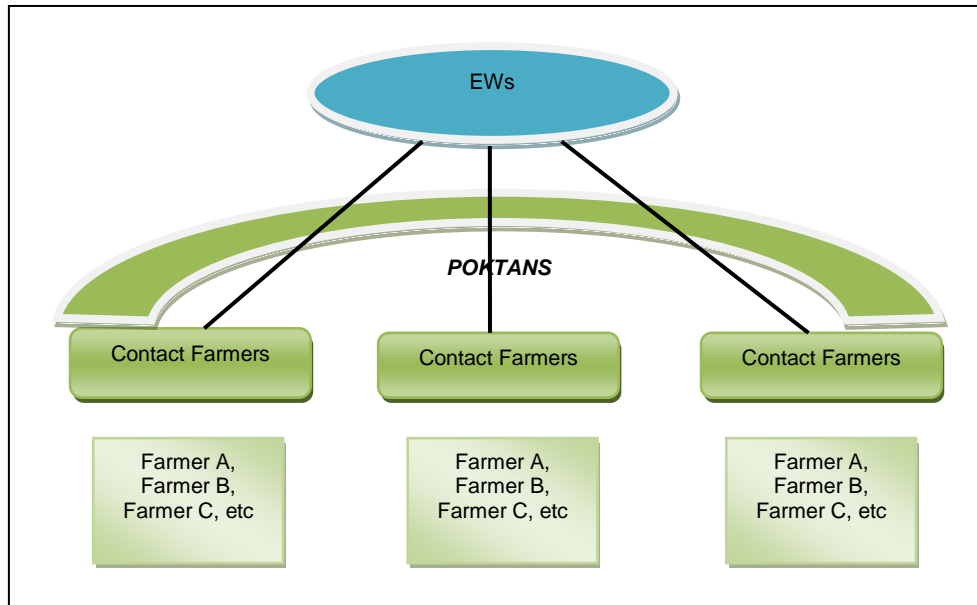


Annotation:

A cattle breeding is a form of CRP (Cattle Redistribution Program) which is a LGs' program in TL and PP districts that implemented with the aim to increase the production of cattle. By increasing the production of the cattle it is automatically increase the population of the cattle as well, in this study are cows and bulls. The increasing population of cattle absolutely will support the National Program of Beef Self-Sufficiency that has been planned by the CG as the outcome. And the impact of all that have been done here is to improve the welfare of local farmers.

Figures B

Figure B The Organisation of *Poktans*



Appendix 3 Miscellaneous

A. The Poktans Source of Income

The *Poktans* secure group income from different sources such as members' monthly contributions, group operations that deal with crop selling, rotating credit (*arisan*) and grants from government and or the private sectors (part of SCR).

Membership contributions consist of monthly, compulsory contributions and rotating credit. The amounts contributed are as follows:

1. Monthly fee: 2,000 rupiah (around 0.16 euro/month) depending on the group arrangement and members' ability to contribute.
2. Compulsory fee: 10,000 rupiah (around 0.83 euro). This is an entry fee for members and is required at the beginning of the formation of the *Poktans*.
3. Rotating Credit: 5,000 rupiah (around 0.40 euro/month). This contribution is to bolster the group's savings and is made monthly or as per arrangement.

The **rotating credit** scheme is a common feature of the *Poktans* for cash mobilization enabling members to have saving based on their contribution to the group. This is usually done by the wives. They through an informal association attached to the *Poktans* (as a main group) have provision for **mutual saving**, which is supported through membership contribution. The rotating credit is a unique scheme that works based on mutual trust reinforced by norms in the group. Each member of the *Poktans* contributes a fixed monthly fee. At

regular meetings, the *Poktans* will conduct a draw from names of members written on pieces of paper. The person whose name is drawn will receive the fund but will not participate in the next rotation though they will still contribute money to the *Poktans* until the last member is drawn to access the fund (Kawagoe, et al., 1992, p. 227). This scheme builds strong trust among members and strengthens norms through a commitment to participate until all members take a part in *arisan*.

The other sources of income include the sale of compost and plantation crops for capital accumulation that will be used to build a communal kraal for cattle, to plant grass to feed the cattle and to improve the members' skills on how to process the cattle feed using proper techniques. Lastly, the *Poktans* obtain their income from external sources such as grants and credit from governments and the private sector (as a part of social corporate responsibility). To access credit, certain conditions are needed to be met. Farmers hardly participate in this program, unless they have a strong relationship with an EW who is able to guide them in using the credit for agricultural activities that improve living standards of the farmers. Farmers consider rotating credit as a credit institution that eases financial constraints faced by farmers. In addition, the cash flow of the *Poktans* is recorded on regular basis and reported at regular meetings.

B. The Task of Extension Workers

The following are important points regarding the tasks of EWs toward *Poktans*¹⁵:

1. Facilitating access to microfinancing programs by *Poktans*,
2. Facilitating the process of *Poktans* empowerment,
3. Providing advice and access to sources of information and other resources in order to secure livelihoods,
4. Developing and transforming the organization of *Poktans* into formidable social and economic organizations,
5. Making institutional mediation particularly those involving technology

C. Modality of Hybrid: Case of Cattle Redistribution in TL

The Obligation of Farmers for Hybrid

In practice, the chosen farmers receive two cattle (that is a cow and a bull) for cattle breeding and "fattening" purposes. The farmers will be bound by contract agreements with the Disnak to comply with certain conditions such as the following:

1. Under the Breeding Program (the cow): Farmers are required to repay within four years a 35% of the principal cost and to redistribute the first offspring of the cow to other farmers in the same group who have not received cattle or act as specified in the contract.

¹⁵ Interviews with EWs in TL and PP.

2. Under the Fattening Program: Farmers are entitled to make a payment of the principal cost and a 40% of the gain of selling cattle within 12 months.

The purpose of cattle “fattening” is to generate income in the short term while on the other hand, the objective of CR in *TL* is to increase the cattle population to support LED and to improve communities’ welfare through cattle breeding activities. In addition, LG and its agencies play various important roles from the selection of *Poktans*, their distribution up to the monitoring process of implemented programs.

The Risks and Responsibilities faced by Farmers

In the case of sterile cattle, farmers would return the principal of cattle to Disnak for trading purposes. In relation to this, farmers would get 25% of the sale price and the remaining amount will contribute to the local revenue of TL District. Another condition is that cattle should be in the slaughter-house due to some reason other than sterility. Under such circumstances, 100% of the selling price will be part of local revenue.

In the cattle breeding program, farmers are free from any risks and responsibilities of replacing the cattle that are dead, barren, lost or being forcedly sent to the slaughter house due to force majeure. In return, farmers would be given a new replacement under the following conditions:

1. Farmers who have revolved one of the offspring would be entitled to redistribute another calf to others who have not received cattle;
2. Farmers who have not participated in the RFP are entitled to redistribute two of the cattle offspring.

Under the fattening program, the same conditions are applied as in cattle breeding program. Farmers receive the replacement from LG under a new contract.

In the event that the cattle breeding and fattening programs are not well implemented due to negligence of farmers in managing cattle, the recipients will not receive any replacement and have to comply with their obligations as follows:

1. Under the Cattle breeding: farmers are obliged to make repayment of 35% and redistribute at least one of the offspring within 4 years,
2. Under the Fattening program: farmers are required to pay at 40% from the margin price of cattle and 100% of selling price to LG within 12 months or as stated in contract.

Moreover, relative to the conditions of delay in the CR process caused by negligence of the farmers or failure of *Poktans* to enforce sanctions to members to comply with their obligations, the LG will intervene and withdraw the cattle from defaulting farmers. However, payment delay cases that are caused by other reasons than negligence of farmers, the LG will consider extending the time for repayment of both the interest rate to LG and redistribution of profit (the calve) to others. The table below summarizes risks and responsibilities of *Poktans* engaged in Cattle program.

Risks and Responsibilities of Cattle Program Recipients in TL District

Risks	Responsibilities of Farmers	
	Breeding Program	Fattening Program
Sterile cattle	Return the principal, get 25% of the sale	-
Cattle forcedly sent to the slaughterhouse	Farmers do not get anything	
Dead, barren, lost due to <i>force majeure</i>	New replacement under certain conditions	New replacement under certain conditions
Negligence, careless: cattle that caused cattle die, lost and sterile	No replacement, 35% re-payment, revolve one calf	No replacement, 40% re-payment of the gain and the cost of principal
Delaying in payment caused by omission/negligence	LG withdraws the cattle from farmers	
Delaying in payment with a reason or an agreement	Extending the time of payment	

Source: Own elaboration based on contract agreement

D. “Common Goods”: Case of CR in PP

The Obligation of Farmers

In practice, farmers are responsible for managing the cattle in the group so as to sustain the CR system. This type of modality applies certain conditions that bind farmers (the recipients) with certain obligations¹⁶ summarized as follows:

1. Under the Breeding Program:
 - One cow: the borrowers have to return the principal of cattle after the second pregnancy to LG,
 - A pair of cattle: the borrowers have to return the principal of cattle after the third pregnancy to LG,
 - Two cows: the borrowers have to return the two principal of cattle after the second pregnancy,
2. Under the Fattening Program (the bull): the borrowers have to return the principal of cattle to the LG after 2 years of raising period. The borrowers will receive 50% of the cattle selling price.

In the case of the breeding program, the principal of cattle is owned by the LG. Farmers are the borrowers that are required to feed and raise the cattle in order to get profit (the calf) from them. In this regard, the LG has the right to withdraw the principal of cattle after the age of 8 years and sell it as a part of local revenue of the PP District.

The Risks and Responsibilities faced by Farmers:

In the case of cattle breeding and fattening program, farmers are free from any risks and responsibilities of replacing the cattle that could die, be barren, lost or forcedly sent to the slaughter house due to *force majeure*. As for the sterility issue, farmers would return the principal of cattle to Disnak for trading purposes. Farmers would get 40% of the sale and the remaining would contribute to local revenue of PP District.

¹⁶ Stated under the District Regulation No.50 of 2009 on the general guidelines of livestock distribution and development in PP District.

Moreso, in the case of cattle breeding and fattening programs that are not well implemented due to negligence of farmers in managing the cattle, the recipients will not receive any replacement and they will have to replace the cattle to meet their obligations of the principal stated in the contract within 3 months and to comply with their obligations as follows:

1. Under Cattle breeding: farmers are obliged to redistribute the principal of cattle (the cow) after the second pregnancy to others;
2. Under Fattening program: farmers are required to return the bull within two years' time to LG.

The conditions of delay in CR process that is caused by negligence of the farmers or when Poktans are not able to enforce sanction to farmers with regards to complying with their obligations, the LG will withdraw the cattle from farmers. The following table shows the risks and responsibilities faced by farmers during the process of program in *PP*.

Risks and Responsibilities of Cattle Program Recipients

Risks	Responsibilities of Farmers	
	Breeding Program	Fattening Program
Sterile cattle	Return the principal, get 40% of the sale	-
Dead, barren, lost due to <i>force majeure</i>	Farmers are free from any responsibilities	
Negligence, careless: cattle that caused cattle die, lost and sterile	Farmers have to replace the new cattle and fulfill their obligations	
Delaying in Payment	LG withdraw the cattle	

Source: Own elaboration based on contract agreement

E. NOTES

1. *Poktan* was first introduced as a part of BIMAS (mass guidance) program in 1968; BIMAS is a program for community at rural areas, especially for those who conducted on agricultural activities. The organization of Poktans during New Order era was based on block of farmland (*Kelompok Hambaran*) in which farmers were organized into Poktan according to the same area of paddy field ownership (Kawagoe, et al., 1992).
2. CR is another form of RFP that widely implemented at local level with a targeted group of *Poktans*.
3. **SUKA MAJU**: All members were from one specific ethnic, Madura, which have been dwelling in Kalimantan since the first of its generation. This group consists of group of planting rice (36 farmers) and cattle breeding (19 members)
4. **MARGO MULYO II** (Group of Women): In the beginning this Poktan formed by men in order to participate in cattle program implemented in 2004. In practice, the wives do more work in cattle management. They feed the cattle and learn how to process the feeding with assistance from extension workers. At the end, those women decide to form a group of women (Wanita Tani) that focus on cattle breeding and vegetable plantation.

Appendix 4 List of Interviews

No	POKTANS/LGs	Interviewees	Location	Date of Interview
1.	HARAPAN BERSAMA	Pursani	Panggung Baru, TL	17 July 2012
2.	TUNAS HARAPAN	Arisandi	Panggung Baru, TL	17 July 2012
3.	SARI MURNI	Karino	Sumber Mulya, TL	18 July 2012
4.	RUKUN MAKMUR	Bedjo Nahrowi	Kunyit, TL	18 July 2012
5.	MARGO MULYO II	Karsini, Fatimah (Attending regular meeting)	Kunyit, TL	19 July 2012
6.	SIDO MAJU	ABP & members (attending regular meeting)	TL	19 July 2012
7.	USAHA MANDIRI	Ismanto & members (Attending regular meeting)		23 July 2012
8.	PANCA KARYA IV	Members	Maliku, PP	23 July 2012
9.	SUKA MAJU	Abdul Latif	Purwodadi, PP	24 July 2012
10.	SEDIA MAKMUR	Hayan, Mujiyati	Kahayan Hilir, PP	24 July 2012
11.	USAHA BERSAMA	The wives	Maliku, PP	25 July 2012
12.	Disnak Tanah Laut Echelon III and IV	M Talin Yusuf, Razif Luthfy, Lukman Effendi	TL	17 July 2012 18 July 2012 19 July 2012
13.	Disnak Pulang Pisau	Ibrahim	PP	
14.	Screening Team TL	M Talin Yusuf, Razif Luthfy	TL	19 July 2012
15.	Screening Team PP	-		
16.	Extension Workers TL	Fatimah, Syarnidah, Suliyo		17 to 19 July 2012
17.	Extension Workers PP	Mujiyati		24 July 2012
18.	Bappeda TL	Local Development Planning team		19 July 2012
19.	Bappeda PP	Local Development Planning team		24 July 2012

Appendix 5 Interview Questions

The field instrument is organized in 3 parts:

Part A: to be filled through interview with local government officials

Part B: to be filled through interview with Poktans and local head of villages

Part C: information regarding social capital to be filled through interview and desk research

Part A – LOCAL AUTHORITIES

This part is divided in 2 groups which are the rationale of RFP and RFP implementation in Tanah Laut.

A.1 Revolving Fund Program “Cattle Redistribution” in Tanah Laut

What is the size of the RFP? How may Poktans, how much money involved. How important for LG etc

1. Was RFP a part of National Program of Beef Self-Sufficiency?
 - a. Yes,
 - b. No, **go to question 3**
2. Was RFP financed by local budget?
 - a. Yes,
 - b. No
3. What were the reasons of implementing RFP in Tanah Laut? (**encircle, more than one may apply**)
 - a. Increases the population of cattle,
 - b. Promotes LED,
 - c. Community empowerment,
 - d. Support the National Program of PSDS,
 - e. LG initiative,
 - f. Others, please specify ...
4. Was there an overall plan of the LG regarding RFP?
 - a. Yes
 - b. No, what was the guideline of implementing RFP?
5. Who were involved in the design of RFP? (**Encircle, more than one may apply and what is the nature of their involvement?**)
 - a. The planning and development board (*Bappeda*),
 - b. The technical unit of *Disnak*,
 - c. Central Government,
 - d. Others, please specify ...
6. How was the planning and programming of RFP undertaken?

A.1.1 Modality

7. Which modality has been implemented in TL and PP
 - a. Loan
 - b. Gift
 - c. Hybrid

8. What was the reason of choosing the form of modality?
9. Was there a feasibility study regarding to this program?
 - a. Yes,
 - b. No ... (Explain why?)

Persons interviewed:

Date of interview:

.....

A.2 RFP Implementation in TL and PP

10. Was there a local act as a legal base for RFP implementation?
 - a. Yes
 - b. No
11. Was there a procedure regarding RFP implementation?
 - a. Yes
 - b. No, how this program was carried out?
12. Who were involved in the program implementation? (**Encircle, more than one may apply**) and what is the nature of their involvement?
 - a. LG (*Disnak*)
 - b. Bappeda
 - c. Supporting teams (LG)
 - d. Central Government
 - e. NGOs
 - f. The head of villages
 - g. Internship students
 - h. Local communities and other group of farmers
 - i. Poktans
13. How the RFP implementation process took place?
14. Who were involved in the selection process of recipients?

A.2.1 Selection and Assessment Team

15. What is the selection and assessment team?
16. Who did appoint the team?
 - a. *Disnak*,
 - b. Bappeda,
 - c. Others, please specified ...
17. What are the responsibilities of this team?

A.2.2 Selection process of Cattle Recipients (*Poktans*)

18. Was there a guideline or SOP regarding to the selection process?
 - a. Yes,

- b. No, how they conducted the selection process?
- 19. What are the criteria of being recipients?
- 20. Was were potential recipients' lefts out and why?
 - a. Yes, what was the reason of Poktans being excluded?
 - b. No

Persons interviewed:

Date of interview:

.....

Part B – Group of Farmers “Poktans”

B.1 Poktans Formation in TL and PP

1. What is Poktan?
2. How was Poktan formed? Leave this as an open question and classify types later
 - a. LG's initiative → **go to question 4**
 - b. Communities' initiative,
 - c. NGOs' initiative
 - d. Others, please specified ...
3. Who were the initiators of the Poktans formation?
 - a. Local communities,
 - b. Local government,
 - c. Head of villages and outsiders,
 - d. NGOs
 - e. Others, please specified ...

Go to question 5, if the answer selected is either a, c and d

4. Was there an intervention from LG?
 - a. Yes, **what was the reason and in which form the intervention took place?**
 - b. No
5. What was the main reason of Poktan being formed?
 - a. Implementing LG's development programs,
 - b. Communities empowerment,
 - c. Others, please specified ... yes there could be many reasons
6. Do Poktans have own budget? And who manages that budget?
 - a. Yes:
 - i. Members fees
 - ii. Other sources in community
 - iii. Other sources outside community
 - b. No

B.1.1 Administration Board of Poktan (ABP)

7. How the leader and secretary appointed?
 - a. Voting,
 - b. Appointed by LG
 - c. Self-appointed,
 - d. Others, please specified ...
8. Is there a structure of organization of Poktan? This is too vague ask for more details: how many members, and internal and external accountability; frequency of meetings, budget and accounts, do members of ABP have special privileges?
 - a. Yes,
 - b. No
9. What is the objective of Poktan?
10. What are the relation between ABP and LG?

B.2 Members Selection and Recruitment

11. How the selection of members took place?
 - a. Asked to join Poktan,
 - b. Feel the need to join Poktan,
 - c. Kinship with one of ABP or Poktan member,
 - d. Voluntary,
 - e. Others, please specified ...
12. Was there a specific criterion of being a member?
 - a. Yes, please specified ...
 - b. No
13. What were the criteria of being members? Let them describe and you classify afterwards
 - a. Settled in the same area,
 - b. Member of local associations rather than Poktan,
 - c. A kinship with the board (ABP)
 - d. Others, please specified
14. Who was included and excluded?
15. What were the reasons of exclusion?
 - a. Ethnicity,
 - b. Gender,
 - c. Social status,
 - d. Others, please specified ...
16. What are the relations among members in Poktan?
 - a. Family/ relatives,
 - b. Neighbors,
 - c. Friends,
 - d. Others, please specified ...

17. Who were involved in the recruitment process? And what is the nature of their involvement
- ABP,
 - Head of Villages,
 - LG (*Disnak*),
 - Others, please specified ...

B.3 Members of Poktan

18. What is the main reason of being a member of Poktan? Why have you joined?
19. What are the main benefits of engaging in Poktans?
20. Do the members have a relative equal income?
- Yes
 - No
- What they earn from it? (are they all benefit equally or not?)
21. Do the members have to contribute goods and money to Poktan? What do you contribute and how much?
- Yes,
 - No
22. Do the members know each other?
- Yes,
 - No
23. Is there a regular meeting of Poktan members? And what for?
- Yes :
 - Weekly
 - Monthly
 - Quarterly
 - Others, please specified
 - No
24. Do Poktan give credits to members to the following facilities:

Facilities	Yes	No
Education and training		
Cattle health education		
Access to credit to Bank		

Persons interviewed:

Date of interview:

.....

PART C

This questionnaires are distributed separately from those questions above to Poktans members in *TL* and *PP*.

1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree
5 = Strongly Agree

TRUST

1. Most members of Poktan can be trusted	1	2	3	4	5
2. Members help each other	1	2	3	4	5
3. Poktan consists of multi ethnicity	1	2	3	4	5
4. Poktan' members are from one ethnic1	2	3	4	5	
5. I agree to contribute money or goods to the group	1	2	3	4	5
6. I will invite my family and relative to join Poktan	1	2	3	4	5
7. I will not trust other members	1	2	3	4	5
8. I will trust members who are my families and relative	1	2	3	4	5
9. I will only trust other members from the same ethnicity	1	2	3	4	5
10. I trust the leader of Poktan	1	2	3	4	5
11. I trust extension workers	1	2	3	4	5
12. I trust LG as provider of RFP	1	2	3	4	5

NORMS

1. Each member actively participate in the activities (RFP)	1	2	3	4	5
2. Some members agree to participate in RFP	1	2	3	4	5
3. Some members are opportunistic	1	2	3	4	5
4. Peer monitoring is not effective and time consuming	1	2	3	4	5
5. Each member is really helpful	1	2	3	4	5
6. Members are not willing to fulfill their obligations in RFP	1	2	3	4	5
7. Members are required to contribute money/goods to Poktan	1	2	3	4	5
8. Members are not mutually liable to each other	1	2	3	4	5
9. Sanction applied in Poktans	1	2	3	4	5
10. will make a contribution to Poktan through RFP	1	2	3	4	5

- | | | | | | |
|---|---|---|---|---|---|
| 11. I know my obligation as a cattle recipient | 1 | 2 | 3 | 4 | 5 |
| 12. I think sanction is an effective way to sustain RFP | 1 | 2 | 3 | 4 | 5 |

NETWORKS

- | | | | | | |
|--|---|---|---|---|---|
| 1. Every member participates in group activities | 1 | 2 | 3 | 4 | 5 |
| 2. Members interact only with other Poktans in relation to RFP | 1 | 2 | 3 | 4 | 5 |
| 3. Members share and interact with othe Poktans that have not engaged in cattle program | 1 | 2 | 3 | 4 | 5 |
| 4. Members do not interact with other non-neighborhood Poktans | 1 | 2 | 3 | 4 | 5 |
| 5. I trust the leader of Poktan | 1 | 2 | 3 | 4 | 5 |
| 6. Extension workers are really helpful in improving cattle Management skills of members | 1 | 2 | 3 | 4 | 5 |
| 7. I trust <i>Disnak</i> as provider of RFP | 1 | 2 | 3 | 4 | 5 |
| 8. I really enjoy to participate and learn cattle breeding through Cattle program provided by LG | 1 | 2 | 3 | 4 | 5 |
| 9. Regular monitoring conducted by <i>Disnak</i> | 1 | 2 | 3 | 4 | 5 |
| 10. Teams regularly give assistance to Poktans | 1 | 2 | 3 | 4 | 5 |
| 11. <i>Disnak</i> holds regular meeting with Poktans regarding to RFP implementation | 1 | 2 | 3 | 4 | 5 |
| 12. Extension Worker is part of regular meeting held by Poktans | 1 | 2 | 3 | 4 | 5 |