

**DIFFUSION OF INNOVATION PROCESS IN RURAL
INFRASTRUCTURE PROJECT**
(Case Study of Mekar Sari Raya Village, Simalungun Regency-Indonesia)

Master Thesis

**A thesis submitted in partial fulfilment of the requirements For
The Master Degree from University of Groningen and
The Master Degree from Bandung Institute of Technology**

By

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Double Master Degree Programme
Environmental and Infrastructure Planning
Faculty of Spatial Sciences
University of Groningen
And
Department of Regional and City Planning
School of Architecture, Planning and Policy
Development
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ABSTRACT

The PNPM-PISEW was known as a community based development program. It is well-known that the PNPM-PISEW program can reduce social inequality among the poor and the rich. The Mekar Sari Raya is one of the villages that get award from the government since this village succeeds in the implementation of the PNPM-PISEW program. Therefore, this research was conducted in order to know about the process of the diffusion of innovation of the PNPM-PISEW program in this community. To answer that questions, I propose four research questions, those are: 1) How is the structure of communication channels that are used by the government in the diffusion of innovation the PNPM-PISEW in this community?, 2) How can the communication be more effective in the diffusion of innovation of the PNPM-PISEW program in the Mekar Sari Raya village?, 3) what are the results of the diffusion of innovation (PNPM-PISEW program) for the Mekar Sari Raya village and its community?, and 4) why is the Mekar Sari Raya village more successful than other villages. As a result, I find that in the process of the diffusion of the PNPM-PISEW program in the Mekar Sari Raya village, the success has been marked by the increasing of the community self-independence. Moreover, I argue that this success is determined much by the willingness of the community to participate, the use of appropriate channels in communication and their homogeneity.

Key words: *Diffusion, innovation, the PNPM-PISEW, successful, communication channels, homogeneity*

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Groningen, August 10, 2014

Rismauli Maretha Silalahi

ABBREVIATION

Bangda	: <i>Direktorat Umum Pembangunan Daerah</i> (General Directorate of Area Development)
Bappenas	: <i>Badan Perencanaan Pembangunan Nasional</i> (National Planning Board)
Bappeda	: <i>Badan Perencanaan Pembangunan Daerah</i> (Planning Agency)
BPS	: <i>Badan Pusat Statistik</i> (Statistics Indonesia)
FD	: <i>Fasilitator Desa</i> (Village Facilitator)
FK	: <i>Fasilitator Kecamatan</i> (Sub-regency Facilitator)
KDS	: <i>Kelompok Diskusi Sektor</i> (Sector Discussion Group)
KM & A	: <i>Konsultan Manajemen & Asisten</i> (Management Consultant and Assistance)
KPP	: <i>Kelompok Pemanfaat dan Pemelihara</i> (User and Caretaker Group)
KPTKP	: <i>Konsultan pendukung Tim Koordinasi Pusat</i> (Supporting Consultant for Coordination Team at Central level)
KSK	: <i>Kawasan Strategis Kabupaten</i> (Regency Strategic Area)
LKD	: <i>Lembaga Kemasyarakatan Desa</i> (Village Community Institution)
MUSRENBANG	: <i>Musyawah Perencanaan dan Pembangunan</i> (Planning and Development Meeting)
PIU	: <i>Project Implementation Unit</i>
PJOK	: <i>Penanggung Jawab Operasional Kegiatan</i> (Responsible person for operational activities)
PNPM-PISEW	: <i>Program Nasional Pemberdayaan Masyarakat – Pengembangan Infrastruktur Sosial Ekonomi Wilayah</i> (National Program of Community Empowerment – Regional Infrastructure For Social and Economic Development)
POKJA	: <i>Kelompok Kerja</i> (Working Group)
PPIP	: <i>Program Pembangunan Infrastruktur Perdesaan</i> (Rural Infrastructure Development Program)
PMD	: <i>Pemberdayaan Masyarakat Desa</i> (General Directorate of Empowerment of Village Community)
PMU	: <i>Project Management Unit</i>
PPK	: <i>Pejabat Pembuat Komitmen</i> (Functionary of Commitment Maker)
TMFK	: <i>Tenaga Monitoring Finansial Keuangan</i> (Financial Monitoring Staff)
TTL	: <i>Tenaga Teknis Lapangan</i> (Field Technical Team)

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CHAPTER 1. INTRODUCTION

1.1. Background

The provision of basic amenities in developing countries such as fresh/ clean water, hospitals, schools, electricity, roads, etc., is the most inadequate (Fonjong et al. 2004). It seems that rural areas often become the last priority of the government agenda to develop. Fonjong and friends also mention that regional development policies in developing countries tend to concentrate on development in urban centres that finally will create disadvantages for the countryside. Therefore, in developing countries, for example Indonesia, the countryside is poorer than urban centre.

In 2008, there are 34.96 million poor people¹ recorded in Indonesia; 12.77 million live in urban, meanwhile 22.19 million in rural (BPS, 2008). Asnudin (2009) identifies, one of the problems faced in improving the local economic situation in Indonesia, especially in rural area is the lack of good infrastructure. For example they do not have good access to the outside world, thus it is difficult for farmers and entrepreneurs to sell their product or harvest. Even, in some areas, it is difficult to get the very basic needs such as clean water. It is known that water is a key constraint to economic growth and development in water-scarce developing countries (Hope, 2005).

From the explanation above, it can be said that to improve the economic in rural areas, indeed it needs to improve rural infrastructure. As Kanbur (2009) states that infrastructure is a broad term. Commonly, the term of infrastructure is used for roads. However, now, this term also is used for electricity, telephone connections, water supply, building to house markets. Therefore, rural infrastructure can be defined as physical infrastructure that provides access to basic services and social and economic services for rural communities (Asnudin, 2009).

In order to manage rural infrastructure development, Indonesia has PPIP (Program *Pembangunan Infrastruktur Perdesaan*) that is handled by Ministry of Public Works. The PPIP itself is a program community development under the PNPM (the National Program of Community Development). This program aims to create and to increase the quality of

¹ Poor people (NSB/ BPS, 2008) is people with the inability to meet the minimum basic needs such as food, clothing, health, housing and education necessary to be able to live and work. Meanwhile the variables determined poor are: 1). Home space: <= 8m, 2). Floor type: ground, 3). Drink water: from rain/well, 4).toilet: no toilet, 5). Asset ownership: no asset, 6). Total income per month: <= Rp. 350.000,-, 7). Spending: > 80% and 8). Consumption of meat, fish, egg: not consume or consume but not vary.

community life (The Ministry of Public Works, Directorate General of Human Settlement, 2014).

The principles of this program are:

1. Acceptable; the choice of the kind of project is based on village meetings, thus it can be accepted by community as a whole.
2. Transparency; the project is done together with community openly and known by elements of society.
3. Accountable; the project that is done by the community must be accounted for.
4. Sustainable; the implementation of project can give the benefits to community sustainability

Furthermore, it can be said that PPIP is one of the programs made by Indonesian Government to promote welfare for the citizen. The government should ensure that the citizens can meet their basic needs such as adequate food, clean water, sanitation, education, infrastructure and many others. Therefore, The National Team for Poverty Reduction (*Tim Nasional Percepatan Penanggulangan Kemiskinan*) on the behalf of the Indonesian Government has set the strategies in poverty reduction such as: a. fixing social protection programs; b. improving access to basic services; c. empowerment of the poor; and d. creating inclusive development. The program is not just to provide direct aid to the poor. Since the cause of poverty is not only due to the aspects that are purely materialistic, but also because of the vulnerability and lack of access to improve the quality of life of the poor, the other approach is intended to empower the poor to escape from the poverty using its potential and resources (The National Team for Poverty Reduction, 2013).

There are so many strategies that have been made by the Government of Indonesia. Meanwhile according to Davidson (2009), the strategies to increase the quality of life of citizen can be divided into people-based strategies and place-based strategies. The people-based strategies is defined as the strategies to increase the welfare by investing in individuals, often with the explicit goal of allowing those individuals to move to a better life, while place-based strategies is defined as the strategies in which their specific target are communities or locations, often with the explicit goal of revitalizing entrenched pockets of poverty. Further, the place-based strategies emphasise the identification and mobilization of endogenous potential, that is, the ability of places to grow by drawing on their own resources. The aim is to maximise national output by encouraging each individual region to reach its growth potential from within (Tomaney, 2010). This place-based approach focuses on both distance and place context, including social and cultural factors (Brown et.al, 2002).

Therefore, based on strategies mentioned by National Team for Accelerating Poverty Reduction above, it can be said that the Government of Indonesia does not use only people-based development strategies, but also place-based development strategies in its effort in poverty reduction. The place-based strategies is used since in reality, of course, all people live in places contribute to places and are affected by places. Moreover, poverty and disadvantage are mediated by place, and places are affected by the poverty or otherwise of their inhabitants (Griggs et.al, 2008).

In place-based development, indirectly government tries to increase the economy of its citizen by developing the infrastructure such as road, bridges and many others. However, since the needs in each community or group are not similar, sometimes the government fails to answer the needs of its community. Therefore, to get success in development, it is important to involve community in that development itself. Besides that, it is important to increase the participation of community, thus community can be able to improve the desirable development, independently (Bappenas, 2010). This kind of development is known as a community based development.

The community based development itself has been being a new trend to find the ways to accelerate the welfare. This approach emphasizes the participation of community in the development. In addition, Sanoff (2000) states that the emergence of community participation theory as an approach to social development is an outgrowth of the United Nation' popular participation programs that required the creation of opportunities for all people to be politically involved and share in the development process.

Sanoff (2000) argues that community participation is commonly related with the idea of involving local people in social development in which the purposes of the participation are: 1) to involve people in design and decision-making processes and; this will increase their trust and confidence in organizations, making it more likely that they will accept decisions and plans and work within the established systems when seeking solutions to problems. 2) to provide people with a voice in design and decision making in order to improve plans, decisions, and service delivery. 3) to promote a sense of community by bringing people who share common goals together. Therefore Sanoff concludes that participation may be seen as direct public involvement in decision making processes whereby people share in social decisions that determine the quality and direction of their lives.

Meanwhile, World Bank (2013) defines that Community Based Rural Development as a participatory approach to reducing rural poverty. It promotes collective action by communities by putting them in control of development projects and programs. This was certainly true for the first development decades of the 1950s and 1960s, when, under the direction of the UN and its affiliated organizations (UNESCO, ILO, FAO, WHO, UNICEF), Community Development was actively promoted throughout the developing world as part of the nation-building process and as a means of raising standards of living among the poor² (Champfens, 1997).

Further, Asnudin (2009) says that the community based development can give impacts such as: 1) quality of the work product, 2) the sustainability of operational and maintenance of infrastructure, 3) the community ability to develop a partnership with other parties, and 4) strengthening the capacity of community to be able independently to facilitate community activities in its area. Further, Asnuddin (2010) mentions that the benefits of community in development are: (1) it is able to stimulate the emergence of non-governmental support that is important in development, (2) it is able to increase the motivation and skills of the community in building, and (3) the implementation of development becomes be more in accordance with the aspirations and needs of the community, (4) there is a broad range of development, albeit with limited funds, and (5) it does not create the dependence on government.

Community participation generally is more successful when the community takes on much of the responsibility, than when the higher level of public agencies attempts to assess consumer preferences through surveys or meetings (Thwala, 2009). However, communities still need supporting organisations as the sources and channels of information for making wise decisions.

Furthermore, from the explanation above, indirectly, the community participation approach in development can strengthen the community capacity socially. As Chaskin et al. (2001) argues that in general sense, community capacity can be defined as what makes communities “work”. He then concludes that community capacity is the interaction of human capital, organizational resources, and social capital existing within a given community that can be leveraged to solve collective problems and improve or maintain the well-being of that community. Further, Chaskin et al. (2001) says that community capacity may operate through informal social

² People can be said to be in poverty when they are deprived of income and other resources needed to obtain the conditions of life—the diets, material goods, amenities, standards and services—that enable them to play the roles, meet the obligations and participate in the relationships and customs of their society (UNDP, 2006)

processes and/ or organized efforts by individuals, organizations, and social networks that exist among them and between them and the larger systems of which the community is a part.”

According to Atkinson and Willis (2006), community’s capacity building basically refers to ‘local solutions to local problems’ which enable communities to deal with problems, ultimately without relying on external resources. Moreover, as explained by Downing et al. (2002) the capacity building enables communities that would otherwise be excluded to participate in the process, leading to better, and more just, decisions.

Therefore it is identified that to develop capacity of the community, active participations of majority individual in that community itself is needed. Besides that, the community also needs intervention from outside to enhance their capacity. Chaskin et al. (2001) states that community capacity is engaged through varying combinations of three levels of agency: individuals, organizations, and networks of association. Thus, as Atkinson, et al. (2006) says Community Capacity Building as:

‘the networks, organisation, attitudes, leadership and skills that allow communities to develop according to their own priorities and needs.’ (p.3)

1.1.1. PNPM-PISEW as one of community based development program in Indonesia

Actually, the community based development system itself has been adopted by Indonesian planning practice since 1998 (The National Coordination Team of the PNPM-PISEW, 2010). However, in the implementation, the decentralization faced some problems, such as: low human resources capacity and local fiscal. Therefore, local government fails to absorb the aspiration and to involve community in the process of participative development, even though in Law No. 25 in 2004 about National Planning System, national policy has been outlined to involve the community in the planning process of development.

Therefore, in 2008, PNPM-PISEW (National Program of Community Empowerment-Regional Infrastructure for Social and economic Development – Regional Infrastructure for Social and Economic Development) has been launched as part of National scenario of the PNPM-Mandiri (National Program of Community Empowerment-Mandiri). This program is expected to reduce poverty and also to increase the ability of local government to implement decentralization and local autonomy. The PISEW program is a program providing technical assistance and basic rural infrastructure investment with orientation on concept of “Community Driven Development (CDD)” and “Labor Intensive Activities (LIA)” (Bappenas, 2010).

The aims of the PNPM-PISEW program itself are: to accelerate rural economic development, to alleviate poverty, to improve local governance (district, sub district and village) and also to strengthen local institution in Village. The basic principles of this program are: 1) transparent and accountable; 2) democratic; 3) participative; 4) gender equality; 5) collaborative; and 6) sustainable. Then, in its implementation, the role of central Government with Province Government is giving assistance and monitoring; district government do management and control and Sub district and village government with active participating community, together do activities such as planning, implementation, utilization, and maintenance (Bappenas, 2010). Finally, this program is expected to reach good governance and sustainable development.

1.1.2. Sustainable Development as one of the aims of the PNPM-PISEW program

In its practice, this program has given many benefits for communities in Indonesia, especially in rural areas (The World Bank, 2011). They can enjoy clean water for living healthier, better transportation infrastructure for easier access to sell their products, etc. Even, some communities can continue the development. They can build other infrastructures by themselves, afterwards. It means that some communities have been successful in reaching the sustainable development, which is the one of this program aims.

One of the communities that got funding from this program is the community of Mekar Sari Raya village in 2009. In the past, before 2009, this community had severe difficulties in getting clean water for their daily life. They had to walk up and bear the water as far as 1 km or wait for rain. However, after they got financial and technical support from the PNPM-PISEW program in 2009 for building water provision infrastructure, finally they could enjoy the clean water easily. The interesting thing that can be seen from the process of building this water provision infrastructure is the spirit of mutual coordination. Actually, the community of Mekar Sari Raya village only got funding from the PNPM-PISEW program for installing 1550 meter pipes while they needed 3000 meter pipes. However, based on consensus among the local community of Mekar Sari Raya village, this community bought and added 1450 meter pipes by using their own money (The National Coordination Team of the PNPM-PISEW, 2012).

Furthermore, eventhough the water provision infrastructure has been built, the activity of the Mekar Sari Raya community to develop did not stop there. Without further financial support from government of Indonesia, independently the Mekar Sari Raya community was able to

continue other infrastructure developments in order to improve their welfare. Firstly, the community continued to utilize and to maintain the water provision infrastructure together. In order to maintain the infrastructure, they chose the persons who should be responsible for the maintainance. Since they needed money for the maintenance, they had an idea to collect money every month from the households based on the amount of water usage. All the members of this community agreed and willing to pay for this clean water (The National Coordination Team of the PNPM-PISEW, 2012). This willingness to pay for this clean water is driven by easy access to clean water through piped water connected to their houses (van Berg, et al., 2010).

Further, since the money is continuing to be collected and the amount increase, the ideas to use the money to build other infrastructures emerged. Therefore, from the collected money, they have been able to build a Kindergarten School, road, mosque and other infrastructures. They also have established a cooperation that gives loans to residents without interest. All in all, the welfare of the community in the Mekar Sari Raya village has been considerably improved (The National Coordination Team of the PNPM-PISEW, 2012).

Therefore, the community of Mekar Sari Raya village located in Panei Sub-Regency, Simalungun Regency, Sumatera Utara Province, Indonesia has been identified as one of the best implementation areas of the PNPM-PISEW program. They got an award from Indonesian Government (Ministry of Home Affairs) in 2011 because of their success in implementation of PNPM-PISEW program for a category of utilization and maintenance. The community of Mekar Sari Raya village has showed their ability to sustain the development after the program ended(The National Coordination Team of the PNPM-PISEW, 2012).

The case above shows that the PNPM PISEW program as an innovation has been successful communicated to the community of Mekar Sari Raya village. Furthermore, the aims of the Indonesian government with this program were achieved. Finally, this community could improve their quality of life through this program. This process itself can be called as a process of diffusion of innovations.

1.2. Research Problems

The PNPM-PISEW program becomes a well-known community based development program in Indonesia since this program is seen as the most successful development program of Indonesian Government to increase the community welfare (Agung Laksono, 2013). This program involves the members of the community itself and intervention of government and also a consultancy firm.

Firstly, this program was introduced by government to the community through local government and other media. Then, in order to give further information to the community regarding to the implementation of this program, the government provides technical assistance through a consultancy firm.

From the explanation above, it is seen that the government has tried to give as much information as possible to community about the PNPM-PISEW program. Therefore, the program can be adopted by the community. Further, in order to develop their area; the Mekar Sari Raya community has used the same development method as in the PNPM-PISEW program in their routine activities. Therefore, based on the stages in the process of diffusion of innovation (agenda-setting, matching, redefining/ restructuring, clarifying and routinizing) specified by Rogers (2003), it seems that the community of Mekar Sari Raya village has arrived at the stage of routinizing.

According to Rogers (2003) routinizing itself, occurs when an innovation has become incorporated into the regular activities of the organization and has lost its separate identity. He adds that at that point, the innovation process is completed. Therefore, it can be concluded that Mekar Sari community has passed all the stages of the process of diffusion of innovation while many other areas (villages) have not. Therefore, it is interesting to know more about the process of diffusion of an innovation called the PNPM-PISEW program in the community of Mekar Sari Raya village.

1.3. Research Objective

The research goal is to identify and to describe the process of the diffusion of innovation in order to gain insight in successful community based development of infrastructure. Therefore, this research intends to find an overview of the communication channels that are used by government to communicate the PNPM-PISEW program to the Mekar Sari Raya community and the aspects that influence the communication to make it even more effective in Mekar Sari Raya village. After that, this research also aims to find the changes on the community and the village as a consequence of the diffusion of the PNPM-PISEW program. Finally, this research aims to find the aspects that influence the diffusion of the PNPM-PISEW in the Mekar Sari Raya village is more successful in other village.

1.4. Research Question

Thus, according to the explanation above, our research questions are as follows:

1. How is the structure of the communication channels that are used by the government in the diffusion of innovation of PNPM-PISEW program in Mekar Sari Raya village?
2. How can the communication be more effective in the diffusion of innovation of PNPM-PISEW program in Mekar Sari Raya village?
3. What are the results of diffusion of innovation (PNPM-PISEW program) for the Mekar Sari Raya village and its community?
4. Why is Mekar Sari Raya village more successful than many other villages?

1.5. Research Significance

The community based development is extensively used in Indonesia. Through the PNPM-PISEW program all villages in Indonesia got access to funds to build the infrastructure that they need. However, although the rules are the same for all villages, they have different levels of success. When most of villages only have the capacity to utilize the results of the project, there are some villages that can be categorized as successful examples that have the capacity to continue the development. It seems that those villages have been successful to reach the final stage of diffusion of innovation process.

The study about the successful of the Mekar Sari Raya community will be useful for academic and policy purposes. Especially in Indonesia, the results of this study might be used as a lesson for other rural areas in order to reach the whole stage of an innovation that can be used to improve their welfare. Hopefully, the innovation that is introduced by the government can be adopted in a short time. Further, the welfare of Indonesia citizen can be achieved and the amount of poorer in Indonesia, sooner or later will be reduced.

1.6. Research Framework

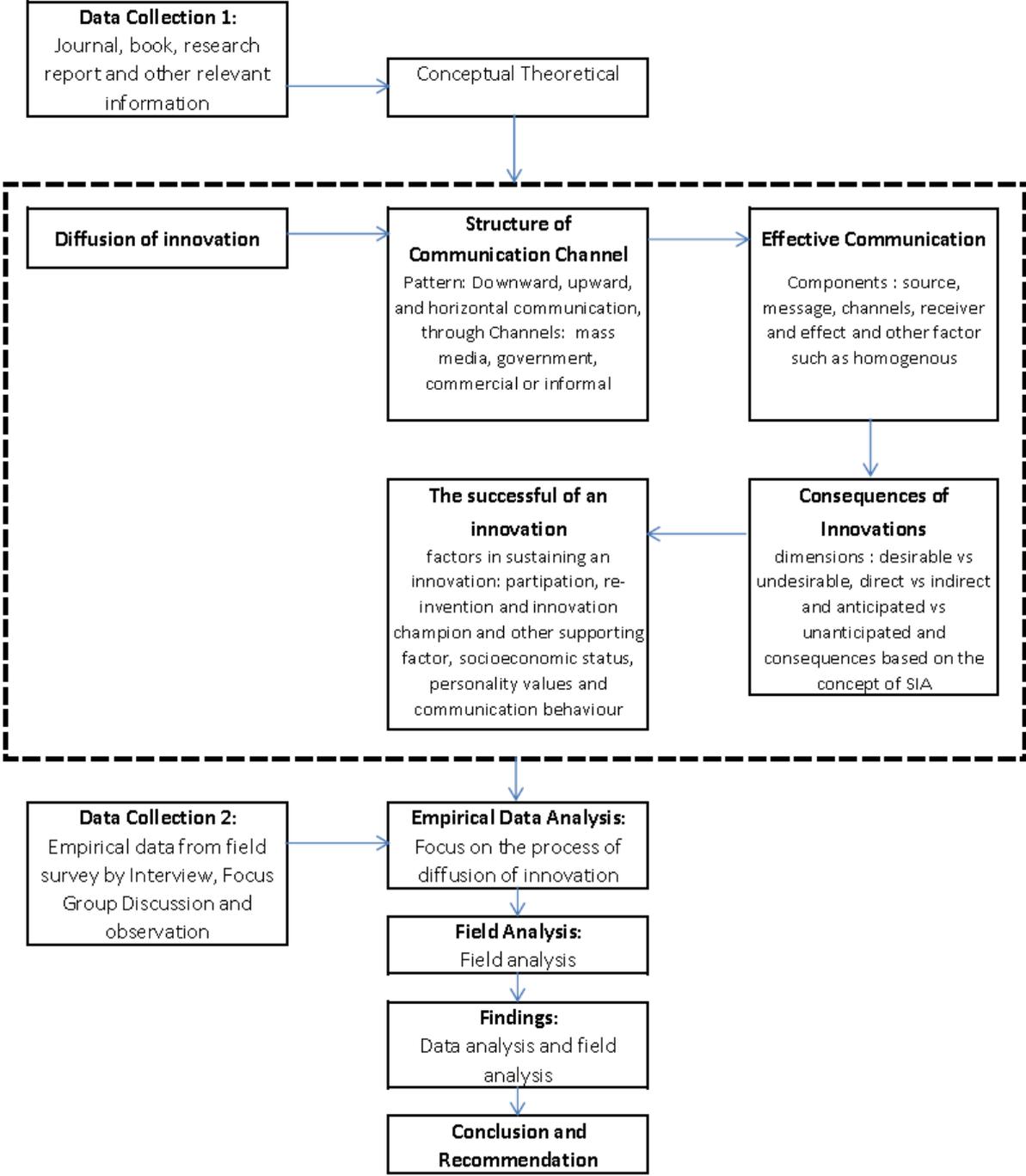


Figure 1. Research Framework scheme
(source: Author)

CHAPTER 2. LITERATURE REVIEW

2.1. A Concept of Diffusion of Innovation

Actually, the study of the diffusion of innovation process is not something new. The process of diffusion of innovations has motivated many academic since the sixties and extending until today (Laciana, 2014). Delre (2007) argues that the roots of this stream of research can be found in the works of Bass (1969) and Rogers (1995). However, the area of the study about diffusion of innovation has widely grown. A study of innovative processes today is not only related to practioners in specialist areas such as education, advertising, marketing, sales promotion and public relations, but also in even more wide-ranging activities related to sport, the church, medicine, politics and social welfare (Spence, 1994). Moreover, as stated by Graf (2006), innovation and technological progress are fundamental to economic growth.

From the fact above, it can be said that the study about the inovative process is getting more important. Further, to get insight about the diffusion of innovation, firstly, it is important to know what the innovation is. Innovation is often related to invention. Some social scientists would perhaps accept the sequence of invention and innovation as a logical sequence (Ruttan, 2001). While invention is the generation of some scientific idea, theory or concept that may lead to an innovation when applied to a process of production, innovation is the new production of technological knowledge or something newly created or produced, (Elster, 1983; Spence, 1994). Furthermore, Spence (1994) states that all inventions are innovations since they make something which did not exist previously. He says that not all inventions are material artefacts. He also adds that an innovation is not always an invention, however it can be a new way of viewing something which way already be exist. Innovation covers the introduction of new or adapted products, produced with new or adapted equipment and in new or adapted organizational procedure (Cozzens et al., 2009; Conde, 2004). Meanwhile, according to Ruttan (2001) the concept of innovation has traditionally played a more important role in economics than the concept of invention.

Secondly, diffusion is a social activity of which interpersonal contact and influence are inescapable and essential factors (Spence, 1994 and Brown, 1968). In line with Spence, Rogers (2003) defines diffusion as the process by which the structure and function of a social system change occur. He explains that when new ideas are invented, diffused, and adopted or rejected,

it will have consequences. The consequences can be the social change. Indeed, such change can also occur in other way, such as a political revolution, a natural event (for example a drought or an earthquake) or a government policy. Therefore, Peres et al. (2010) states that:

“Innovation diffusion is the process of the market penetration of new products and services, which is driven by social influences. Such influences include all of the interdependencies among consumers that affect various market players with or without their explicit knowledge.” (p.91)

Therefore, Rogers (2003) defines the diffusion of innovation as the process to communicate an innovation through certain channels over time among the members of social system. He states that there are four elements in the diffusion of innovation that can be explained as can be seen below:

1. Innovation

Perception of an individual or other unit of adoption that an idea, practice, or object is defined as an innovation. Here, the newness is not only expressed in terms of new knowledge but also persuasion, or a decision to adopt. Due to the rate of adoption, there are five characteristics of innovations, ie: 1) Relative advantage is the level of an innovation is perceived as better than the idea it supersedes, 2) Compatibility is the level of an innovation is perceived as being consistent with the existing values, past experiences, and needs of potential adopters, 3) Complexity is the level of an Innovation is perceived as difficult to understand and use, 4) Trialability is the level of an innovation may be experimented with on a limited basis, 5) Observability is the level of the results of an innovation are visible to others. It can be concluded that innovations that are perceived by individuals as having greater relative advantage, compatibility, trialability, and observability and less complexity will be adopted more rapidly than other innovations.

2. Communication Channels

Communication is the process of reaching a mutual understanding by which participants create and share information by participants with one another. Diffusion is a specific type of communication in which the content of the message exchanged is related with a new idea. Therefore, the main important thing of the diffusion process is the information exchange through which one person communicates a new idea to one or several others. The process of communication itself involves: 1) an innovation, 2) an individual or other unit of adoption that has knowledge or experience with the innovation, 3) another individual or other unit that does not yet have knowledge/ experience with the innovation, and 4) a communication

channel to connect the two units. Thus, it can be said that a communication channel is the means by which messages transfer from one person to another.

3. Time

The dimension of time is involved in diffusion in 1) the innovation-decision process; the process through which an individual passes from first knowledge of an innovation and decide to adopt or to reject it, 2) the innovativeness and adopter categories; the relative earliness/lateness of adopting an innovation compared with other members of a system, and 3) rate of adoption; the number of persons or the members of the system who adopt the innovation in a given time period.

4. A Social System

It is important to know that diffusion happens within a social system. The social system can be defined as a set of interested units engaged in joint problem solving in order to reach a common goal. The members or units of a social system are not only individuals but also may be informal groups, organizations, and/or subsystems. The social system has *structure* that is defined as the patterned arrangements of the units in a system. The patterned arrangements will gives stability and regularity to individual behaviour in a system. However, the social and communication structure of a system can facilitate or impedes the diffusion of innovation in a system. The aspects of social structure are 1) *norms*, defined as the patterns of established behaviour for the members of a social system; 2) *opinion leadership* defined as the degree an individual is able to influence other individuals attitudes or overt behavior informally in a desired way with relative frequency; 3) *a change agent* is an individual who tries to influence innovation-decision of clients in a diretion that is deemed desirable by a change agency; 4) *an aide* can be defined as a less than fully professional change agent who intensively contacts clients to influence their innovation-decisions.

Further, talking about the process of the diffusion of innovation, indeed relate with the process of decision making about an innovation itself. Scholars of diffusion have long identified that the process in which an individual make the decision about an innovation is not an instantaneous act (Rogers, 2003). For example from the study conducted by Ryan and Gross in 1943 (Rogers, 2003), it is seen that the typical farmer learn about the existence of the new idea from particular communication channels, then sought for further information from other different channels. Then, they need to try out the new seed on a few acres of corn before they decide to accept or reject that new idea. Finally, several years later they adopted the new idea completely.

Therefore, Rogers (2003) concludes that the process of decision making about an innovation happens over time and consists of a sequences of different actions. He defines five major steps in the process of innovation-decision making that is involved with time, those are:

- 1) Knowledge; Knowledge happens when the individual or other decision-making group is introduced to an innovation's existence and then gets some understanding of how that innovation functions.
- 2) Persuasion; Persuasion takes place when an individual or other decision-making group forms a favourable or an unfavourable attitude towards the innovation.
- 3) Decision; Decision happens when an individual or other decision-making group engages in activities that lead to a choice to adopt or reject the innovation.
- 4) Implementation; Implementation happens when an individual puts a new idea into use.
- 5) Confirmation; Confirmation occurs when an individual seeks reinforcement of an innovation-decision already made, but he or she may reverse this previous decision if exposed to conflicting messages about the innovation.

We have learned about the elements of innovation and the step of decision making process as has been explained above. However, since this study aims to explore more about the diffusion of innovation in a community, it would be important to know how the innovation process in organization takes place. As mentioned by Rogers (2003), the process of innovation in organization consists of five sequences; two sequences are in initiation sub-process while the other three are in the implementation sub-process.

The first two sequences such as agenda-setting and matching form initiation that are defined as the whole information gathering, conceptualizing, and planning for the adoption of an innovation that lead up to the decision to adopt. Then, the three sequences such as redefining/ restructuring, clarifying and routinizing form implementation that are defined as all of the actions, events and decisions that are involved in putting an innovation into use. Further, the five sequences of the process of innovation in organization can be explained as follows (Rogers, 2003);

A. Initiation

1. Agenda-setting;

Agenda-setting stage is the stage in the process of innovation at which a general organizational problem is defined. Thus, after the problem is defined, it creates a perceived need for an innovation. The agenda-setting sequence in the process of innovation in an organization consists of: 1) identifying and prioritizing needs and

problems and 2) searching the organization's environment to locate innovations of potential usefulness to solve the organizational problems.

2. Matching

Matching stage happens when a problem from the organization's agenda is compatible with an innovation. At matching stage, conceptual matching of the problem with the innovation happens to set how well they fit. This decision leads to rejection, terminating the innovation process before the new idea's implementation. The organization's decision makers may sum up that the innovation is mismatched with the problem

B. Implementation

3. Redefining/ Restructuring

Redefining/ restructuring stage occurs when the innovation imported from outside the organization slowly begins to lose its character. At redefining/ restructuring the innovation is re-invented in order to accommodate the needs of the organization and the structure more closely, and the organization's structure is modified to fit with the innovation. Both the innovation and the organization are supposed to change, at least to some degree, during the innovation process at the redefining/ restructuring stage.

4. Clarifying

This clarifying stage is defined as the stage in the process of innovation at which the innovation is put into widespread use in an organization. Because of that the meaning of the new idea gradually becomes clearer to the organization's members. Too-rapid implementation of an innovation at this stage can lead to disastrous result. The clarifying stage in the process of innovation in an organization consists of social construction. When a new idea is firstly implemented in an organization, it is surrounded by certainty and has little meaning to the organization's members. There are specific questions that individuals seek to answer at this stage, such as: How does it work? What does it do? Who in the organization will be affected by it? Will it affect me? Since the people in the organization talk about the innovation or the new idea, they gradually reach a common understanding of it.

5. Routinizing

Routinizing is defined as a stage at which an innovation has become incorporated into the regular activities of the organization. That innovation has lost its separate identity. Thus, it can be said that at that point, the innovation process is completed. This routinizing stage is also closely related with the term of sustainability that is defined as the degree to

which an innovation continues to be used after initial efforts to secure adoption is completed. One important factor to explain the degree to which an innovation is sustained by an organization is “participation”.

Spence (1994) says that there are seven factors that influence an innovation can be adopted more readily; 1) the low cost of the innovation (new product or practice), 2) the innovation that are relatively simple to understand and to operate by the users , 3) the innovation that is open to inspection and also can be seen to work, 4) the innovation which can be tried in part before any commitment has to be made, 5) the innovation that have not any conflict with the values and beliefs, 6) the innovation that can be seen to be a major improvement on what currently exists, 7) the innovation that needs group decision making especially in the context of organization.

2.2. Structure of Communication Channel

As has been explained above by Rogers (2003), to diffuse an innovation among the members of social system, it needs communication through certain channels. It means that choosing of communication channel in the process of diffusion of innovation will influence the rate of adoption or decision to adopt or to reject the innovation itself. According to Rogers (2003) channels are the means or tools that are used to transfer information from one person to one or more other persons. Meanwhile, Spence (1994) says that channels are the essential routes by which one person may succeed in transferring some idea from his or her own mind into the mind of someone else.

Therefore, communication channels can be defined as the routes along which information normally passes from sender (those who send the information/message) to receiver (those who receive the message). Along with the times, there are many communication channels that can be found in practice. According to Spence (1994), there are four important communication channels in practice that can give influence on potential adopters;

1. Mass media

The type of channels that fall into mass media include print media such newspaper and magazine; electronic media such as radio and television and advertising such as posters and illuminated display.

2. Government

The channels that include to Government are officials and field officers that particularly intend to fulfill their duty as it is laid down and to promote their official department or

agency perspectives. These officials are especially from the areas of agriculture, social work, education, environmental health and the like.

3. Commercial

The channels that fall into commercial include salespeople, dealers, and those that intend to influence purchasing habits. In order to prevent them giving other useful objective suggestion, they often get commission to do their duty.

4. Informal

The informal channels include friends, neighbours, colleagues or peer group members with whom there can be a good chance to discuss things of mutual interest in informal situation. Usually, they are potential adopters or those that can be trusted and involved in decision making process.

All the channels above are used to influence the diffusion of innovation process. The process is not only influenced by choosing the communication channels, but also by putting appropriate communication channel in the structure of social system. As mentions above by Rogers (2003) the social or communication structure can affects the diffusion and adoption of innovations in a system. Furthermore, Lunenburg (2010) states that the communication patterns within the organization are influenced by an organization's structure. Thus, it is important to know what are the channels used in the structure of social or communication.

Structure as mentioned by Rogers (2003) can be defined as the patterned arrangements of the units in a system that can give regularity and stability to human behavior in a system. Therefore communication structure can be defined as the differentiated elements that can be recognized in the patterned flows of communication in a system. In the flow of communication, we can find formal structure and also informal structure.

Rogers (2003) states that formal structure in a social system can be defined as well-developed social structure, for example structure in a bureaucratic organization such as government agency. This well-developed structure consists of hierarchical position, in which individuals in higher-ranked positions have a right to issue orders to the lower positions. According to Johnson, et. al (1994) formal communication is taken into account to be "official" such as oral communication up and down the organizational chart and written communication in formal memoranda and department directives. Meanwhile, informal communication structure can be found in the

interpersonal network, tend not to follow the organizational chart and also more personal (Johnson et al.,1994; Rogers, 2003).

According to Lunenburg (2010) the organizational chart provides graphics that can represent as the pattern of communication. Further, he identifies three different patterns of communication, those are downward communication, upward communication, and horizontal communication (see Figure 2). Downward communication occurs when information from higher level flow to lower level of organisation, meanwhile upward communication happens when information travel from lower level to higher level of organisation. Then, horizontal communication happens when information flows among the same level. Horizontal communication flows are used for coordination.

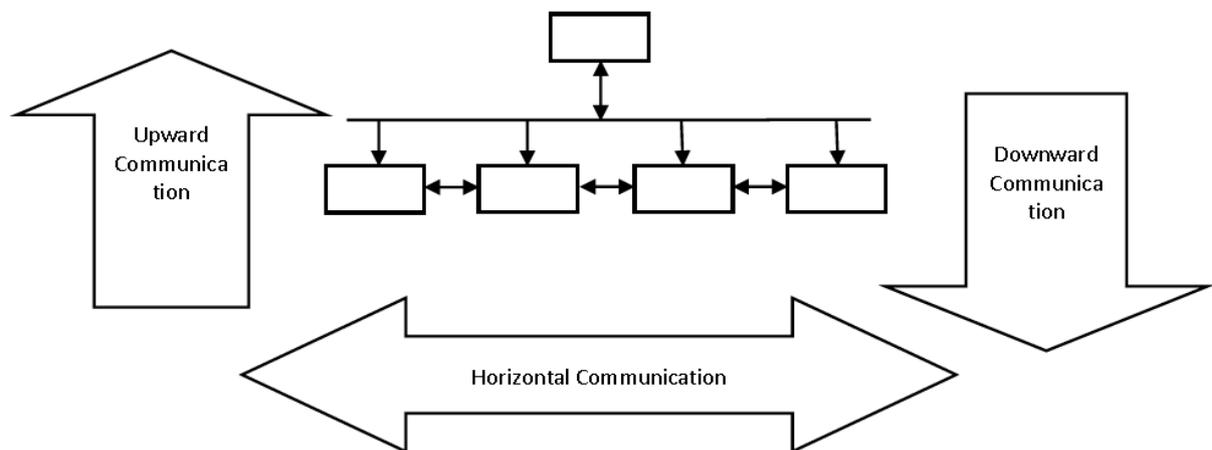


Figure 2. Downward, upward, and horizontal communication
(source: Lunenburg, 2010)

2.3. Effective Communication

As mentioned above, communication is the process by which participants create and share information with another to reach a mutual understand (Rogers, 2003). Spence (1994) says that a communication process would be to answer some questions such as who?, says what? by which means? to whom? and with what effect? Further, he argues that success in communication is gained when the sender's intentions have been fulfilled. Therefore, it can be said that an effective communication can occur when a mutual understanding can be reached in a process of

communication by taking into account five components such as sender, message, channel, receiver and effect;

1. Source or sender; One factors involved in this component is status. A message may be determined more credibility or greater importance, if it originates from someone of high perceived position rather than from an individual of lower position.
2. The Message; A message can be effective if it must not only be received, but it must also be understood in order to produce resultant action. Therefore, it needs the two way flows with spoken face to face language because in two way flows there is often, though not always give the opportunity for questions or discussion or discussion to help clarification.
3. Channels of communication; there are two important things that must be considered in this component namely human and technological. In human terms, channels are the important routes by which one person may succeed in getting some idea from his or her own mind into the mind of someone else. It is not wonder, on occasion, one route may prove to be more effective than another. Meanwhile, in technological term, new technology channel such as internet also can help the communication to be more effective.
4. Receiver or Recipient; Recipient can modify subsequent message. Recipient can send the message in the same time or a similar context by influencing choice of content, timing or channel to ensure maximum effectiveness.
5. Effect; Effect can be defined as any outcome, predicted or not, desirable or undesirable, which can be said as the result from the Source - the Message - Channels of communication – Receiver - Effect sequence.

Meanwhile, according to Rogers (2003), mass media channels are known usually with more effective means of informing an audience of potential adopters about the existence of a new idea or innovation. Here, the mass media channels are defined as all those means of transmitting messages such as radio, television, newspapers, and so on, which enable one or a few individuals to reach an audience of many. On the other hand, the interpersonal channel or a face-to-face exchange between two or more individuals are more effective in persuading an individual to accept a new idea, especially if the interpersonal channel links two or more individuals who are similar in socioeconomic status, education, or other important ways.

Therefore, Rogers (2003) explains that more effective communication happens when two or more individuals are similar on variables such as beliefs, education, socioeconomic status, and alike. When they share a mutual subcultural language and common meanings, and the same

personal and social characteristics, the communication of innovation or new idea likely has greater effects in terms of knowledge gain, attitude formation and change, and opened behaviour change.

2.4. Consequences of Innovations

One important thing when conducting the study of the diffusion of innovation is what the effects/ the consequences of the diffusion of innovation are. As mentioned above that when the new idea was adopted or accepted, it will give the certain impact. Consequences in the diffusion of innovation can be defined as the changes that happen as a result of the adoption or rejection of an innovation to individual or social system (Rogers, 2003).

However, it is not easy to study about these consequences, since the consequences are difficult to measure (Rogers, 2003). He states that one of the reasons behind that is the judgments regarding the consequences are almost likely unavoidably subjective and value laden (Rogers, 2003). However, Rogers (2003) identifies three dimensions of the consequences, those are:

1. Desirable versus undesirable; Desirable consequences are the functional effects of an innovation for an individual or for a social system. On the other hand, undesirable consequences are the dysfunctional effects of an innovation to an individual or to a social system. To determine whether consequences are functional or dysfunctional depends on how the innovation affects the adopters. Sometimes, an innovation can cause consequences for other individuals than its adopters.
2. Direct versus indirect; Direct consequences can be defined as the changes to an individual or a social system that occur in immediate response to adoption of an innovation or a new idea. Meanwhile, indirect consequences are the changes to an individual or a social system that occur as a result of the direct consequences of an innovation. These consequences can be called as consequences of consequences.
3. Anticipated versus unanticipated; Anticipated consequences are defined as the changes due to an innovation that are recognized and intended by the members of a social system. On the other hand, unanticipated consequences are changes due to an innovation that are neither intended nor recognized by the members of a social system. The more technologically advanced an innovation, the more likely its introduction will produce many consequences, both anticipated and latent. Unanticipated consequences describe a lack of understanding of how an innovation functions, and of the internal and external forces at work in a social system.

From the explanations above, it can be seen that there are consequences of uncertainty. As mentioned by Rogers (2003) the awareness of an innovation or a new idea will create uncertainty about how the innovation will actually function for an individual or other unit system. Then, this uncertainty motivates those people to seek information about the innovation actively, especially through interpersonal peer networks.

Therefore, it can be said that this uncertainty can be decreased to the point where an individual feels well informed enough to adopt the new idea. However, uncertainty about an innovation's consequences can never be completely removed. Rogers (2003) concludes that from those three classifications of consequences, the undesirable, indirect, and unanticipated consequences of an innovation usually go together as do the desirable, direct, and anticipated consequences.

Since the fourth objective of my study is to identify the impact or the consequences of the PNPM-PISEW project to the community and the village, it also makes sense to explore more about the literature of Social Impact Assessment (SIA). Social Impact Assessment is the process to assess or to estimate, in advance, the social consequences that are likely to follow from specific policy actions or project development, particularly in the context of appropriate national, state, or provincial environmental policy legislation (Burdge & Vanclay 1996). The process of assessment in SIA itself includes the process of analysing, monitoring and managing of both negative and positive social consequences of planned interventions (policies, programs, plans, projects) and any social change process involved by those interventions (Vanclay & Esteves 2011).

Therefore, it can be said that social consequences include all social and cultural consequences to human populations of any public or private actions that alter the ways in which people live, work, play, relate to one another, organize to meet their needs, and generally cope as members of society (Burdge & Vanclay, 1996). Further, cultural impacts involve changes to the norms, values, and beliefs of individuals that guide and rationalize their cognition of themselves and their society.

The practitioners of Social Impact Assessment (SIA) community considers that all issues that affect people, directly or indirectly, are pertinent to social impact assessment (Vanclay, 2003). Vanclay (2003) says that social impacts are changes that happen to one or more of the following aspects:

- People's way of life; The changes that occur in the way of people life are related with how the people live, work, play and interact with one another on a day-to-day basis
- The culture; The changes also can be seen in form of how their shared beliefs, customs, values and language or dialect.
- The community; The effects that occur in community can be seen from the changes in its cohesion, stability, character, services and facilities.
- The political systems; The changes regarding to political system can be seen from the extent to which people are able to participate in decisions that affect their lives, the level of democratisation that is taking place, and the resources provided for this purpose.
- The environment; The changes that happen in their environment are relate with the changes in the quality of the air and water people use; the availability and quality of the food they eat; the level of hazard or risk, dust and noise they are exposed to; the adequacy of sanitation, their physical safety, and their access to and control over resources.
- The health and wellbeing; The changes in their health and wellbeing can be seen from a state of complete physical, mental, social and spiritual wellbeing, thus it is not merely from the absence of disease or infirmity.
- The personal and property rights; The transformations of the personal and property right are in particularly about whether people are economically affected, or experience personal disadvantage which may include a violation of their civil liberties.
- The fears and aspirations; The changes in their perceptions about their safety, their fears about the future of their community, and their aspirations for their future and the future of their children.

2.5. The successful of an innovation

As mentioned before, the innovation process can be said as the complete or success process when the innovations reach the stage of 'routinizing' (Rogers, 2003). Rogers states that in this stage, an innovation has become incorporated into the regular activities of the organization and has lost its separate identity. He adds that routinization is closely related to the concept of sustainability. Rogers defines sustainability as the degree to which an innovation continues to be used after the initial effort to secure adoption is completed. Further, he says that sustainability is possible to happen if widespread participation has occurred in the innovation process, if an innovation champion was involved and if re-invention occurs.

The first important factor in sustaining an innovation by an organization is participation. Participation means the degree to which members of the organization are involved in the innovation (Green, 1986 in Rogers 2003). Sustainability of an innovation over time is more likely if many of an organization's members participate in its designing, discussing, and implementing (Rogers, 2003). In the case of community participation, it is generally more successful when the community takes much responsibility to help in all phases of designing, implementing, maintaining, supervising, and evaluating (Thwala, 2009). Furthermore, Olukotun (2008) said that:

“If communities are involved in project formulation, design and implementation, the projects are likely to be sustained, more cost effective there's more equitable distribution of project benefit, it also leads to better designed projects etc.” (p.29)

Added by Rogers (2003), Innovation decisions made collectively usually will create greater sustainability if it is compared to innovation decisions made only by authority. Moreover, Olukotun (2008) states that the sustainability of community based initiatives depends on an enabling institutional environment, which needs government commitment, and on the accountability of leaders to their communities.

The second factor related to the innovation's sustainability is re-invention. Re-invention is defined as the degree to which an innovation is modified by adopters as it diffuses. Re-invention occurs when an organization's members change an innovation as they adopt it. The members initiate to regard it as their own, and to continue it over time, even when the initial special resources are diminish or withdrawn. It will be adopted more easily if potential adopters can adapt, refine, or otherwise modify the innovation to suit their own needs.

Then, the third factor in sustaining an innovation is the involvement of an innovation champion. A Champion is an individual who is interested and involved with overall objectives and goals of the projects intensely and who plays a dominant role in many of the research-engineering interaction events through some of the stages, coping with technical and organizational hindrances and pulling the effort through its final achievement by the sheer force of his will and energy (Chakrabarti, 1974).

According to Nam and Tatum (1997) the term “champion” is used to indicate individuals who lead the innovation process. At least, there are two important champions are needed; those are technical competence and authority. Nam and Tatum (1997) believe that the technical

competence enabled the top persons to overcome the uncertainty of construction innovation; meanwhile the authority also enabled them to overcome the resistance to innovation.

The success factors in implementation of an innovation can be measured from characteristic of adopter categories. Rogers (2003) summarizes the research of diffusion in a series of generalisations under three headings as follows:

1. *Socioeconomic status;*

In term of socioeconomic status, the general characteristics of earlier adopters compare to later adopter are 1) they have more years of **formal education**; 2) they are more likely to be **literate**; 3) they have higher **social status** (income, level of living, possession of wealth, occupational prestige, self-perceived identification with a social class, and the like); 4) they have a greater **degree of upward social mobility**; 5) they have **larger-sized units** (farms, school, companies, and so, on).

2. *Personality values;*

In term of personality values, the characteristics of earlier adopters compare to later adopter are 1) they have greater **emphaty**; 2) they may be less **dogmatic**; 3) they have greater **ability to deal with abstraction**; 4) they have greater **rationality**; 5) they have more **intelligence**; 6) they have a more favorable **attitude toward change**; 7) they are better **able to cope with uncertainty and risk**; 8) they have a more favorable **attitude toward science**; 9) they are less **fatalistic**; 10) they have higher **aspirations** (for formal education, higher status, occupations, and so on).

3. *Communication behavior;*

The characteristics of earlier adopters compare to later adopters in term of communication behaviour are 1) they have more **social participation**; 2) they are more **highly interconnected through interpersonal networks** in their social system; 3) they are more **cosmopolite**; 4) they have more **contact with change agents**; 5) they have greater **exposure to mass media communcation channels**; 7) they seek **information about innovations** more actively; 8) they have a greater **knowledge of innovations**; 9) they have a higher degree of **opinion leadership**.

CHAPTER 3. RESEARCH METHODOLOGY

3.1. Qualitative Research

In order to understand certain process and to describe in depth situations, this research will use a qualitative descriptive method. The qualitative research is concerned with developing explanations of social phenomena (Hancock, 2002). Meanwhile, a descriptive study describes the specific details of situation or events (Babbie, 2013).

Hancock (2002) says that qualitative research is concerned with the social aspects of our world and seeks to answer questions about: 1) Why people behave the way they do?; 2) How opinions and attitudes are formed?; 3) How people are affected by the events that go on around them?; 4) How and why cultures have developed in the way they have; 5) The differences between social groups.

The approach used in this descriptive qualitative is the case study approach. Based on Hancock (2002) this case study research is used to describe an entity that forms a single unit such as a person, an organisation or an institution. However, this research will choose an organization or group, namely community of Mekar Sari Raya as the object to be studied since this study is interested in phenomenon that occur in one group and its characteristics that is considered as a single entity.

Further, this research will describe the four objectives as an entity that forms the process of diffusion of innovation in Mekar Sari village, such as the structure of communication channels that are used by Government, more effective communication, the consequences of diffusion of innovations and successful of diffusion of innovation.

3.2. Data Collection

Hancock (2002) mentions that there are three main methods of collecting qualitative data, those are: individual interviews, focus group discussions and observations. This research will use those all methods of collecting data. The data collection used in this research is divided in two kinds of data, primary data and secondary data:

3.2.1. Primary Data

Primary data will be gained in the form of opinion and perception of community about the process of the diffusion of PNPM-PISEW program. The primary data also will be taken from the government as the supporter of the implementation of PNPM-PISEW program. Primary Data will be obtained through focus group discussion and individual interviews.

Focus group discussion that was conducted on August 14, 2013 was based on unstructured interviews in the informal situation. However, since I need more data, I also conduct individual interviews with structured interview. Since I live far a way from the field research there are time constraint, thus I conduct individual interview by using telephone through direct calling and also short message. The short messages are used since sometimes the signal of telephone connection is bad.

Further, the most important thing that must be determined when conduct the qualitative interview is as mentioned by Babbie (2013):

“a qualitative interview is essentially a conversation in which the interviewer establishes a general direction for the conversation and pursues specific topics raised by the respondent.”(p.346)

It means that the interviewer does not need to talk more. Maximum 5 percent of the time is enough for the interviewer to talk in the interview conversation.

The respondents selected for individual interviews are local residents obtained with the sample selection based on the representation of the various job/ occupation such as Farmer, Handyman, Private Sector Worker and representation of the community organizations such as “Dusun” (unit of Village), Pengurus Mesjid”(religious organization) and “Partuha Maujana” (non-religious organization) and KPP Team. Besides interview the local residents, I also interview the Authority such as Local Government (Simalungun Government) and Village Government (Mekar Sari Raya village). The list of respondents can be seen in a table 1 as follows.

Further, the content of questions for all local resident are the same. However, since it is important to know about the KPP, there are additional questions for L3 since he is the one of the member of KPP team. Meanwhile, for authority I also made a little bit different

questions between simalungun authority and village authority. The list of questions for each participants can be seen on appendix 2.

No.	Respondent	Code	Date
1	Authority, Simalungun Government	A1	April 21, 2014
2	Authority, Village Government	A2	April 22, 2014
3	Local Resident, community organisation	L1	April 22, 2014
4	Local Resident, community organisation	L2	April 24, 2014
5	Local Resident, community organisation	L3	April 25, 2014
6	Local Resident, private employee	L4	April 27, 2014
7	Local Resident, farmer	L5	April 27, 2014
8	Local Resident, handyman	L6	April 27, 2014

Table 1. List of participants
(Source: Author)

3.2.2. Secondary Data

Secondary data will be obtained through observation/ review from books, journals, articles, theses, e-newspapers, e-magazines and internet sources. Another secondary data also can be gained from government institution, Department of Spatial Planning and Housing (*Dinas Tata Ruang dan Permukiman*) and the village government, in this case Mekar Sari Raya village. The collected data will be the location of the projects, development plan documents, and other documents related to the implementation of the PNPM-PISEW program.

3.3. Data Analysis

After collecting data, the next step is analysing the data by using descriptive-qualitative analysis through content analysis. Babbie (2013) states that qualitative data analysis is the non numerical assessment of observation made through participant observation, content analysis, in depth interviews, and other qualitative research techniques. Then, this research will describe in detail of specific situation known from data obtained from focus group discussion, individual interviews and observations. Further, Analysis is conducted by referring to the research objectives.

Hancock (2002) argues that content analysis is a procedure for the categorisation of verbal or behavioural data, for purposes of classification, summarisation and tabulation. The content can be analysed on two levels:

- The basic level of analysis is a descriptive account of the data: this is what was actually said with nothing read into it and nothing assumed about it. Some texts refer to this as the manifest level or type of analysis.
- The higher level of analysis is interpretative: it is concerned with what was meant by the response, what was inferred or implied. It is sometimes called the latent level of analysis.

Content analysis involves coding and classifying data. Some authors refer to this as categorising or indexing. The basic idea is to identify from the transcripts the extracts of data that are informative in some way and to sort out the important messages hidden in the mass of each interview. Based on explanation above, this research will use content analysis method to analyse the data gained from interview. To ease coding and classifying data, before interview conducted, the questions should be set sequentially based on the four objectives.

As content analysis, this research use software Atlas.ti. Atlas.ti is a software set of tools that supports analysis of written texts, audio clips, video files, and visual/graphic data. Meanwhile, the tools are tightly integrated and designed to support the work flow of the qualitative researcher. ATLAS.ti also includes highly sophisticated tools to help researcher to manage, extract, compare, explore, and reassemble meaningful segments of information from large amounts of data (Atlas.ti, 2014).

In using Atlas.ti, firstly all the primary data include Focus Group Discussion and Individual Interview put into the program. After that, determining codes from indicators of four objectives. For example, codes from structure of communication channels will be pattern of communication and kind of communication channels. Then, make it into more little codes; codes for pattern of communication will be downward, upward and horizontal, meanwhile codes for communication channels are government, friends, commercial and mass media. After all codes from 4 objectives are defined, then the next step is indicate all codes from the data. Make some notes to ease analysis.

3.3.1 Analysis of the structure of communication channel that is used by government

Structure of communication channels is related to the structure of organization of the program of the PNPM-PISEW. It means that the information about that structure can be gained from focus group discussion and individual interview. Moreover it also can be obtained from the structure of organization of the PNPM-PISEW program that can be found in PNPM-PISEW document such as Technical guide of implementation of PNPM-PISEW.

Besides that, it also can be gained through questions the participants, such as; how do the community of Mekar Sari Raya get the information about the PNPM-PISEW at the first time, how do they get information about the way to implement the PNPM-PISEW program and how they manage the product of the PNPM-PISEW program after it was built, in this case water provision project.

After the structure of communication channels can be identified, the next step is to identify the communication channels such as government, mass media, informal and commercial that are used in every stage (planning, implementation, and maintainance). Then after that, I will also identify the pattern of communication channels such as upward communication, downward communication and horizontal communication that occur in every stage.

3.3.2 Analysis of more effective communication

The second analysis is to identify the aspects that make the communication be more effective in the diffusion of innovation of PNPM-PISEW program in Mekar Sari Raya village. The data about those aspects/ factors will be compiled through questions to informants in focus group discussion, individual interview and also from the pattern of structure of communication channels as identified to answer the first objective.

The questions are how they community to communicate about the PNPM-PISEW program, are the community conduct meeting routinely in formal or informal situations and what is the similarity among the community (education, economy, culture, religion and etc). After that, other factors such as source, the message, communication channels and receiver also have to be identified.

3.3.3 *Analysis of the consequences of diffusion of the PNPM-PISEW program*

The third analysis is to identify the impacts/ consequences of this diffusion of innovation (PNPM PISEW) for the village and the community in Mekar Sari. To analyse the third objective, the data is compiled through focus group discussion and individual interview as mentioned above. The interviewer will ask the informants about the changes in community of the Mekar Sari Raya village in terms of physics and community behaviour as a consequence of the PNPM-PISEW implementation.

After that, I will identify the consequences whether they are desirable or undesirable and whether they are anticipated or unanticipated. Further, I will search the consequences that are included in direct and indirect consequences. Next, the social impacts will be identified, such as people's way of life, the culture, the community, the political systems, the environment, the health and wellbeing, the personal and property rights, the fears and aspirations.

3.3.4 *Analysis of factors influencing the successful of the Mekar Sari Raya village.*

The fourth analysis is to identify the factors influence the Mekar Sari Raya village more successful than many other villages in terms of diffusion of innovation of the PNPM-PISEW. Those factors can be identified from questions through focus group discussion and individual interview. The question is what are the difference of the Mekar Sari Raya community characteristics compare to other communities in other villages in terms of socioeconomic status, personality values and communication behavior?

Due to the data limitations, I will only identify two aspects of each characteristics. Concerning to economic status, I will identify whether the Mekar Sari Raya community have more years of formal education and higher social status (income) than other communities in other villages. Regarding to personality values, I will identify whether this community have greater empathy and have a more favorable attitude toward change (welcome to new ideas) than others. Meanwhile, regarding to communication behaviour, I will seek whether this community have more social participation and more highly interconnected through interpersonal networks in their social system than others.

Further, the linkage between research objectives with data needs, analysis, output and indicator can be seen in the table 2 as follows.

Objectives	Data Requirements	Sources of Data	Method of Data Collection	Method of Analysis	Output of Analysis	Indicator
Identifying the structure of the communication channels that are used by government in the diffusion of innovation of PNPM-PISEW program in Mekar Sari Raya	- Opinion, perception and additional information	- Project Leader, The village head, KPP leader, Households	- Interview, Focus Group Discussion	Content analysis, descriptive with comparison between the facts and literatures about the four main communication channels by Spence (1994) and three patterns of communication by Lunenburg (2010)	The description of structure of communication channels, from central government to the community of Mekar Sari Raya	Communication channels from central government to local government (province, district, sub district), from local government to the community of Mekar Sari Raya village.
	- Technical guide of implementation of PNPM-PISEW by the Central Coordination Team of the PNPM-PISEW	- Dinas Tarukim	- Observation			
Identifying the aspects that make the communication be more effective in the diffusion of innovation of PNPM-PISEW program in Mekar Sari village	- Opinion, perception and additional information	- Project Leader, The village head, KPP leader, Households	- Interview, Focus Group Discussion	Content analysis, descriptive with comparison between the facts and literatures about the important components in communication by Spence (1994) and the effectiveness concepts by Rogers (2003)	The lists of aspects/factors that influence communication can be more effective in the diffusion of the PNPM-PISEW program in Mekar Sari Raya village	<ul style="list-style-type: none"> - The easiness in obtaining information about the PNPM-PISEW project. - The receiver (community) understand information delivered by the sender
	- Strategic Communication of PNPM Mandiri (Pisew as a part of this program) by the Central Coordination Team of the PNPM-PISEW	- Website of PNPM Mandiri	- Observation			
Identifying the impacts/ consequences of this diffusion of innovation (PNPM PISEW) for the village and the community in Mekar Sari.	- Opinion, perception and additional information	- Project Leader, The village head, KPP leader, Households	- Interview, Focus Group Discussion	Content analysis, descriptive with comparison between the facts and literature about the dimensions of the consequences of innovation by Rogers (2003) and the social impacts by Vanclay (2003)	The list of changes in the village and the community as the results of the diffusion of innovation (PNPM-PISEW)	<ul style="list-style-type: none"> - The changes in the village; more clean, healthier and etc. - The changes in community; more independent, more prosperous and etc.
	- Inspirational Story of Independently Developing Areas by the Central Coordination Team of the PNPM-PISEW	- Dinas Tarukim	- Observation			
Identifying the factors influence Mekar Sari village more successful than many other villages in terms of diffusion of innovation of the PNPM-PISEW	- Opinion, perception and additional information	Project Leader, The village head, KPP leader, Households	- Interview, Focus Group Discussion	Content analysis, descriptive with comparison between the facts and literatures about the factors to determine the sustainability of an innovation by Rogers (2003)	The list of factors influence the community of Mekar Sari Raya can sustain to build more infrastructures by themselves compare to other villages	<ul style="list-style-type: none"> - The willingness to continue the PNPM-PISEW program eventhough financial support from government stopped (there is a sustainability of PNPM-PISEW program).

Table 2. The linkage of Research Objectives, Data needs, Analysis, Output and Indicator
(Source: Author)

CHAPTER 4. DATA COLLECTION

4.1. General Overview of Mekar Sari Raya Village

Mekar Sari Raya village is one of villages in Panei Sub District, Simalungun Regency/District, Sumatera Utara Province, Indonesia (see Figure 4.1 and 4.2). The area of Mekar Sari Raya is 4,62 km² that consists of 168m² area for paddy field, 258m² area for dry field, 23m² area for yard surround the house, and 13m² area for other functions (Document of Strategic Plan of PNPM-PISEW program of Panei Sub-regency, 2011).



Figure 3. Map of Indonesia
(source: Senarai Provinsi Indonesia, Wikipedia, 2014)

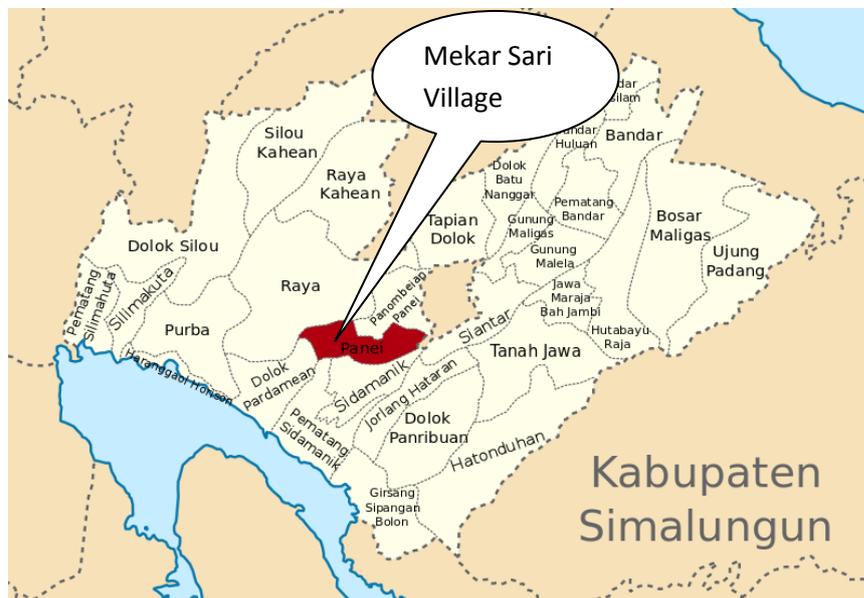


Figure 4. Map of Simalungun District
(source: Berkas: Peta Lokasi Kecamatan Panei Kabupaten Simalungun - Wikipedia , 2014)

Based on the information from the Mekar Sari Raya village document (2014), the Mekar Sari Raya village consists of six sub villages called *Huta/ Dusun*, those are Tanjung Selamat, Bahtangan,

Bahsawah, Bahkuras/ Pondok X, Pondok XV and Kampung III. The number of households in each *Huta* in 2009, at the first time the PNPM-PISEW program was introduced to the community can be seen in the table as follows:

No	Huta/ Dusun	Tahun 2009			Total population
		Households	Male	Female	
1	Tanjung Selamat	211	345	353	698
2	Bahtangan	198	291	301	592
3	Bahsawah	38	65	69	134
4	Bahkuras/ Pondok X	58	108	105	213
5	Pondok XV	55	105	98	203
6	Kampung III	20	52	48	100
	Total :	580	966	974	1.940

Table 3. Population of Mekar Sari Raya in 2009
(source: The Mekar Sari Raya village document, 2014)

The water provision infrastructure that has been built using funds from the program of PNPM-PISEW only served one *Huta* namely Bahtangan (Focus Group discussion, August 14, 2014). Now, the number of the households in Bahtangan has increased. From only 198 households in 2009 (see table 3), the number of the households becomes 204 in 2014 (see table 4). As mentioned by the village head, this increasing was influenced by the availability of the water provision infrastructure in Bahtangan.

No	Huta/ Dusun	Tahun 2014			Total population
		Households	Male	Female	
1	Tanjung Selamat	215	366	374	740
2	Bahtangan	204	309	315	624
3	Bahsawah	42	87	88	175
4	Bahkuras/ Pondok X	63	128	119	247
5	Pondok XV	59	122	117	239
6	Kampung III	22	68	62	130
	Total :	605	1.080	1.075	2.155

Table 4. Population of Mekar Sari Raya in 2014
(source: The Mekar Sari Raya village document, 2014)

From table 5 and 6, we see that the community in Bahtangan has similarity in term of religion and tribe. There are 100 % households in Bahtangan have the same religion. There are 204 households³ that have the same religion, namely Moslem (see table 5). Meanwhile, from 204 households there is only one household that is different in term of tribe. It is almost 100 % households in Bahtangan have the same tribe, namely Java (see table 6).

No	Huta/ Dusun	Religion/ households in 2014		
		Moslem	Christian (Protestant)	Catholic
1	Tanjung Selamat	214	1	-
2	Bahtangan	204	-	-
3	Bahsawah	7	23	12
4	Bahkuras/ Pondok X	42	21	-
5	Pondok XV	40	18	1
6	Kampung III	-	12	10
	Percentage :	83,8	12,5	3,7

Table 5. Population based on religion in Mekar Sari Raya in 2014
(source: The Mekar Sari Raya village document, 2014)

No	Huta/ Dusun	Tribes in 2014	
		Java	Batak
1	Tanjung Selamat	213	2
2	Bahtangan	203	1
3	Bahsawah	3	39
4	Bahkuras/ Pondok X	35	28
5	Pondok XV	34	25
6	Kampung III	-	22
	Percentage :	83,8	12,5

Table 6. Population based on tribe in Mekar Sari Raya in 2014
(source: The Mekar Sari Raya village document, 2014)

In term of education, compare to the other huta, Bahtangan has the most illiterate people. There are 71 people that do not know reading and writing, while there are 41 people that are dropped

³ Household also can be used in calculation of the number of religion since commonly in Indonesia, one household will have the same religion.

out from Primary school. Most people in bahtangan only graduate from Primary school. There are 188 people getting Primary school education and then followed by 126 people who get Junior high school education. Meanwhile, there are only 11 people get the highest education in Bachelor (see table 7).

No	Huta/ Dusun	Education									Total
		Not enter school	Have not enter school	Kindergarden	Drop out from Primary School	Primary School	Junir High School	Senior High School	Diploma	Bachelor	
1	Tanjung Selamat	48	61	31	6	261	164	143	12	14	740
2	Bahtangan	71	40	39	41	188	126	97	11	11	624
3	Bahsawah	7	18	10	-	43	39	47	7	4	175
4	Bahkuras/ Pondok X	1	21	4	2	87	47	64	4	17	247
5	Pondok XV	4	24	6	3	85	56	49	5	7	239
6	Kampung III	4	11	4	11	19	13	55	5	8	130
	Total :	135	175	94	63	633	445	455	44	61	2.155
	Percentage :	6,3	9,2	4,4	3,1	29,8	20,7	21,2	2,4	3,7	100

Table 7. Population based on education in Mekar Sari Raya in 2014
(source: The Mekar Sari Raya village document, 2014)

Further, in terms of occupation, the population in this village work as farmers and private employees in the palm plantation company nearby the village. There are around 57, 98 % households who live depend on the agriculture (Strategic Plan of Panei Sub-district, 2011).

4.2. The PNPM-PISEW Program in the Mekar Sari Raya Village

In the past, it was difficult for the Mekar Sari Raya community to get the clean water. In order to get the clean water, the adult (men) and the teenager (boys) had to walk-up to the wellspring and

bear the water around 1.5 km. Sometimes in rainy season, they could not go to the wellspring due to the slippery road. So, they will collect and use the rain water for their daily life (Focus Group Discussion, 2013).

Because of those difficulties, since 2007 the community through the village government has proposed for the water provision infrastructure to the Simalungun Government through MUSRENBANG⁴. However, until 2009 the proposed-infrastructure had not been approved yet. Fortunately, in 2009, the community of Mekar Sari Raya got funding from the government through the PNPM-PISEW program to build the infrastructure by themselves. In the PNPM-PISEW program, the government does not only give the financial support but also technical assistance through consultant (A1, L1-L6, 2014).

Through a forum namely KDS (Sector Group Discussion) the community gave their opinion and decided what the highly urgent infrastructure for the community to be built is. Since the community really needed the water provision they decided to build gravitation system based infrastructure. The community also decided to install the pipeline and take the water from a wellspring in the hill (A1, L1-L6, 2014).

At the beginning of building the water provision infrastructure process, actually there was a financial constraint. The government through the PNPM-PISEW program only gave 50 million Rupiahs for one project (it is around 4000 Euros in 2009), meanwhile the project of water provision infrastructure needed more money. The money that was given by the government can only buy 1550 m pipeline, meanwhile they need 3000 m pipeline. As a result, they needed additional cost for buying 1450 m pipeline (Focus Group Discussion, 2013)

Therefore, based on mutual agreement the community collected 42 million Rupiahs for buying 1450 m pipeline from the community. Moreover, the community also decided to install the pipeline directly into every house. For the installation, they have to collect the money from all the members of the community, ie 400.000 rupiahs per household. However, since it was impossible to collect the money as soon as possible from all the members due to the economic ability, 15 households decided to lend their money for implementing the project. Without wages and time limitation, the rich helped the poor by lending the money to the poor without interest.

⁴ MUSRENBANG (Planning and Development Meeting) is yearly agenda to discuss local development needs (Solokotakita, 2014)

Later, the poor can give the money back to the rich whenever they can (Focus Group discussion, 2013).

In the project implementation, the village head coordinated with all LKD (village community institutions). One person per household was divided into the three groups that worked in the different time. With hard work, spirit of mutual cooperation and technical support from the PNPM-PISEW program, the community finished that project in 19 days. Finally, their dream came true. Now, the Mekar Sari Raya community can enjoy the clean water from their house (Focus Group discussion, 2013).

After the water provision infrastructure was built, the community had to maintain the infrastructure. To maintain the infrastructure, the village head with the community discussed and chose the KPP team (User and caretaker group), called KPP Tirtowening. This KPP consists of Leader, Secretary, two Field Technicians, and three Financial Controllers. Since the maintenance needs money, based on the mutual agreement, the community collected money for water usage every month, ie. 1000 rupiahs per m³.

From the collected money, they can installed pipeline and distributed the water to public infrastructures such as Mosque, *Madrasah* (Islamic Religious School), the Mekar Sari Raya Village Head's Office and *Poskesdes* (Community Health Posts). Moreover they also can build a Kindergarden "Raudhatul Atfhal", a fountain in the middle of the village and etc. (Focus Group discussion, 2013; A1, L1-L6, 2014). From that money, the community also agreed to give incentive to the KPP team. Thirty percent from the collected money was given to the KPP team every month (Focus Group Discussion, 2013).

Regarding to the collected money, until December 2012, the cash balance of KPP Tirtowening headed by Bapak Sarpi'i (58 years old), a farmer with three children, reached Rp 24.488.900,- (Financial Accountability Report of KPP Tirtowening, 2013). For the future, all the members of the community expect to the continuity of the PNPM-PISEW program. They expect this program can be a medium for preserving the spirit of "gotong royong" and stimulating for building other infrastructures to improve the welfare of the village communities (The National Coordination Team of the PNPM-PISEW, 2012).

4.2.1. *The Structure of Organisation*

The role of each actor in the PNPM-PISEW program can be seen from its structure of organisation. The Central Government of Indonesia together with the provincial government of Sumatera Utara is giving aid and monitoring the activity of the PNPM-PISEW. As explained in General Principles of the Planning Stage of the PNPM-PISEW program, the central government has the important roles such as: 1) Socialization and signing the commitment document of local government; 2) Training of Master Trainer – ToMT; 3) Dissemination of Planning policy of the PNPM-PISEW; 4) Training of trainer – TOT; 5) Monitoring and evaluation; 6) Central coordination meeting; 7) Promotion of socio-economic empowerment (PSE) of province and regency at central.

Meanwhile, the role of Simalungun Regency is managing and controlling the PNPM-PISEW program implementation. The role of Panei Sub-district, the Mekar Sari Raya government and the community are participating actively. Together, they carried out the plan, the implementation, the utilization and the maintainance (General Guidelines of PNPM-PISEW, 2010). For further explanation, organisations in each government levels and in the community level can be seen as follows (The National Coordination Team of PNPM-PISEW, 2010):

1. Organisations at Central level are :

- a. *The Coordination Team*; This team consists of several ministries such as *Bappenas* (the Ministry of National Planning Board), the Ministry of Public Work, the Ministry of Home Affairs, the Ministry of Finance, the Ministry of Health, the Ministry of National Education and the State Minister for Acceleration Development Backward Regions. The Ministry of National Planning Board is the coordinator of the Structure of Organization of the PNPM-PISEW.
- b. *The National Secretariat of the PNPM-PISEW*; The National Secretariat is formed by the Central Coordination Team and domiciled in *Bappenas*. The members of the secretariat are officials of the member of the Coordination Team at national level. This secretariat has a Consultant Team called Supporting Consultant that help the secretariat in supporting the Coordination Team at central, province and regency government. The consultant gives coordination and technical assistance.
- c. *Executing Agency, Project Management Unit (PMU) and Project Implementation Unit (PIU)*; The Executing Agency of the PNPM-PISEW is General Director of Human Settlements (Cipta Karya) of the Ministry of Public Works that is entirely responsible for the program implementation. This general director forms PMU. To perform its role the

PMU is helped by three PIU from three General Directorats such as General Directorat of Human Settlements of the Ministry of Public Work, General Directorat of community & Village Empowerment and General Directorat of Local Development of Ministry of Home Affairs. Each PIU and PMU has Consultant Teams to help them in giving technical assistances to provincial government, regency government, sub-regency government, village government and community. The Consultant Team consists of Management Consultant, Training Consultant, Public Campaign and Community complaints.

2. Organisations at Provincial level are :

- a. *The Coordination Team*; The Provincial Coordination Team is set out by governour. The leader of this team is the head of *Bappeda Propinsi* (the Provincial of the Development Planning Agency) and the members are: Assistant of the Provincial Secretariat, Economic and Development Department; Community Empowerment Agency; Public Work Department; Agriculture Department; Health Department; Education Department; Regional Office of General Directorat of Treasury; and other relevant departments.
- b. *The Provincial Secretariat of PNPM-PISEW*; The Provincial Secretariat is formed by the Provincial Coordination Team and domiciled in *Bappeda Propinsi*. The members are officials from the Provincial Coordination Team. This secretariat has a Consultant Team that support the Provincial Coordination Team at provincial, regency, sub-regency and village government. This consultant consists of Provincial Management Consultant and Technical Management Consultant.

3. Organisation at Regency level are :

- a. *The Coordination Team*;The Regency Coordination Team is set out by regent. The head of this team is the chief of *Bappeda kabupaten* (Regency Planning Agency). The members are: Assistent of the regency secretariat, department of economic and development; Community empowerment agency; public work department; Agriculture department; health department; education department; regional office of general directorat of treasury; sub-regency and other relevant departments.
- b. *The Regency Secretariat of the PNPM-PISEW*; This secretariat is formed by the Regency Coordination Team and domiciled at Bappeda kabupaten. The members of this secretariat are the officials from the Regency Coordination Team. This secretariat has a KMK (Management Consultant) that helps the secretariat to support the Coordination Team at the levels of regency, sub-regency, village and also community.
- c. *Regency Unit*; The members of the unit are from the Settlement Department. This unit is set by the Ministry of Public Works based on the proposal of the regent. Regency Unit is

set out to manage the infrastructure development of the PNPM-PISEW. This regency unit consists of: The head of unit, the Commitment Maker of the PNPM-PISEW at regency level also act as the PJOK for the KSK, the Treasurer and the Examiner of warrant payment (SPP)/ publisher of warrant payment. Meanwhile, ATK and TMFK help the head of unit and PPK to do their task.

4. Organisation at Sub-regency level :

- a. *POKJA Sub-regency (Sub-regency working group)*; This working group was set by regent that consists of: the head of sub-regency as the leader. The members of this working group were the representative of relevant institution in sub-regency, headman/ village representative and the representatives of women group. This working group will get technical assistance from PIU of directorat general of Human settlements through field technical team (TTL) that is consist of Sub-regency facilitator (FK) and field technical officer (Ttl).
- b. *PJOK (Responsible person for operational activities)*; This PJOK was set by the regent based on the head of sub-regency proposal. His/her tasks are signing the administration of direct grant for community (BLM) and monitoring the implementation.

5. Village Government

The duties of a village head (headman) are to facilitate KDS (sector discussion group) activity in the planning stage, to coordinate with LKD in the implementation stage, and also to facilitate KPP in the pasca implementation stage. Regency government gives technical support to headmen through FD (Village Facilitator).

6. Organisation at Community level

- a. *KDS (Sector discussion group)*; This KDS was set by POKJA sub-regency and TTL (Field Technical Team). This group was that aim to find the best potencial and georaphic condition of the sub-regency. The group can be for one or more villages.
- b. *LKD/ LKM (Village community institution)*; This institution is community institution that have been exist and recognized by villagers and the village government, such as *Karang Taruna* (youth organization), *Remaja Mesjid/ Remaja Gereja* (religion organization), PKK (women organization) and etc.
- c. *KPP (Users and caretaker group)*; KPP was set through the village discussion facilitated by FK (Sub-regency Facilitator) and Village Facilitator (FD) and then approved by the Village head/ Headmen. KPP is the village community organization that has duties to use and to maintain the results of infrastructure developments in their areas.

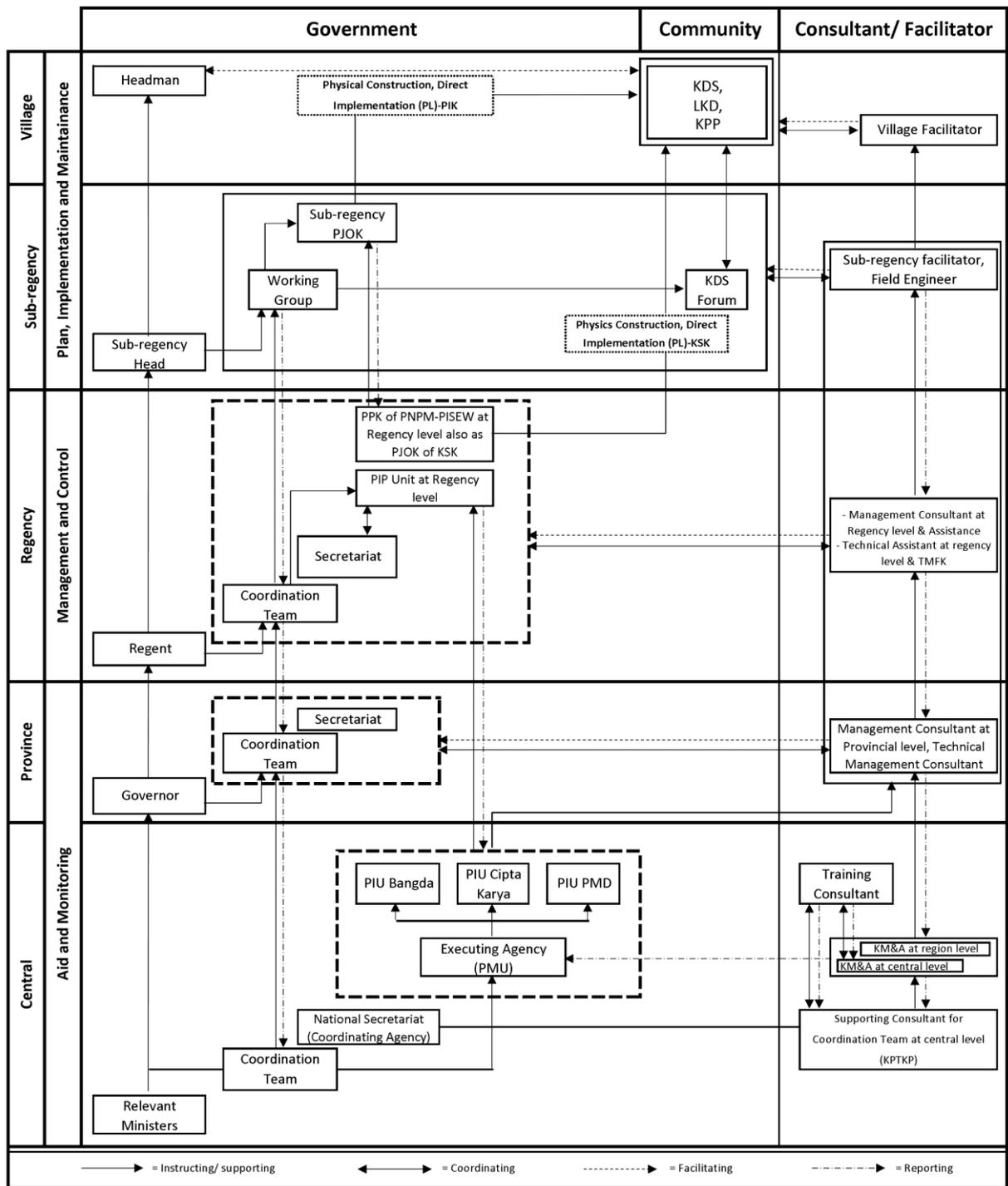


Figure 5. Structure of Management Organisation of PNPM-PISEW
(The National Coordination Team of PNPM-PISEW, 2010)

4.2.2. Strategy of communication

As mentioned in the introduction, the PNPM-PISEW program is one of the PNPM-Mandiri programs. As mentioned by local authority, to communicate the PNPM-PISEW program to the Mekar Sari Raya community is the same as to other communities in other villages that got

funding from the PNPM-PISEW program. Thus, as a part of the PNPM-Mandiri program, the PNPM-PISEW in communicating the program has to refer to the strategy of communication of the PNPM-Mandiri.

In order to create an effective communication, the central government set a communication strategy that is explained in “the Implementation Guidelines - The strategy of communication of PNPM-Mandiri (The Ministry of Coordinator of Public welfare, 2008)”. Based on that strategy, the government use various of communication channels such as personal channel, traditional media and media massa and also new media such as internet to increase the effectiveness of communication to the audience.

Communication Channels	Imaging PNPM	Activating PNPM
Personal communication: - training - discourse - discussion in village office - focus group discussion - sermon at mosque - visiting the community leaders	-	- community leader, direct beneficiaries - care group
Communication meeting	-	decision maker, program executive, Donor Institution to make the same perception about management of PNPM Mandiri
Leaflet and Booklet and also General Guidelines and other complements.	-	Benefeciaries of program executive, stakeholder
Traditional media such as puppet show	public	-
Television	Public	stakeholders
Outdoor media; banners, posters and billboards	public	benefeciaries
- radio talk & news	public	stakeholders
- newspapers	public	benefeciaries
- community radio	public	stakeholders
- Internet	public	stakeholders
- visit media	public	stakeholders

Table 8. General Strategy of communication channel use in the PNPM Mandiri
(Source: The Ministry of Coordinator of Public Welfare, 2008)

It is also explained that personal communication channel and traditional media are effective to be used in activating the community to be involved in designing and implementating the program. Meanwhile, the channel such as mass media and new media internet is used to build the awareness of stakeholders to pay attention and to be involved in the PNPM Mandiri. Since the program is one of the community based development programs, community based channel is recommended to be used. (see Table 8).

Moreover, to increase the effectiveness of transferring the message, the PNPM Mandiri also must consider the communicator. It is said by Ministry of coordinator of public welfare (2008), the important things that need to be considered regarding to the communicator or messenger of PNPM Mandiri are; 1) The messenger is a person that have high credibility (expert, full of experience, trustable) and acceptable by public; 2) The objectives and the channel that is used by the messenger must be in accordance with the public; 3) Need endorser at national level (president, ministers or the chief of high state institutions or national figures respected by community) to strenghten the identity and the image of PNPM Mandiri; 4) Need endoser from economiest/ expert of community development, opinion leader and best practice actor; 5) Choosing the massenger must consider the characteristics of target/ public.

4.3. Structure of Communication Channel in the diffusion of the PNPM-PISEW program

PPK (Focus Group Discussion, 2013) said that the way of the central government to inform the PNPM-PISEW program to the community in Mekar Sari Raya is the same as to other communities in the whole part of Indonesia. The information about the PNPM-PISEW program was delivered by the government from the higher level to the lower level; from the central government to the local governments. The central government informs the Mekar Sari Raya community through meetings/ forum discussions by the local governments. Besides that, the central government also uses other mass media such as internet, television, newspaper. Not only use those tools, through the regency government, the central government also gives posters to the community. These posters will attach on the wall of public place such as *warung*.⁵

Eventhough the government has introduced the PNPM-PISEW program through mass media such as television, newspaper and also technology communication or internet, some participants from local residents confessed that they do not get much information from those mass media. The most participants said that they get much information about the PNPM-PISEW program from the government, the consultant and friends through a discussion after “Pengajian”⁶.

Meanwhile, all participants said that in the meeting or socialization of the PNPM-PISEW program, all the community always have chances to ask everything that are unclear for them. They can ask questions to the village head and to consultant called FD (village facilitator). Not

⁵ Warung is a type of small family-owned business; often a casual shop, small restaurant/ cafe (wikipedia, 2014)

⁶ Pengajian means religious discussion by Islamic religion. It studies the history, culture and philosophy of the Islamic religion (Pengajian Islam-Wikipedia, 2014)

only ask something about the PNPM-PISEW Mandiri, they also can propose their idea to make the program run well (L1-L6, 2014).

Further, besides get financial and technical support from the government, the people in this village also have responsibilities in implementing the program. They have to do the program well. Besides that, they have a responsibility to report their expenses during the project. (L1-L6, 2014).

4.4. Factors that make communication in the Mekar Sari Raya village more effective

All the members of the community in the Mekar Sari Raya village are known have high participation level. It is seen that the Mekar Sari Raya community always attends every meeting held by the village head. At least one person per household will attend the meeting (Focus group discussion, 2013).

In order to give the community information about the PNPM-PISEW program, the village head active to gather the community and to inform them about the PNPM-PISEW program through meetings. Not only in the planning stage does the village head continually help the community by giving them as much as information regarding to the program, but also in the implementation stage and maintainance stage (Focus Group discussion, 2013).

As mentioned above that the Mekar Sari Raya community has waited for a water provision infrastructure in their village for a long time. In many times, this community proposed the water provision infrastructure to the government. However, their proposal is not approved yet. Therefore, when the PNPM-PISEW program was introduced firstly by the village head, the community was very enthusiastic. They were so happy since they know that the program will help them to have a water provision infrastructure (Focus Group Discussion, August 14, 2013).

Further, all respondents (local residents) said that in the first time the program was introduced, the community believed that they can implement this program easily. It is since the head of the Mekar Sari Raya village make them sure that the PNPM-PISEW program can be easier to implement by working together in the spirit of “gotong royong” (mutual cooperation). Moreover, the community said that the methodology to implement this program was simple. It only need ordinary tools that they were used to use (L1-L6, 2014).



Figure 6. The discussion after “Pengajian”
(Source: L2, 2014)

All participants said that in the implementation stage of the water provision infrastructure, the community is used to ask everything regarding to the implementation to the village head and also the consultant. Moreover, the community said that the village head always ask their opinion in every meeting. They can discuss about the PNPM PISEW program with the village head and their friends not only in the village meeting but also after religious meeting called “pengajian” (see figure 6) that was conducted routinely, often once in a week in a house and once in a month in mosque (Focus Group Discussion, 2013; L1-L6, 2014).

Discussing after religious meeting “pengajian” becomes possible for the Mekar Sari Raya community since they have the same religion. As mentioned by PPK (Focus Group Discussion, 2013), most villages in Simalungun Regency that get support from the PNPM-PISEW program are occupied by communities who have different religion. Thus, it is not possible for these communities to conduct informal discussion after their religion meetings.

4.5. Consequences of the PNPM-PISEW program

Since the PNPM-PISEW program was implemented in Mekar Sari Village, there are a lot of changes occur in the village and also in the community itself. The first result is that indeed they have a water provision infrastructure in their village. Just by opening up the faucet, then they can enjoy the clean water from their home as describe in figure 7. They do not need to walk and bear the water as long as 1.5 km to get the clean water. Moreover, they also do not need to collect the rain water anymore (A1-A6, 2014).

Besides getting the clean water from home easily, now this community also can build other public infrastructures. As mentioned by one of local resident, L2 (2014):

“The PNPM-PISEW program have gave us the chance to enjoy the clean water easily. Even now, we can build Kindergarden, to renovate the Mosque and etc. by using the money from the dues that was collected every month. Now, we also have a source for borrowing the money if we need the money to go to the hospital.”



(a)



(b)

Figure 7. The community can enjoy the clean water; in a house (a) and in a public health facility (b)
(Source: the village office, 2009)

He also added that all community feel satisfy about the result of the PNPM-PISEW program. They can take a bath at least twice in a day. Since it is easy to get the clean water, some people establish small business around their house such as catfish farms and motorcycle wash. At the first time, he only made one fish pond beside his house. However, since the result is good, he added two more fish ponds.

It can be seen that the PNPM-PISEW program has change the community become more creative and more independent. As A1 (2014) says:

“..., the PNPM-PISEW program has inspired the community to be more creative. The community finally realizes that they can build other infrastructure by themselves without financial support from the government.”

Therefore, since this community needs money for maintainance, they have an idea to collect money every month as dues of water usage. Then, from that money, this community can maintain the water provision infrastructure and also build other infrastructures. Some activities that have used the dues from 2009 until 2013 are as follows:

1. Fixing pipes that were broken because of the natural hazard (Rp 9.000.000,- or around € 720)
2. Making concrete slab for supporting road infrastructure (Rp 2.500.000,- or around € 200)
3. Support finance for building Kindergarden TK Rhaudathul Athfal (Rp 4.000.000,- or around € 320)
4. developing retaining wall to protect the road (Rp 1.500.000,- or around € 120)
5. developing a fountain (Rp 2.000.000 or around € 160)
6. Installing distribution pipes to public infrastructure (Rp 1.000.000,- or around € 80)
7. Giving loan without wages for the members that need cost for medication around Rp 1.000.000,- (around € 80) until Rp 3.000.000,- (around € 240). Repayment is per month and during one year.
8. Building credit unions (Focus Group Discussion, August, 2013)

From the explanation above we can say that the PNPM-PISEW program has influenced to the physical appearance of the village. As said by A2 (2014), the Mekar Sari Raya village become neater and more beautiful since the community built fountain in the middle of the village by using the dues (A2, 2014). It is in line what A1 (2014) says:

“At the first time I came to this village I see that this village was quite barren. It might be because of the lack of water. In that time was a dry season. Flowers were rarely to be found in the yard. Now, I see that yards are full of flowers. Moreover this village becomes neater. From the dues of water usage, now the community can build kindergarden and other infrastructures. Moreover the money from the dues can be lent by the community that needs cost for medical service. Besides that I see that now the community can get additional income by establishing new business such as catfish and motorcycle wash businesses.”

4.6. Factors that make the Mekar Sari Raya village more successful than other villages

One thing that makes the community in Mekar Sari Raya different from other communities is eventhough the water provision infrastructure has been built, the community still gathers together to discuss about the maintainance of that infrastructure. As mentioned in Focus Group Discussion (2013):

“We see that this community is different from the other communities that surround them. This community has more kind and nice personality. They are more welcome to the government program. Their willingness to involve in the PNPM-PISEW program from beginning and after the project finished is the main capital that makes this community more successful than other communities”. Moreover, compare to other villages, the community in this village still also has stronger feeling about “gotong royong”.

Meanwhile, based on the interview with one of the officers of the Simalungun government A1 (2014), there are three main points to describe the Mekar Sari Raya community, those are: 1) they have the willingness to improve their quality of life, 2) they have stronger character of “gotong royong” than other communities, 3) there is a strong relationship among them. This community believe in one of the Indonesian proverbs that says they will be stronger and can do everything if they are gathered together.

Besides their willingness, the community in Mekar Sari Raya village also has a close relationship with each other. They have high spirit of mutual help. The willingness of the Mekar Sari Raya community to stay involve was not only shown by contributing in labor, but also by giving their money for the project. The close relationship has made the rich lend their money to the poor without interest for the project at the implementation stage (Focus Group, 2013; A2, 2014). Moreover, the community also trusts the KPP team to manage the dues. As the head office (Focus Group Discussion, 2013) said that:

“In order to attract the community to be involved, I always try to make them trust us. Therefore, as the head of this village, I always control the KPP (Group of Users and Keepers) in maintaining the collected money besides maintaining the infrastructure of the water provision itself”

Therefore, L3 (2014) said that the KPP team so far did not face any difficulty to collect the dues from the communitiy. Hence, the dues per month is around Rp 5.000,- until Rp 7.000,- per month per households. The dues cost is cheaper than the cost of water from Pipeline Company. Most the members of the community drove their dues directly to the KPP on time. However, sometimes some households, in this case the poor, cannot pay the dues on time. For them, the KPP team has gave compensation such as giving them a chance to pay the dues double in the next month, or a chance to pay without time limitation, or sometimes the rich will help the poor.

Further, the village head (Focus Group discussion, 2013) says that besides the community itself, KPP has an important role for their success. He says that this team has worked hardly with big responsibility to maintain the water infrastructure and to manage the collected money from the dues every month. This team consists of people who have background as being leaders and working with high dedication. For example Mr. Sarpi'i, the leader of KPP is the leader of Partuha Maujana⁷; Mr. Harsoyo, the field officer of KPP, is the Gamot (the leader of Huta) of Bahtangan; and Mr. Juni Hartono, Supervisory Comitee, is youth leader and administrators of mosques. Meanwhile, Mr. Sartoto, the field engineer is known as a hard worker.

Moreover, this KPP also has a good management. These are the water management that is made based on mutual agreement of the Mekar Sari Raya community (Focus Group Discussion, 2013); 1) Schedules for checking damage pipe and doing mutual help to clean up the spring, 2) Management and member meeting (financial reporting) is held once in a year, 3) Management meeting is held once in three months (quarterly), 4) The payment due date is the 5th of each month and will be subject to penalties in case of late, 5) Every household are charged by the dues Rp 2000/month (around € 1.35 per month) + the cost of water usage, Rp. 1000/month (€0.70 per month). The incentive for the team of KPP is 30% of the total dues each month; average total dues each month is around Rp 1.300.000,-

Moreover, besides the community and KPP, the village head also has an important role in the successful of the PNPM-PISEW implementation in the Mekar Sari Raya village. The head of the village, Mr. Kasiandy is known always accompany the KPP in doing their work. As he said (Focus Group discussion, 2013):

“I know that money can be source of the discordance. If the money is not transparent, this KPP cannot work for a long time. Therefore, I always say to the KPP to note the whole the flow of the money, in and out.”

Mr. Kasiandy says that the financial report is reported by KPP every six months to the community. Usually the KPP invites the community to hear the report in a meeting. Besides in the meeting, the community also can see the report in the public places such as mosque and warung (small shop or simple restaurant) in the village.

⁷ Partuha Maujana Simalungun is a socio-cultural institution that stands above the need to preserve the art and culture of Simalungun and to lift it up to the surface and to empower Simalungun resources including human resources (Partuha Maujana Simalungun on facebook, 2014)

CHAPTER 5. ANALYSIS

5.1. Structure of communication channel in the diffusion of the PNPM-PISEW program

As mentioned in chapter 4, to communicate the PNPM-PISEW program to the Mekar Sari Raya community is the same to other communities in other villages in the whole part of Indonesia that get funding from the PNPM-PISEW program. The information about the PNPM-PISEW program was delivered by the government from the higher level to the lower level; from the central government to the local governments. Besides that, the government also used mass media such as television, newspapers, posters and etc. However, the Mekar Sari Raya community do not only depend on the direct information given by the government. They are also active to seek the information through informal discussion after “pengajian”. They more like to seek information through informal discussion than through mass media such as newspaper and posters. It might relate to the illiteracy of some people in this village.

Therefore, from four channels mentioned by Spence (1994), we can see that there are only two channels used by the central government to communicate the PNPM-PISEW program to the Mekar Sari Raya community, those are government channels and mass media channels. The government channels include local governments such as Simalungun government (regency), Panei government (sub-district) and Mekar Sari Raya government (village) that participate to give information to the Mekar Sari Raya community. Meanwhile mass media channels used by the government to deliver information to the community are internet, television, newspaper and poster. As an addition, beside those channels, there is an informal channel that initiated by the community itself. It seems that the community also active to seek the information even though they are illiterate and have low level of education. It means that the illiteracy is not an obstacle for the community to seek the information since they have an informal channel.

Furthermore, even though the government uses direct communication and also many mass media including high-tech communication such as internet, it does not have much influence to the community. The community does not use this media to seek the information. It might relate to the low level of education and also the illiteracy of this community. Moreover, it is difficult to find the internet facilities in that village. Further, there is not any commercial channel used by the government. It might be because this program is a government program. As it is known, a government program is a non-profit oriented program.

In terms of communication patterns, there are three communication patterns are found in the structure of communication channels in the PNPM-PISEW program as identified by Lunenburg (2010), those are downward, upward and horizontal. The downward communication occurs when the government informs the community through the local governments and mass media. From the structure of management organization of the PNPM-PISEW, it is seen that the downward can be found in the form of instruction/ support from the higher level to the lower level. For example from the central government through the Planning Board Ministry to Governors or from consultants at central level to consultants at provincial level and so on.

Meanwhile, the upward happens when the community asks more explanation about the PNPM-PISEW program to the local government especially to the village government. Besides that, this pattern also occurs when the community reports the use of money in the PNPM-PISEW implementation to the government. Further, it is clear that from the structure of management organization of the PNPM-PISEW, this pattern is seen in the form of reports from the lower level to the higher level. For example work group at sub-district level must report about the implementation of the PNPM-PISEW program to the Coordination Team at Regency level.

The last, the horizontal communication occurs when the community discusses about the PNPM-PISEW program with consultant and also with their friends after “Pengajian”. Based on the structure of management organization of the PNPM-PISEW, this pattern is in the form of coordination that usually occurs between the Consultant and the Coordination Team at the same level.

From the explanation above, we can see that the structure of communication channels used by the central government can be said as a formal structure. This structure is also in accordance with the structure of management organization of the PNPM-PISEW. Meanwhile, the using of communication channels is different in each pattern. For example in downward communication, the channels used are government channels and mass media channels. Meanwhile in upward and horizontal communication, channel used is government channels. Besides that, there is other horizontal communication occur in informal situation. This communication use interpersonal media. Further, the analysis of the structure of communication channels used by the government can be seen in the table 9 as follows:

No	Code	Communication channel				Pattern of communication		
		Mass Media	Government	Commercial	Informal/ (friends)	Upward	Downward	Horizontal
1	FGD	internet, television, newspaper & etc. and poster.	From central government to province govt. & regency govt. then to suc-district govt. & village govt. until to the community	-	Friends in "Pengajian"	Financial report from the community to government through Simalungun government, questions from the community to the village head	Information from government to community	Communication between community with consultant (FD)
2	A1	Internet, television, newspaper and posters	From central govt. to province & regency govt. then to village govt. then to the community	-	Friends in "Pengajian"	-	Information from government to community; soialization	Communication between community with consultant (FD)
3	A2	Television, newspaper, posters	From regency & sub-district govt. to the village head then to the community	-	Friends in "Pengajian"	-	Information from government to community;socialization; discussion	Communication between community with consultant (FD)
4	L1	Television, newspaper, posters	Financial report from the community to government through Simalungun government	-	Friends in "Pengajian"	Financial report from the community to government through Simalungun government, questions from the community to the village head	Information from government to community;	Communication between community with consultant (FD)
5	L2	Television, newspaper, posters	Financial report from the community to government through Simalungun government	-	Friends in "Pengajian"	Financial report from the community to government through Simalungun government, questions from the community to the village head	Information from government to community	Communication between community with consultant (FD)

No	Code	Communication channel				Pattern of communication		
		Mass Media	Government	Commercial	Informal/ (friends)	Upward	Downward	Horizontal
6	L4	Television, newspaper, Posters	Financial report from the community to government through Simalungun government	-	Friends in “Pengajian”	Financial report from the community to government through Simalungun government, questions from the community to the village head	Information from government to community	Communication between community with consultant (FD)
7	L5	-	Financial report from the community to government through Simalungun government	-	Friends in “Pengajian”	Financial report from the community to government through Simalungun government, questions from the community to the village head	Information from government to community	Communication between community with consultant (FD)
8	L6	-	Financial report from the community to government through Simalungun government	-	Friends in “Pengajian”	Financial report from the community to government through Simalungun government, questions from the community to the village head	Information from government to community	Communication between community with consultant (FD)

Table 9. The Analysis of The Structure of Communication Channels

(source : author)

5.2. Factors that make communication in Mekar Sari Raya village more effective

It can be denied that the main factor that makes the communication of the PNPM-PISEW in the Mekar Sari Raya village can be more effective since the characteristics of people within this community is more homogenous. Since they have the same religion/belief, it is relatively easier for the community to conduct an informal discussion about the PNPM-PISEW after “pengajian”. Further, the similarity in terms of tribe has made the communication become easier since they have similar language. Moreover, the social status as being farmers make them have the same feeling about their needs. As can be seen, less homogeneous in other villages have made the communication a little bit difficult. As a consequence, it is impossible for them to conduct informal discussions after religious meetings. Moreover, they also have different language and feeling.

Other factors such as four components in communication mentioned by Spence (1994) also play important roles to make the communication more effective. Firstly, in terms of source or sender, the government plays a role as a source or a sender of the information to the community. The central government conveys the information in accordance with the structure of the organization of the PNPM-PISEW Program. Based on that structure, the government from the higher level delivers the information to the lower level, for example from central government to provincial government, then from provincial government to the regency/ district government and so forth until to the community. The communication is more effective since the lower position generally will obey the higher. The Mekar Sari Raya community were also known always obey what their village head said. It might be because the community always trusts on their village head. In the case of the PNPM-PISEW program, it is seen that the community trust their village head since the village head has made them sure that the PNPM-PISEW program is easy to implement. In addition, they also obey the village head since they can see that the government not only gives them the information about the PNPM-PISEW program but also gives them financial and technical support.

Secondly, in terms of the message, it is seen that there are two way flows of communication that are occurring in this community. In this way, the community will be more familiar with the PNPM-PISEW program. Interestingly, in the Mekar Sari Raya community, the two flows of communication do not only occur in formal discussions, but also in informal discussions after “Pengajian”. The two flows of communication in informal situation is conducted routinely, often in a week. Thus, it gives more opportunity to the community for questions and discussions about the PNPM-PISEW.

Thirdly, the communication channels also have an important role in order to make the community understand about the PNPM-PISEW. The central government informs the community about the PNPM-PISEW program not only by using human channel but also technological channel such as internet. However, in the case of Mekar Sari Raya village, the use of internet does not have much influence. The most influential communication channel for this community is the government itself and also informal channels through discussions after “pengajian”. It means that communication in the Mekar Sari Raya community through human channels is more effective than through technological channels.

Fourthly, in terms of the receiver, the Mekar Sari Raya community also can be said as one of the factors that make the communication more effective. This community is known can modify the information received from the government to make the communication more effective. To make the PNPM-PISEW program easier to understand, the Mekar Sari Raya community interprets this program as a government program that can be implemented by working together in a spirit of “gotong royong”. Besides that, as has been mentioned above this community also use the informal meeting such as “pengajian” to discuss about the PNPM-PISEW. Usually, after the religious meeting, they can talk everything about the village needs include the PNPM-PISEW program in a relax situation and in a family sphere. Indeed, this situation makes the information can be delivered easily.

From the explanation above, we can see that the homogeneity is the main factor that makes the communication more effective. Then, it is also supported by four factors such as source, the message, communication channels and receiver. It means that not only the source makes the communication more effective, but the receiver also. Thus, it makes them easier to implement the program and also to diffuse the PNPM PISEW program to their village development. Further, the analysis of the effective communication can be seen from table 10 below.

No	Source of Data	Similarity/ Homogeneity	Source/ Sender	The message	Channels of communication	Receiver/ Receptient
1	FGD	-	Information comes from higher to lower level	Two flows of information through KDS	Human and technological channels	-
2	A1	-	Information comes from higher perceived position (central to local)	there are two flows of information from higher to lower level & from lower to higher level (discussions to help clarification)	Human and technological channels	-
3	A2	-	Information comes from higher perceived position (local to village)	there are two flows of information from higher to lower level & from lower to higher level (discussions to help clarification)	Human channels are more effective: discussion in the village meetings and after “pengajian”	Pnpm is a program that can be done by “gotong royong”
4	L1	-	Information comes from higher perceived position/ the village head (the village head to the community)	there are two flows of information from higher to lower level & from lower to higher level (discussions to help clarification)	Human channels are more effective: discussion in the village meetings and after “pengajian”	Pnpm is a program that can be done by “gotong royong”
5	L2	-	Information comes from higher perceived position/ the village head (the village head to the community)	there are two flows of information from higher to lower level & from lower to higher level (discussions to help clarification)	Human channels are more effective: discussion in the village meetings and after “pengajian”	Pnpm is a program that can be done by “gotong royong”
6	L3	-	Information comes from higher perceived position/ the village head (the village head to the community)	there are two flows of information from higher to lower level & from lower to higher level (discussions to help clarification)	discussion in the village meetings, the head village’s house and after “pengajian”. Sometimes from newspaper.	Pnpm is a program that can be done by “gotong royong”

No	Source of Data	Similarity/ Homogeneity	Source/ Sender	The message	Channels of communication	Receiver/ Receptient
7	L4	-	Information comes from higher perceived position/ the village head (the village head to the community)	there are two flows of information from higher to lower level & from lower to higher level (discussions to help clarification)	Discussion after pengajian, sometimes from television, newspaper, poster	Pnpm is a program that can be done by "gotong royong"
8	L5	-	Information comes from higher perceived position/ the village head (the village head to the community)	there are two flows of information from higher to lower level & from lower to higher level (discussions to help clarification)	Discussion after pengajian, sometimes from newspaper	Pnpm is a program that can be done by "gotong royong"
9	L6	-	Information comes from higher perceived position/ the village head (the village head to the community)	there are two flows of information from higher to lower level & from lower to higher level (discussions to help clarification)	Discussion after pengajian,	Pnpm is a program that can be done by "gotong royong"
10	The Mekar Sari Raya Village Document	Similar in religion and tribe	-	-	-	-

Table 10. The Analysis of The Effective Communication
(source : author)

5.3. The Consequences of the PNPM-PISEW Program

The PNPM-PISEW program has made a lot of changes in the community and in the village itself. As mentioned by Rogers (2003), the consequences can be desirable or undesirable. It is clear that in the case of the Mekar Sari Raya community, most consequences in the implementation of the PNPM-PISEW project are desirable. Besides enjoying the clean water, this community now can enjoy other developments in their village. Therefore, it is quite difficult to see the undesirable consequences since all the community seems to be satisfied with the results of this program. Moreover, there is not any complaint from the community as a consequence of this PNPM-PISEW program.

However, looking more detail to the empirical data, actually there is an undesirable consequences experienced by an individual/ a household. In the past, this household is used to sell the clean water to the Mekar Sari Raya community. Since the water infrastructure was built, indeed the Mekar Sari Raya community does not buy the water from him anymore. The income of this household slightly decrease since the water provision infrastructure was built by the PNPM-PISEW program. However, it is not a big problem since selling the clean water is not his main livelihood.

Directly, the PNPM-PISEW program, in this case the development of water provision in The Mekar Sari Raya village makes the community's life healthier. Now, they do not need to use the rain water for their daily live. Furthermore, indirectly this project has increased the community capacity to build other infrastructures without support from the government. Further, physically the consequences can be seen from the village environment. Now, the community has the tidy environment since the road and the sewerage were built. A fountain in the middle of the village also adds the beauty value for the village. Economically, the community can raise their income by building fish pond and also motorcycle wash nearby their houses.

Further, since the community has waited for the project of water provision for a long time, they seem to anticipate the bad consequences. To prevent the bad consequences, every stage, from the planning stage, the implementation stage and until the maintainance stage, this community always asks the consultant regarding to the technical matters. Moreover, they are also carefull to make the decisions about their village needs. Every decision is made through the community discussions. In the discussions all the members of this community have the same voice to express their ideas or opinions.

The changes that happen in this community also can be identified as social impact as mentioned by Vanclay (2003). There are eight social impacts cause by the PNPM-PISEW program. First, in terms of people's way of life, it is seen that since the water infrastructure was built, the men and the boys do not need go far away to take the clean water. Now, the adult have more time for leisure, even the teenagers have more time for playing and studying.

Second, in terms of the culture, there is not any significant change occur to the Mekar Sari Raya culture. The culture is remain the same before and after the PNPM-PISEW program is implemented. It might be because this community implemens the program by themselves. There is not any outsider present in this village caused the PNPM-PISEW program that can influence the Mekar Sari Raya culture. As mentioned by Vanclay (2003) the present of the outsider can cause changes on culture. Interestingly, eventhough the culture does not change, the custom such as mutual cooperation "gotong royong" become stronger since this community implements the program by this custom.

Third, the existing of the PNPM-PISEW program also makes many changes on the community itself. Since the Mekar Sari Raya community was involved in all the program stages, the ability of this community in planning, operasional and maintainance increase. In line with that, the ability of the community in administration also increases, for example making the financial report. Besides that, the PNPM-PISEW program has srengthened the social capitals. Since they have to implement the PNPM-PISEW program together, the relationship among the members becomes stronger. Furthermore, after the project of the clean water infrastructure by the PNPM-PISEW program was finished, this community still continues to develop. They can build other infrastructures without money from the government. The community of Mekar Sari Raya village has higher self-confidence to determine the developments in their village by themselves. Now, they become more creative and independent.

Fourth, regarding to political systems, since the PNPM-PISEW program present in the Mekar Sari Raya village, the voices of the Mekar Sari Raya community are getting more to be considered. Now, the community has been used to involve in making decisions regarding to the village needs. They decide what kind of infrastructure that they want to be built in their village. The community has more power in making the decisions. Further, in line with the process of making the joint decisions by discussions, the level of democratisation also become higher.

Fifth, regarding to the environment, since the Mekar Sari Raya village got supports from the PNPM-PISEW program to build the water infrastructure, the quality of water used by the Mekar Sari Raya community becomes better. They do not need to use the rain water anymore for drinking, cooking, bathing and other uses. Moreover, they can build good sanitation in their house since the clean water is available in their house.

Sixth, in terms of the health and wellbeing, the Mekar Sari Raya community's become healthier since they consume the clean water from the PNPM-PISEW program. Not only for cooking and drinking, the community also can take a bath at least twice in a day. Further, since they get clean water easily, they can make fish ponds and build motorcyclewash business in their yard. As a result these people can get additional income and increase their well-being. Moreover, the land price in the Mekar Sari Raya village also increases due to the availability of the clean water.

Seventh, as have been mentioned above, the changes in the personal and property rights also occur on one household. This household usually sells the clean water to the Mekar Sari Raya community. However, since the water infrastructure built by the community through the PNPM-PISEW program, this household cannot sell the water anymore. Indeed, this household has lost his additional income eventhough it is not too significant since he still have main livelihood.

Eight, regarding to the fears and aspirations, since the PNPM-PISEW program present in the Mekar Sari Raya village, the community in this village realize that they cannot depend much on the government to develop their village. They realize that they can develop their village by themselves and make it better for the future. Therefore, this community still maintains the water infrastructure to keep its condition stay good. Besides that, they also built other infrastructures such as kindergarden, fountain, credit unions and etc to make their village better for the future.

Further, from the explanation above, we can see that generally the most of consequences of the community based development program such as the PNPM-PISEW in Mekar Sari Raya community are positive, either for the village environment or for the community itself. This study complements the study conducted by Asnudin (2009) in the implementation of PPIP⁸ in Central Sulawesi Province. He said that the consequences of PPIP include 1) economic consequences such as reducing expenditure to buy water, increasing land price and increasing land function; 2) other consequences such as increasing the ability in planning, operational and

⁸ As mentioned in Chapter 1, PPIP (*Program Pembangunan Infrastruktur Perdesaan*) is The Rural Infrastructure Development Program. Similar with the PNPM-PISEW program, this program is also the community based development program under the PNPM Mandiri.

maintainance, increasing the ability in administration, having good environment and strengthening the social capitals by establishing the KPP (users and caretaker group). However, not like in the case of the Mekar Sari Raya community, this study does not mention independent as a consequence of this program. Perhaps, the communities in Central Sulawesi Province have not arrived at that stage. Further, the analysis of the consequences of the PNPM-PISEW program in Mekar Sari Raya village can be seen in the table 11.

Changes		Source								
		FGD	A1	A2	L1	L2	L3	L4	L5	L6
people' way of life	Since they have clean water they do not need to walk up anymore; adult have more time for working and have leisure time, teenager have more time for playing and studying.	√	√	√	√	√	√	√	√	√
The culture	-	-	-	-	-	-	-	-	-	-
The community	More creative and more independent (build infrastructure without financial support from government)	√	√	√	√	√	√	√	√	√
The political systems	-voices of community getting more to be considered.	√	√	√	√	√	√	√	√	√
The environment	Availability of good quality of clean water	√	√	√	√	√	√	√	√	√
The health and wellbeing	The availability of the clean water is relate with the health;additional income from fish ponds and motorcyclewash	√	√	√	√	√	√	√	√	√
The personal and property rights	Only one household loose their income since there is not anymore people buy water from them.	√	√	-	-	-	-	-	-	-

Changes		Source								
		FGD	A1	A2	L1	L2	L3	L4	L5	L6
Direct vs indirect	<i>direct:</i> get water easily; <i>indirect:</i> more infrastructure were built	√	√	√	√	√	√	√	√	√
Anticipated vs unanticipated	<i>anticipated:</i> since there is sustainability development (after building an infrastructure continued to build others; <i>unanticipated:</i> -	√	√	√	√	√	√	√	√	√

Table 11. The Analysis of The Consequences of The PNPM-PISEW Program
(source : author)

5.4. Factors that make the Mekar Sari Raya village more successful than other villages

Socioeconomic status is one of the successful factors identified by Rogers (2003) in the diffusion of innovation. However, in the case of Mekar Sari Raya community, greater socioeconomic status cannot be said as a factor that can make the Mekar Sari Raya more successful than other villages. It is because this community has similar social status such as education and income with other communities surrounds this village. Conversely, eventhough there are more illiterate people in this village, this village can more successful than other villanges in implementing the PNPM-PISEW program.

Meanwhile, in terms of personal values, it is seen that the successful in the diffusion of the PNPM-PISEW in the Mekar Sari Ray village have been much influenced by their personal values. Compare to other communities in other villages, this community is known more open to new ideas. At the first time the PNPM-PISEW program was introduced, this community was seen more enthusiastic than other communities in other villages. It can be seen that all the community always attends meetings conducted by the village head. This community looks more active than other communities to seek the information about that program. It is different if it is compared to other villages. This community seems more enthusiastic to make their village better. Moreover, they also look more emphaty to the outsider. This value makes the information about the PNPM-PISEW from government easier to be delivered to the community. Further, we can say that the characters such as more open to new ideas and greater emphaty also makes the communication more effective.

Source	Socioeconomic status		Personality values		Communication behaviour	
	education	income	Welcome ideas	emphaty	Interconnected-ness	Social participation
FGD	Have the same education	Have the same income	welcome to government program	welcome to others	Have strong family feeling	More likely to participate
A1	-	-	willingness to improve the quality of life	-	Strong relationship	Have strong character “gotong royong”
A2	-	-	welcome to the new ideas	-	Have strong family feeling	Have strong character “gotong royong”
L1	-	-	-	love peace (no cofrontation)	-	Have strong character “gotong royong”
L2	-	-	-	-	-	Have spirit of “gotong royong”
L3	-	-	-	-	-	-
L4	-	-	-	-	Have strong family feeling	-
L5	-	-	-	-	-	-
L6	-	-	-	-	Have strong family feeling	Have strong character “gotong royong”

Table 12. The Analysis of The Successful Factors
(source : author)

Further, in terms of communication behaviour, interconnectedness and social participation are also the important factors that make the Mekar Sari Raya community more successful than other communities in other villages. This community is known have higher social participation. Compare to other communities, they have stronger character of “gotong royong”. It is seen from their willingness to participate in the PNPM-PISEW program from the beginning until the end of

the process of the program implementation. Not like in other communities, KPP in this village is still working until now. Moreover, compare to other communities, this community has stronger family feeling that can bind them in a solid community. It is seen that all the members can trust each other. This community trusts the KPP team can manage their money. This good relationship, indeed, makes them can work together with the spirit of mutual help “gotong royong”.

From the explanation above, it is seen that from three factors mentioned by Rogers (2003) there are only two factors that make the Mekar Sari Raya community more successful than other communities in other villages in the diffusion of the PNPM-PISEW program. Those factors are the personality values and the communication behaviour. Eventhough Rogers (2003) mentions that the higher socioeconomic status can determine the successful in the diffusion of the innovation, this factor does not make the Mekar Sari Raya village more successful than other village. Hence, we can say that the low level of education and illiteracy are not the hindrances to make this community more successful. Further, the analysis of the factors makes the Mekar Sari Raya village more successful than other villages can be seen in the table 12.

CHAPTER 6. CONCLUSION AND RECOMMENDATIONS

6.1. Conclusion

The PNPM-PISEW program has been well known can reduce the poverty in Indonesia, especially in rural areas. Generally this program has succeeded to meet the community need for the basic infrastructure. Because of this program, now they can enjoy the clean water in their houses. Moreover, indirectly this program has triggered the ability to develop their village without the financial support from the government. Therefore, this study aims to explain about the process of the diffusion of innovation, in this case the PNPM-PISEW program in the Mekar Sari Raya village.

Then, to explain the process, I propose four research questions, those are: 1) How is the structure of the communication channels that are used by the government in the diffusion of innovation of PNPM-PISEW program in Mekar Sari Raya village?; 2) How can the communication be more effective in the diffusion of innovation of PNPM-PISEW program in Mekar Sari Raya village?; 3) What are the results of diffusion of innovation (PNPM-PISEW program) for the Mekar Sari Raya village and its community?; 4) Why is Mekar Sari Raya village more successful than many other villages?. Then, based on those questions, I make some notes as can be seen below:

1. The structure of communication channels used by the government to inform the community in Mekar Sari Raya village is generally the same with other villages. Since the PNPM-PISEW program is a government program, the government uses a formal structure. In this formal structure, the government use upward, downward and horizontal communication. Moreover, from four channels mentioned by Spence (1994), there are only two channels used by the central government in communicating the PNPM-PISEW, those are government channel and media channel. However, due to the low level of education and the high number of the illiterate people in this village, the Mekar Sari Raya community has initiated an informal channel after religious meeting “pengajian” as a media to discuss about the PNPM-PISEW. From the structure of communication channels, this informal channel is used at horizontal communication. Therefore, I can argue that this village is different with other village, since they do not only depend on the structure of communication channels provided by the government. The Mekar Sari Raya community know their capacity, thus they had tried to find the channel that is in accordance with their condition.
2. In terms of effective communication, since the members of the Mekar Sari Raya community has the same religion, the community can conduct discussions about the PNPM-PISEW program after religious meeting such as “pengajian”. In this informal situation, usually the

community will be more confident to give their ideas and also to ask for clarification. Moreover, besides the similarity in religion, this community also similar in socioeconomic status as being farmers and also similar in tribe as javaness. These similarities indeed make the communication more effective since they have the same needs and also language. Therefore, we can say that homogeneity is one of the factors makes communication more effective in the Mekar Sari Raya village. Meanwhile, the other four factors are 1) *the source or the sender* of the information is the government itself. Come from the higher position makes the information easier to be delivered, since the lower position usually will obey the higher; 2) *the message* is not only delivered to the community, but also discussed with them. The two ways of communication makes the community more familiar with this program; 3) *the communication channels* used by the government are government and mass media channels. However, due to the low level of education and illiteracy, this community uses other channel such as informal channel instead of mass media to make the communication more effective. This informal channel is used in informal discussions after “pengajian”; 4) *the receiver*, in this case the Mekar Sari Raya community, defines the PNPM-PISEW program as a program that can be done together with the spirit of “gotong royong”. It makes this community can understand the program easier. Besides that, as mentioned above, this community is able to choose channel that more appropriate for them to seek the information. Discussions after “pengajian” in relax situation and in a family spere make the information about the program can be delivered easier;

3. The consequences occur in the diffusion of the PNPM-PISEW in Mekar Sari Raya are desirable and anticipated. It is “desirable” since the water infrastructure resulted from the PNPM-PISEW program has provide the clean water for them. Meanwhile, it is “anticipated” since there is the sustainability of the development in this village caused by the PNPM-PISEW program. It is interesting to point out, besides making the direct effect such as the availability of the clean water, the program also produce the indirect effects. This indirect effects are changes in social systems, such as people’s way of life (the men have more time for leisure and the teenagers have time for playing and studying), the community (they are more creative), the political systems (they are more participate on giving the ideas and make the decisions), the environment (the clean water in this village is available), the health and wellbeing (the land price and income increase), the personal and property rights (one household loose their additional income since there is not any household buy water from them) and the fears and aspirations (emerge the aspirations to make better future by building the Kindergarden, giving loan without interest and etc.).

4. From three factors mentioned by Rogers (2003), there are only two factors that make the Mekar Sari Raya community more successful than many other villages, those are 1) their personal values; not like other communities that have less empathy to people and apathetic to the new ideas, this community is known more wellcome to people and also to the new ideas. As can be seen, while other communities are reluctant to attend the meetings, this community looks more enthusiastic than other communities to attend the meetings conducted by the vilage head to discuss about the PNPM-PISEW program. They also look more active to seek the information about the program. Not like in other villages that only expect on the formal meetings conducted in the village office, this community also active to seek the information from discussion in informal meeting such as “pengajian”; 2) their communication behaviour; this community is well known have higher social participation and also have highly interconnected through interpersonal networks than other communities in other villages. As can be seen, not like other communities that stop to participate after the project finish, this community is still active to participate eventhough the financial support from the government stop. Further, the willingness of the rich to lend their money to the poor when the program implementation proves that this community has stronger family relationship than other communities. Thus, they are more solid than other communities when implement the program.

Further, from the explanation above, I can argue that the structure of the communication channels used by the government in the Mekar Sari Raya village has influenced communication more effective. The availability of the downward communication, upward communication, and especially the horizontal communication make the community easier to get the information vertically and horizontally. Moreover, the use of the appropriate channels such as interpersonal channel instead of mass media and the homogeneity also trigger the communication become more effective in this village. Next, the program will be easier to be implemented. The easier the program to be implemented, the more the advantages got by the community. Therefore, the Mekar Sari Raya village becomes more successful than other villages in implementing the PNPM-PISEW program.

In addition, I argue that the successful of the diffusion of the PNPM-PISEW process has been marked by the increasing of the community self-independence. In my opinion, this success is determined much by the willingness of the community to participate, the use of appropriate

channels in communication. Moreover, this successful is also supported by their homogeneity in religion, tribe and status.

6.2. Recommendation

Since the Mekar Sari Raya village succeeds in implementing the PNPM-PISEW program, this village can be taken as a lesson learned for other villages. Looking back at the successful of the Mekar Sari Raya in the diffusion of innovation of the PNPM-PISEW, besides the community itself, I see that the village head also plays an important role in the successful of diffusion of innovation of the PNPM-PISEW. Therefore, I would propose some recommendations for other vilage heads in other villages, thus they can make the PNPM-PISEW program or other community based programs more successful to be implemented in their village;

1. The village heads should be active attend meeting held by the government at the higher level, thus they can know about the program clearly. Moreover, they can get the information about the program as much as possible to be delivered to his community.
2. Due to the low level of education and the high number illiterate people in villages, it might be more effective for the village heads to use the personal communication instead of paper or internet to communicating the program to their community.
3. The village should be able to encourage all organisations in their village to include the program in their agenda meeting. If the community in one village has the same religious, it might be better to conduct the informal discussion after the religious meeting. However if their believes are different, it might be better for the village head to conduct the informal meeting outdoor in a relax sphere once in a week.

Finally this research has limitations. As mentioned before in chapter three, interviews were conducted through celular phone. Sometimes the interviews were disturbed by a bad signal. Because of that interview continue through the short message service (sms) and it causes the intentions of the interviewer cannot be achieved. Therefore I suggest the researcher to do interview by face to face, so the intentions of the interviewer are clear for the interviewee. Moreover, I also recommend that for more comparative, research has to be done in other villages as well. Thus, the differences among villages in the process of the diffusion of innovation of the PNPM-PISSEW can be more clear. Further, the factors influence the diffusion of the innovation of the PNPM-PISEW more successful in the Mekar Sari Raya village can be identified clearly.

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Appendix

Appendix 1.

Box. 1	
The difference between qualitative and quantitative research	
Qualitative Research : Subjective Holistic Phenomenological Anti positivist Descriptive Naturalistic Inductive	Quantitative Research : Objective Reductionist Scientific Positivist Experimental Contrived Deductive

Appendix 2.

List of Question for interviewee

A. Questions for local residents

About structure of communication channels:

1. Can you tell me how the PNPM PISEW was introduced in Mekar Sari Raya village?
2. Did you ever know about PNPM PISEW before it was introduced?
3. To whom did you ask something that unclear to you regarding to the implementation of the PNPM-PISEW program?
4. What is the community responsibility in this program?

About Effective communication:

5. Did the person who introduce the PNPM-PISEW make you sure that this program is easy to do?
6. Did the village head ask the community about the kind of infrastructure that want to be built by using the funding?
7. Is the PNPM-PISEW program is easy to be implemented?
8. Beside the direct explanation by the village head, did the community seek the information through internet, other medias or through your friend actively?

About consequences:

9. What are the changes that community feel after the PNPM-PISEW implementation?
10. Are the results of the PNPM-PISEW program in accordance with the community wishes?
11. Do the PNPM-PISEW give the negative impact or the disadvantages for some people?

About the successful factors:

12. What are the privileges of the Mekar Sari Raya village compared to other villages in the PNPM-PISEW implementation?

About KPP:

13. What is the tasks of the KPP team?
14. Who did choose the KPP team?
15. Does the KPP team face any difficulty in maintaining and collecting the dues from the community?

B. Questions for Authority

- For Simalungun Authority (A1);

About structure of communication channels:

1. How is the process of the implementation of the PNPM-PISEW?

About Effective Communication:

2. How did the local government inform about the PNPM-PISEW to the community of Mekar Sari Raya village?
3. What is the difference in the way of communicating the PNPM-PISEW program in Mekar Sari Raya village compare to other villages?
4. What is the factor that makes the information about the PNPM-PISEW program is easy to be understood by the community?
5. Do the community ask about the PNPM-PISEW actively?

About consequences:

6. What is the significant change that occur in the village after they received funding from the PNPM-PISEW program?
7. What is the significant change that occur in the community after they received funding from the PNPM-PISEW program?

About successful factors

8. What is the factor that makes the community in the Mekar Sari Raya village is more successful than other communities in other villages?

- For Village Authority (A2)

About Structure of Communication Channels

9. Where did you find the information about the PNPM-PISEW for the first time?
10. Did you know about the PNPM PISEW before it was introduced in this village?
11. What is the role of the village government in this PNPM-PISEW program?
12. To whom do the community usually ask about something that unclear for them?

About Effective Communication:

13. How did the village government inform the PNPM-PISEW program to the village community?
14. Did all the community attend the PNPM-PISEW meetings?
15. Did you think that the PNPM-PISEW is easy to be implemented?
16. Is the discussion about the PNPM-PISEW only done in the village meeting?

About Consequences:

17. What is the significant change that occur in the village after they received funding from the PNPM-PISEW program?
18. What is the significant change that occur in the community after they received funding from the PNPM-PISEW program?
19. Is there any unanticipate or undesirable consequence caused by the PNPM-PISEW program?

About successful factors

20. What is the factor that makes the community in the Mekar Sari Raya village is more successful than other communities in other villages?
21. How is the level of the community participation in this village compared to other villages?

Apendix 3.

Interview Scripts

Interview with A1, April 21, 2014

About the structure of communication channels

1. How is the process of the implementation of this PNPM?
At the first time, TPKD with the related ministries and Bappenas discussed about national poverty reduction program. Then, the PNPM Mandiri was formed as a main of poverty reduction program with its branch like

PISEW, P2KP, PAMSIMAS and etc. PNPM PISEW handles development of infrastructure, social and economic of region that focus on reducing disparities between rural area. In that discussion they chose 9 provinces and 32 regencies include Simalungun district with 20 sub districts. After that, Central government invited the regent and legislator to sign the MoU of the readiness of the local government to support financial for operational and sharing activity of the PNPM-PISEW program. After that the local government proposed the names of core unit officials (*pejabat inti satker*) to central government through Public Works Ministry. After the certificate of the core unit officials was issued by the minister, then the central government invite them for socialization and workshop. After that socializations also were held in provinces and regencies. Then, KDS was formed in villages in order to get inspirations from community regarding to the kind of infrastructure that want to build. The next step is to make detail engineering design (DED) and budget plan (For detail information, see “*pedoman teknis PNPM-PISEW*”).

About Effective Communication:

2. How was local government inform the PNPM-PISEW program to the community in Mekar Sari Raya village?
To communicate the PNPM-PISEW program to this community is the same with other communities in other villages. We informed the community through the village government/ the village head. Besides that the government also gave posters to the village head. Those posters must be attached in public places, thus the community understand about the PNPM-PISEW program and its usefulness. Further, with sub-district government and consultant, the Simalungun government also conduct a socialization.
3. What is the difference in the way of communicating the PNPM-PISEW program in Mekar Sari Raya village compare to other villages?
*We suggested the village head to be actively to encourage the community to participate in this program. They can use the communication methodology that they think more effective for them. Coincidentally, the community of Mekar Sari Raya village have been used to talk about everything about the village not only in village meetings but also through informal discussion after “*pengajian*” every week. I see that this way is very helpfull for community to understand the PNPM-PISEW clearly. Besides that this community trust and respect their village head and community leaders much. Thus, I think that is also help to make sure the communitiy that this program is easy tobe implemented.*
4. What is the factor that makes the information about the PNPM-PISEW program is easy to be understood by the community?
*As I mentioned before that the village head and community leader have helped to inform the PNPM-PISEW to the community since the community trust those persons. Besides that the government have tried to inform the community orally and through mass media. Coincidentally, 100 percent of the community in Mekar Sari Raya village have the same religious namely Moslem, thus after religious meeting namely “*pengajian*” can be a place for the community to get more information about the PNPM-PISEW program. I think that is one of the privileges of this community compared to other communities.*
5. Do the community ask about the PNPM-PISEW actively
*In my opinion, this community was very enthusiastic about the PNPM. This community often asked the village head and the consultant not only in village meetings but also after “*pengajian*”.*

About consequences:

6. What is the significant change that occurred in the Mekar Sari Raya village after they received funding from the PNPM-PISEW program?
At the first time I came to this village I see that this village was quite barren. It might be because of the lack of water. In that time was a dry season. Flowers were rarely to be found in the yard. Now, I see that yards are full of flowers. Moreover this village become neater. From the dues of water usage, now the community can build kindergarden and other infrastructures. Moreover the money from the dues can be lent by the community that need cost for medical service. Besides that I see that now the community can get additional income by establishing new business such as catfish and motorcycle wash businesses.
7. What is the significant change that occurred in the community after they received funding from the PNPM-PISEW program?
In my opinion, the PNPM-PISEW program have inspired the community to be more creative. The community finally realize that they can buid something for them even though the financial support from the government have stopped.

About successful factors

8. What is the factor that makes the community in the Mekar Sari Raya village is more successful than other communities in other villages?
The difference between the Mekar Sari Raya community with other communities is the members of this community have the same interest, that is to get the clean water infrastructure. Since the village was establised there is not any development of water provision infrastructure even though they have proposed it in MUSRENBANG for many times. Because they have waited for this infrastructure almost 30 years, when they got funding from the PNPM-PISEW it made them can work gather together. All the community

participate by giving their money and also their energy. They are willing to work even though they do not be paid. All the wages that must be received by the community were donated to the project. Therefore, the points that I can see from that community are: 1) They have a willingness to improve their quality of life, 2) They have strong character of “gotong royong”, 3) There is a strong relationship. They remember to a proverb that say that they will be stronger and can do anything if they gather together. Thus it makes them can gather together without deterring social status of one person.

Interview with A2, April 22, 2014

About Structure of Communication Channels

1. Where did you find the information about the PNPM-PISEW for the first time?
I know the PNPM-PISEW firstly from the head of sub-district Panei. It is around 2009, we invited by him for meeting in the sub-district office.
2. Did you know about the PNPM PISEW before it was introduced in this village?
No. I did not know about the PNPM PISEW before. However, after the meeting in Sub-District I also find the information in television and newspapers.
3. What is the role of village authority in this PNPM-PISEW program?
The roles of the village authority are to inform the PNPM-PISEW to the community and to facilitate the activities of KDS (Sector Discussion Group) at the planning stage, and then to coordinate LKD (Village community institution) at the implementation stage. After that, I also facilitate the establishing of the KPP (User and caretaker group). We get technical assistance through consultant called FD (village facilitator).
4. To whom do the community usually ask about something that unclear for them?
Sometimes they can ask me. However, for further information we can ask the consultant that accompany us to implement the program.

About Effective Communication

5. How did you inform the PNPM-PISEW program to the village community?
Firstly I invite the community to a meeting and at the time I convey the information about the PNPM-PISEW that I got from the meeting at sub-district. I informed them that the Mekar Sari Raya village got funding from the PNPM-PISEW program. At the meeting i informed the community that the PNPM-PISEW is development program in which the community do the development by themselves. Government give the funding anda also technical assistance through consultant.
6. Did all the community attend the PNPM-PISEW meetings?
Yes, all the community of Mekar Sari Raya village always attend the PNPM-PISEW meetings. At least one person per household attended the meetings.
7. Did you think that the PNPM-PISEW is easy to be implemented?
Yes, at the first time I knew the PNPM-PISEW I was sure that the community of Mekar Sari Raya will be able to implement it because the methodology to implement the PNPM-PISEW is simple. Eventhough it will be done by the community itself, I am sure that the community can do it since the methodology is simple. It does not need sophisticated tools. Moreover this community have been used to work together. Thus, it can be easier.
8. Is the discussion about the PNPM-PISEW only done in the village meeting?
No. Besides in the village meetings, the community usually talk about the PNPM-PISEW after “pengajian” that is held every week. We usually talk about the village and the community needs while eating and drinking after “pengajian”. However, we do not only discuss about PNPM-PISEW but also other matters regarding to the village. In that place, the community can propose their opinionfreely.

About Consequences:

9. What is the significant change that occur in the village after they received funding from the PNPM-PISEW program?
Firstly, the difference is the adult man and the teenager do not need to carry water from the spring at the hill as far as 1.5 km. Besides that, in my opinion this village have been more tidy and beautiful. The community have started to plant flower and grass in the house yard without worrying about watering the plant. Besides that some households made fish ponds in their yard such as catfish and tilapia ponds. And the others build motorcycle wash business.
10. What is the significant change that occur in the community after they received funding from the PNPM-PISEW program?
Indeed there are any differences. The adult man now have much time in their fields. The teenager have much time for playing and studying. Moreover, the community become more independent and more creative to propose their ideas.
11. Is there any unanticipate or undesirable consequence caused by the PNPM-PISEW program?

I think there is not any unanticipated or undesirable difference. There is a household that has borehole water. In the past, we used to buy water from that household. However, I think it is not so significant since it is not his main livelihood.

About successful factors

12. What is the factor that makes the community in the Mekar Sari Raya village is more successful than other communities in other villages?

By chance, the most of the members of the community have family relationship. This village also more peaceful than other villages since almost there is not any quarrel occur in this village. Moreover the people in this village are very obedient and like to work together by "gotong royong". Besides that, the people in this village feel ashamed if they do not participate in the village projects. Moreover, They trust each other and receive new ideas for the village improvement.

13. How is the level of the participation of this community compared to other villages?

Compare to other villages, I know that the people in this village are more active than the people in other villages in the village projects. Not only in the PNPM-PISEW program, but for all projects or programs. As I mentioned before, they are always willing to participate.

Interview with L1, April 22, 2014

About structure of communication channels:

1. Can you tell me how the PNPM PISEW was introduced in Mekar Sari Raya village?

The PNPM-PISEW, first was introduced by the village head. The village head said that our village got the funding 50 millions rupiahs to build public facilities in the village. It can be a road, water facilities and others.

2. Did you ever know about PNPM PISEW before it was introduced?

I did not know about the PNPM until the village head told us about that program. I knew the program after it was introduced by the village head.

3. To whom did you ask something that unclear to you regarding to the implementation of the PNPM-PISEW program?

We usually asked the unclear information regarding to the PNPM to village head or consultant.

4. What is the community responsibility in this program?

We have to build the infrastructure well. We also have to make financial report.

About Effective communication:

5. Did the person who introduce the PNPM-PISEW make you sure that this program is easy to do?

Yes, the village head said that the PNPM-PISEW program is easy to be implemented. Since this program must be done by the community directly, thus the easiest way is if we can commit to do the program together and to unite, like our custom here "gotong royong".

6. Did the village head ask the community about the kind of infrastructure that want to be built by using the funding?

Yes, it did. The village head asked us about the kind of infrastructure that we want to build. And finally we agreed to build the clean water provision infrastructure since we need it so much.

7. Is the PNPM-PISEW program is easy to be implemented?

Actually, at the first time the PNPM was introduced, some of us were still confuse. However, after the further explanation through discussion with the village head, everything were easier to understand. The head of village explained the all of the stages, from plan until the implementation. We also had a consultant to accompany and to give us technical assistance to do the program.

8. Beside the direct explanation by the village head, did the community seek the information through internet, other medias or through your friend actively?

I cannot use internet and I also rarely read the newspaper. I would ask everything about the PNPM-PISEW in village meeting or in a meeting after "pengajian" every week.

About consequences:

9. What are the changes that community feel after the PNPM-PISEW implementation?

Now, we can get the clean water easily. The clean water was in our house. In the past we had to walk up to get the clean water. We also can build Kindergarden, to renovate the Mosque, road and etc from the dues that we have collect. We also built a fountain in the middle of our village. Moreover, some of the member of the community have built fish pond in order to increase their income.

10. Are the results of the PNPM-PISEW program in accordance with the community wishes?

Yes, since we get the financial support from the PNPM, now we can enjoy the clean water that we have waited for a long time. The PNPM-PISEW have helped us to make our dream come true.

11. Do the PNPM-PISEW give the negative impact or the disadvantages for some people?

It seems that there is not any disadvantages caused by the PNPM. All of us feel lucky and satisfy. Our village is getting more tidy and beautiful since we had clean water provision infrastructure from the PNPM. Now,

the people that were used to take the clean water from the weelspring in the past, do not need go the wellspring anymore. The adult have more time in the field and the teenager have more time for playing and studying.

About the successful factors:

12. What are the privileges of the Mekar Sari Raya village compared to other villages in the PNPM-PISEW implementation?

We are more successful compare to other villages because we have the high spirit to get the clean water provision infrastructure. We also like to do something by "gotong royong". Besides that, the community in this village love peace. There is not any confrontation among people in this village. We have strong family relationship.

Interview with L2, April 24, 2014

About structure of communication channels:

1. Can you tell me how the PNPM PISEW was introduced in Mekar Sari Raya village?

I knew the PNPM PISEW program in 2009 from the village head in a village meeting. He said that our village got funding 50 million rupiahs from government. We were free to decide what we will develop regarding to our needs.

2. Did you ever know about PNPM PISEW before it was introduced?

I did not know about the PNPM-PISEW yet until the village head told us about it in a village meeting. However, after the explanation by the village head, I saw the news about it from television and newspaper. That is why we were getting more enthusiastic to do the program.

3. To whom did you ask something that unclear to you regarding to the implementation of the PNPM-PISEW program?

We asked something that unclear for us to the village head and to the consultant that always accompanied us.

4. What is the community responsibility in this program?

We had to make a financial statement regarding to to account for the money that we have received from the government. For it, we chose one person that have ability regarding to make that financial statement through the village meeting.

About Effective communication:

5. Did the person who introduce the PNPM-PISEW make you sure that this program is easy to do?

When the PNPM-PISEW was introduced, we knew that it will be easy to be implemented. We have measured the distance from wellspring to the village before. The village head said that the PNPM-PISEW program is easy to implement if the community promise to unite and do the program together by "gotong royong".

6. Did the village head ask the community about the kind of infrastructure that want to be built by using the funding?

When the PNPM-PISEW was introduced, the head man asked us about our willingness to participate in the PNPM-PISEW program. We agreed to participate and to use the money from the government to build the water provision infrastructure since it was difficult to get clean water at that time. We had to walk up to the wellspring to get the water.

7. Is the PNPM-PISEW program is easy to be implemented?

In my opinion, the PNPM-PISEW is easy to be implemented because we do not need to use the sophisticated tools. Moreover, the village head said that it will be easy because we only need the spirit to work together to succeed the PNPM-PISEW program. We have been accustomed to work together(gotong royong) to do something for common interest).

8. Beside the direct explanation by the village head, did the community seek the information through internet, other medias or through your friend actively?

Yes, we usually discuss about the village needs include the PNPM-PISEW program after "pengajian" that is always held every week in a house or in a Mosque.

About consequences:

9. What are the changes that community feel after the PNPM-PISEW implementation?

Indeed, we get the clean water easily. We do not have to collect the rainwater and walk up to get the clean water. In the past, the teenager and the adult man had to get the clean water for their family eventhough we have tired working in the field and studying at school. Sometime we had to buy the clean water from village neighbour. We had to pay 1000 rupiahs for 20 litres water. But we cannot always buy the water, especially if the dry season comes. So, if the dry season come, we did not have any choice beside walk up to the wellspring and get the clean water.

10. Are the results of the PNPM-PISEW program in accordance with the community wishes?

Yes, the PNPM-PISEW program have gave us the chance to enjoy the clean water easily. Even now, we can build Kindergarden, to renovate the Mosque and etc. by using the money from the dues that was collected every month. Now, we also have a source for borrowing the money if we need to go to the hospital.

11. Do the PNPM-PISEW give the negative impact or the disadvantages for some people?

In my opinion, there is not any disadvantage that is caused by this program. All the community are satisfy because we have got our wish, that is clean water. We can take a bath at least twice in a day. Moreover, there is a member of community that built a motorcycle wash business. For me, since the clean water is available, I tried made a fish pond besides my house. Since the result is good, now I add two more fish ponds.

About the successful factors:

12. What are the privileges of the Mekar Sari Raya village compared to other villages in the PNPM-PISEW implementation?

In my opinion, we have high spirit of "gotong royong". we have waited the clean water for a long time. That is why, we can gather together and hand in hand to build the water provision infrastructure and develop other infrastructures.

Interview with L3, April 25, 2014

About structure of communication channels:

1. Can you tell me how the PNPM PISEW was introduced in Mekar Sari Raya village?

I knew about the PNPM-PISEW from the village head. At that time, he said that our village got funding from government to build infrastructure that we need. Building the infrastructure was done by the community.

2. Did you ever know about PNPM PISEW before it was introduced?

No, I did not know about the PNPM before the village head told us about that program. I rarely read newspaper and watched television.

3. To whom did you ask something that unclear to you regarding to the implementation of the PNPM-PISEW program?

If we want to ask something regarding to the PNPM-PISEW, we can ask to the village head and to the consultant. We can ask some questions in the village office or in the village head's house or in "pengajian".)

4. What is the community responsibility in this program?

We had to build the infrastructure and make the financial report

About Effective communication:

5. Did the person who introduce the PNPM-PISEW make you sure that this program is easy to do?

Yes, the village head said that the PNPM was easy to be implemented. The most important thing is the community agreed to do it together. Moreover it would be easy since we would be guided by the consultant.

6. Did the village head ask the community about the kind of infrastructure that want to be built by using the funding?

Yes, after the explanation by the village head, we were asked about what kind of infrastructure that we wanted to build. At that time, we agreed to build the clean water provision infrastructure.

7. Is the PNPM-PISEW program is easy to be implemented?

Yes, this program is easy to be implemented because it does not need sophisticated tools. This program is also easy since it was done together with the spirit of "gotong royong".

8. Beside the direct explanation by the village head, did the community seek the information through internet, other medias or through your friend actively?

I do not know about internet. However, the always seek information through discussion after "pengajian".

About consequences:

9. What are the changes that community feel after the PNPM-PISEW implementation?

Now, the clean water can be enjoyed from our home. In the past we had to use rainwater or walk up far away in order to get the clean water. After the clean water provision project finished, now we can build a kindergarden, a fountain and donate some money for renovating the Mosque. The cost is from the dues collected by the KPP.

10. Are the results of the PNPM-PISEW program in accordance with the community wishes?

Yes. The results of the PNPM program are in accordance with our wish to have the clean water provision infrastructure. Now, we can build by ourselves other infrastructures such as a kindergarden and a fountain and also renovation of the mosque without money from the government.

11. Do the PNPM-PISEW give the negative impact or the disadvantages for some people?

There is not anybody harmed because of this program. In my opinion, this program is profitable for everyone. Besides getting the clean water easily, now there are many people made the fish ponds surround their houses and also the motorcycle wash.

About the successful factors:

12. What are the privileges of the Mekar Sari Raya village compared to other villages in the PNPM-PISEW implementation?

We all have the same spirit to get the clean water provision infrastructure. We all need the clean water, thus we can do it together.

About KPP:

13. What is the role of the KPP?

The roles of the KPP Team are to utilize and to maintain the result of the infrastructure of the PNPM-PISEW program. In this case is to utilize and to maintain the clean water infrastructure. Since we need money for maintaining the infrastructure, based on mutual agreement we agreed to collect money every month as dues of water usage. Once in six months we have to make the financial report. We usually present that report in the village meetings. We also attach the report on the wall of public place such as "warung".

14. Who did choose the KPP team?

The community chose the KPP team.

15. Does the KPP team face any difficulties in maintaining and collecting the dues from the community?

So far we do not face any difficulty. We collect the dues every month without any constraints. Sometimes there is one household cannot pay the dues on time. They can pay the dues next months whenever they can. However, it rarely occurs. The dues is cheap since it is only around 7.000,- rupiahs until 15.000,- rupiahs per household per month. Since the infrastructure is the public facilities, we cannot force them to pay. We know that every household will pay the dues if they have money. Further, in terms of maintenance, we have high credibility technicians that can work anytime. Also the whole of the member of the KPP team work with the high credibility.

Interview with L4, April 27, 2014

About structure of communication channels:

1. Can you tell me how the PNPM PISEW was introduced in Mekar Sari Raya village?

I knew the PNPM-PISEW from the village head in a village meeting in 2009. In that meeting the village head said that government give us funding 50 million rupiahs to built infrastructure that we need.

2. Did you ever know about PNPM PISEW before it was introduced?

I do not know about the PNPM-PISEW until the village head told us about that program. However, after the explanation by the village head, I often see the news about the PNPM in local newspaper.

3. To whom did you ask something that unclear to you regarding to the implementation of the PNPM-PISEW program?

We would ask something that unclear for us to the village head and to consultant.

4. What is the community responsibility in this program?

Besides to implement the program, we also have to give the report about the cash flow, out and in to the government.

About Effective communication:

5. Did the person who introduce the PNPM-PISEW make you sure that this program is easy to do?

Yes, the village head assured us that this program was easy to be implemented if we promise to do it together by "gotong royong".

6. Did the village head ask the community about the kind of infrastructure that want to be built by using the funding?

Yes, firstly the village head asked us whether we agree or not to participate in the PNPM-PISEW program. After we agreed, he asked us about the kind of infrastructure that we wanted to build. Since it was difficult to get the clean water, thus we agreed to build water provision infrastructure.

7. Is the PNPM-PISEW program is easy to be implemented?

Yes, this PNPM program is easy to be implemented. Besides it only needs simple tools, this program is also easier to do together by the village community.

8. Beside the direct explanation by the village head, did the community seek the information through internet, other medias or through your friend actively?

Yes, I used to seek the news about the PNPM from the newspaper and through discussion after "pengajian" every Thursday night.

About consequences:

9. What are the changes that community feel after the PNPM-PISEW implementation?

Now, we do not need to collect the rainwater anymore and the teenager and the adult man do not need to walk up to get the clean water for their family. The teenager have much time for studying and playing. Meanwhile the adult man have more time for relax after working in the field. Besides that, now our village looks more tidy and beautiful since many households plant the flower in their yard. The fountain in the middle of the village also make the village more beautiful.

10. Are the results of the PNPM-PISEW program in accordance with the community wishes?

Yes, the PNPM-PISEW has gave us the water provision infrastructure that we have waited for a long time. Besides that, now without financial support from the governmen we are able to build a kindergarden,

renovate a mosque and for other needs. The money to build those infrastructures was from the water usage dues. The money collected from the dues also can be borrowed by the community without interest, especially for medication.

11. Do the PNPM-PISEW give the negative impact or the disadvantages for some people?

No, so far I do not see the disadvantages of this program for anyone. All the community feel satisfy because we have got the clean water in our house. Besides that, now some households made fish ponds and a motorcycle wash in order to get extra incomes for their family needs.

About the successful factors:

12. What are the privileges of the Mekar Sari Raya village compared to other villages in the PNPM-PISEW implementation?

We have the same desire for the clean water. Besides that we have a strong family relationship that makes us can work together to make our dream come true.

Interview with L5, April 27, 2014

About structure of communication channels:

1. Can you tell me how the PNPM PISEW was introduced in Mekar Sari Raya village?

I knew the PNPM-PISEW first from the village head in 2009. At that time, the village head said that our village got funding from government to build something that we need. The implementation of the program is by the community itself.

2. Did you ever know about PNPM PISEW before it was introduced?

I have never known about the PNPM until the village head tell us about that program.

3. To whom did you ask something that unclear to you regarding to the implementation of the PNPM-PISEW program?

If the explanation about the PNPM is unclear for us, we can ask it to the village head and to consultant. They are always ready to give us the explanation if we need it.

4. What is the community responsibility in this program?

Indeed, we have a responsibility to do the program and to make the financial report for the government.

About Effective communication:

5. Did the person who introduce the PNPM-PISEW make you sure that this program is easy to do?

Yes, the village head assured us that the PNP-PISEW is easy to be implemented. The most important thing we have to commit to do it together. Moreover we will be always guided by a consultant.

6. Did the village head ask the community about the kind of infrastructure that want to be built by using the funding?

Yes, after the explanation by the village head, he asked us about the infrastructure that we want to build. Since we really need the clean water, we proposed for building the water provision infrastructure, and all we agreed it.

7. Is the PNPM-PISEW program is easy to be implemented?

Yes, in my opinion this program is easy to be implemented. After the explanation by the village head, we understood that this program can be done together by "gotong royong". Moreover, we are used to do everything regarding to the village needs together.

8. Beside the direct explanation by the village head, did the community seek the information through internet, other medias or through your friend actively?

I cannot use internet, so I have never tried to find the information about the PNPM-PISEW through internet. However, sometimes I try to find the information from a newspaper. The most frequent, I got the information from a discussion after "pengajian" since everybody will share the information in that place.

About consequences:

9. What are the changes that community feel after the PNPM-PISEW implementation?

Firstly, now we have the water provision infrastructure that directly is connected to our houses. We can get the clean water easily. In the past we had to use rainwater or walk up as long as 1.5 km to get the clean water. After we built the water provision infrastructure, now we can build Kindergarden, contribute in renovation of the mosqu. The money is from the dues that is collected by the KPP team. We also can borrow the money for the urgent needs.)

10. Are the results of the PNPM-PISEW program in accordance with the community wishes?

Yes, the PNPM-PISEW has helped us to make our dream come true, that is to have the clean water provision infrastructure. Now, we can build other facilities, such as Kindergarden, road and etc.

11. Do the PNPM-PISEW give the negative impact or the disadvantages for some people?

In my opinion, there is not anynegative impact to everybody caused by this program. All the members of the community had got their dream. Now, some people can made fish ponds around their houses since the clean water is available in their house.

About the successful factors:

12. What are the privileges of the Mekar Sari Raya village compared to other villages in the PNPM-PISEW implementation?

We have the same spirit in order to get the clean water. All need the clean water, therefore we can do it together.

Interview with L6, April 27, 2014

About structure of communication channels:

1. Can you tell me how the PNPM PISEW was introduced in Mekar Sari Raya village?

The PNPM-PISEW firstly was introduced by the village head in a village meeting. The village head said that our village got funding from government to build infrastructure that we need. However, we have to build it by ourselves.

2. Did you ever know about PNPM PISEW before it was introduced?

No, I knew the PNPM after the village head told us about that program.

3. To whom did you ask something that unclear to you regarding to the implementation of the PNPM-PISEW program?

We used to ask something regarding to the PNPM to the village head and to the consultant.

4. What is the community responsibility in this program?

Our responsibility is to build the infrastructure and make the financial report.

About Effective communication:

5. Did the person who introduce the PNPM-PISEW make you sure that this program is easy to do?

Yes, the village head said that the PNPM was easy to be implemented by "gotong royong". In term of the implementation, we will be guided by the consultant.

6. Did the village head ask the community about the kind of infrastructure that want to be built by using the funding?

Yes, the village head asked us about the kind of infrastructure that we want to build. Since we really need the clean water infrastructure, all we agreed to build such infrastructure.

7. Is the PNPM-PISEW program is easy to be implemented?

Yes, the PNPM program is easy to be implemented together. Moreover we used to do the work together by "gotong royong".

8. Beside the direct explanation by the village head, did the community seek the information through internet, other medias or through your friend actively?

Yes, I used to seek the information about the PNPM-PISEW from other people in a discussion after "pengajian".

About consequences:

9. What are the changes that community feel after the PNPM-PISEW implementation?

Now, we do not need to collect the rainwater or walk up far away to get the clean water. Besides that we also can build a kindergarden, a fountain and help to renovate a mosque from the water usage dues.

10. Are the results of the PNPM-PISEW program in accordance with the community wishes?

Yes. The results of this PNPM program have been in accordance with the community wish. Now, we have the clean water provision infrastructure. Besides that, now we can build other facilities such as a kindergarden, a fountain and also renovate the mosque without money from the government.

11. Do the PNPM-PISEW give the negative impact or the disadvantages for some people?

In my opinion, there is not any disadvantage caused by the PNPM-PISEW program to the community. All the people feel lucky. Besides got the clean water, now we are able to build other facilities for our village without the money from the government.

About the successful factors:

12. What are the privileges of the Mekar Sari Raya village compared to other villages in the PNPM-PISEW implementation?

We have the strong family relationship thus we can work together. Moreover, we like to work together by "gotong royong"