



IMBALANCED ECONOMIC POWERS IN A DEGRADING ENVIRONMENT

**A STUDY INTO THE POWER POSITION OF CITIZENS AND PALM OIL COMPANIES
AND THE INFLUENCES OF THEIR ACTIVITIES ON THE ENVIRONMENT IN THE SUB-
DISTRICT OF JEMPANG, EAST KALIMANTAN, INDONESIA**

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MASTER THESIS SOCIAL AND POLITICAL SCIENCES OF THE ENVIRONMENT

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SUMMARY

In the last decennia, the policy of the Indonesian government has created an economy that is based on the export and exploitation of the natural resources. Most of these actors are focused on short term benefits and do not take any account of the consequences for the environment and human population. Since the arrival of palm oil companies in the sub-district of Jempang, East Kalimantan, during the mid-nineties, the power positions of actors has changed significantly, just as the state of the environment did. Gradually, the Indonesian government has realised that the political decentralisation has a large negative influence on the environment. Therefore there is a rising demand for more research and possible policy and legislative recommendations to reduce the ecological and social problems in the middle Mahakam lake area; the wetland area where the research location is situated. This area is of prime ecological value due to its unique features, such as shallow lakes, freshwater swamps and mangrove forests, and the existence of rare and endangered species. Its ecosystems are threatened, mainly due to economic activities such as logging, mining and the establishment of oil palm plantations. The context of the research location is a typical example where economic, political, socio-cultural and environmental factors become interwoven and can be considered extremely complex and problematic at the same time.

The central question of this research is formulated as follows: *To what extent do citizens, palm oil companies and governmental bodies influence the environment in the sub-district of Jempang, how is this related to their power position and what are the possibilities for a more sustainable future?* The research objective of this study is threefold. Firstly, it involves the gathering of information on perceptions of environmental changes in the sub-district of Jempang. Secondly, the power position of citizens, palm oil companies, and governmental bodies, which are influencing the environment to a certain extent, will be described and analysed. Thirdly, the outline of the environmental changes from a social, economic, and political view will create possibilities in order to contribute to the discussion about sustainable development on a local level. The role and relationships between state, market and civil society on a higher level, will be taken into account to come up with recommendations for local actors and policy makers based on practice and theory.

A four month fieldwork period (April – July 2010) in East Kalimantan obtained data for this thesis. Two villages in the sub-district of Jempang, Tanjung Isuy and Muara Ohong, were subject to this study. In this research I have used a mix of research methods like the questionnaire with categorical questions and open-ended questions (on a household level), semi-structured and expert interviews, and a literature study to deliver proper and holistic scientific results.

In this study, a socio-economic and political empirical analysis by means of the concepts of the logic fields (Bourdieu) has revealed the considerable environmental impact of palm oil companies and to a lesser extent the activities of citizens. Citizens in the sub-district of Jempang noticed considerable environmental degradation in the last 20 years. The main environmental issues can be reduced to land and water related changes. Concerning the changes on the land, the high extent of deforestation in the area seems to cause extreme fluctuations in water level and high sedimentation rates, which disturbs the water regulation

system in the sub-district of Jempang. Moreover, households saw their land and forest gardens being converted, and provisioning services – fruits, vegetables, and wood - disappeared. The biggest change related to water is the decreasing water quality; caused by a non-existence waste management in the villages and the chemical fertilizers and pesticides of oil palm plantations. The water system is weighed down by the eutrophication process and changes the lakes into swampy conditions. The combination of the pollution and eutrophication process is causing the reduction of fish resources. The decreasing fish population is also a result of the increasing number of fishermen and the use of unsustainable fishing techniques.

The power position of citizens can be considered weak; mainly the state of their economic capital determines and limits the possible strategies to yield power, but it is also strongly related to their social and cultural capital as well. Their weak power position limits the possible strategies for citizens to react on and adapt to the changes concerning the power structures and environment. The relatively strong social and cultural capital of palm oil companies gives them considerably more power. However, this power is almost always grounded in economic capital. In other words, palm oil companies created a power shift and weaken the citizens' power position. The influence of local government on this development is significant; it does not react to environmental and social problems and the support and provision of facilities towards citizens is poor, which hampers the empowerment of citizens. On the other hand, the local government supports palm oil companies and even creates possibilities for palm oil companies to cross legal boundaries. The local government and palm oil companies appear to occupy the most powerful position concerning the access and the use of land. The apparent cooperation between these actors makes their position even more stable and dominant. It is obvious that all layers of the Indonesian government are struggling to get used to the new democratic and decentralised system that was implemented after the New Order. As a consequence, local governmental bodies are characterised by a poor monitoring capacity, the lack of controlling the legality of activities, the lack of transparency during decision-making processes, and the inability to implement and maintain governmental policy. In the current situation, the necessary countervailing power of citizens was taken out of the whole decision making and policy process. With no countervailing power and with the strong support of the government and local authorities, palm oil companies occupy an extremely dominant position in the area. In combination with corruption, decision making processes and policy outcomes become irrational and non-balanced. Without any changes in the state, market or civil society the future of the sub-district of Jempang will become socially and environmentally degrading and unpredictable.

GLOSSARY, ABBREVIATIONS AND ACRONYMS

Adat	Unwritten traditionally law system with informal and dynamic rules
AMDAL	Environmental impact assessment (Analisis Mengenai Dampak Lingkungan)
BFL	Basic Forestry Law
BPD	Village representative board/ Village council
Bupati	Head of the district
Camat	Head of the sub-district
Desa	Village
Eutrophication	Process by which a body of water acquires a high concentration of nutrients; resulting in wide swings in dissolved oxygen concentrations and frequent algal blooms
GAPKI	Indonesian Palm Oil Association (Gabungan Pengusaha Kelapa Sawit Indonesia)
Gotong-royong	Collective cleaning activity
GRDP	Gross regional domestic product
Gubernur	Head of the province
HGU	The right of cultivation (Hak Guna Usaha)
Hydroponics	Cultivation of plants using mineral nutrient solutions in water without soil
IMF	International Monetary Fund
<i>Kabupaten</i>	District
Kampung	Quarter
<i>Kecamatan</i>	Sub-district
Keramba	A big wooden fish cage
Kepala desa	Village head
MMA	Middle Mahakam area
New Order	Term is referring to the Suharto period (1967-1998) in Indonesia
NGO	Non-governmental organisation
PDAM	Public water utility (Perusahaan Daerah Air Minum)
PDIP	Indonesian Democratic Party of Struggle (Partai Demokrasi Indonesia Perjuangan)
Pemerintah pusat	Central government
PLN	Public electricity utility (Perusahaan Listrik Negara)
Propinsi	Province
RAL	Regional Autonomy Law
Reformasi	Reformation; referring to the democratisation and decentralisation processes in Indonesia after the resignation of President Suharto in 1998
Resp.	Respondent
SSIF	Semi-structured interview form
UNMUL	Mulawarman University (Universitas Mulawarman)
WWF	World Wildlife Fund
YK-RASI	Conservation Foundation for Rare Aquatic Species of Indonesia

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1. INTRODUCTION

The clash between economic and environmental agenda's is an enduring issue in policy-making processes and our society as a whole. Economic actors consider the environment a profitable public resource which can bring prosperity and economic growth. In general, politicians support this point of view as well; the realisation of national economic growth can create a considerable social basis for certain political decisions. Sheer economic arguments are still clearly dominating during decision making processes and even serve as justification for non-sustainable activities. Nevertheless, the scale and intensity of some economic activities cannot be explained by rational nor ethical arguments. Therefore, environmental regulations are necessary to limit economic activities in a certain way; to prevent environmental degradation or to safeguard the living conditions for citizens. Nonetheless, these rules can seem to be adequate on first sight, but in practice they can be rather flexible and even avoidable by certain actors. Therefore, the civil society should play an essential role to create a counterbalance against the market and the state. The interaction between actors with different stakes and interests can be considered as a game in which all the actors try to gain power. At best, the game is balanced through a combination of several agenda's. However, the game becomes out of control when the distribution of power among the actors is unbalanced. A lack of strict and adequate rules could make the situation even worse; it could lead to unsustainable and dangerous situations for all the actors. Some of these controversial games reach the media and some stay unknown. This research in East Kalimantan, Indonesia, will reveal such a complex game.

The precise location of this game is the sub-district of Jempang in which the power position of citizens, palm oil companies, and governmental bodies will be unravelled. Since the arrival of palm oil companies in this area, during the mid-nineties, the game and the related power positions of actors has changed significantly, just as the state of the environment did. The Indonesian government considers the palm oil sector as the opportunity to gain international funds and investments, and advocates the rapid growth with economic arguments. By 1999, the Indonesian government handed out large forest areas to domestic and foreign investors to stimulate the Indonesian palm oil sector. This was also supported by the global liberalisation policy, handed-down by the World Bank and the International Monetary Fund (IMF). Consequently, many formal and informal barriers to invest in oil palm plantations were to be removed to achieve true trade liberalisation (de Bruin, 2004). Since 2005, Indonesia has been the world's largest and most rapidly growing producer of palm oil; caused by the supportive attitude of the Indonesian government, the wet tropical climate which provides an ideal growing condition for oil palm, the abundance of land, and cheap labour. The total area of land officially designated to oil palm plantations in Indonesia is estimated to be around 6.2 million hectares, and all of these plantations are planned to become productive by 2010 (IPOC 2006). Ministry of Forestry indicated that close to 70 percent of the oil palm plantations located in Indonesia were planted on land that formally fell within Indonesia's forest estate between 1982 and 1999 (Casson, 2000). Especially in rural areas, just as the research location in East Kalimantan, palm oil companies can be considered relative dominant economic actors. The development of the palm oil sector in East

Kalimantan is a typical example of the ‘peripheralisation’ of environmental loads, caused by the global material consumption, and a national policy that stimulates the extraction of natural resources. This could have negative consequences for the environment, but for the social and economic development as well. Muradian and Martinez-Allier (2001) argue that primary exports, such as palm oil, may induce countries to get caught in a poverty-environmental-degradation trap, which may exacerbate the income gap at a global level. However, it is important to realise the extensiveness and diversity of the Indonesian nation; compared to West Kalimantan or Sumatra, the palm oil sector in East Kalimantan is relatively small. Therefore, it also creates opportunities for intended oil palm investors in the future.



Figure 25. Satellite image of Indonesia¹

The figure above shows the research location in the province of East Kalimantan (*Kalimantan Timur*). With an area of 204,534 km², East Kalimantan makes up over 10.7 percent of national territory, making it the largest province in the country after Papua. Much of the territory consists of mangrove, rain, swamp forests and wetlands, with unique ecosystems and many biodiversity hotspots. The primary transport routes, because of a poor road network, have been along its waterways. With 775 kilometres, the Mahakam is the longest river in East Kalimantan and function as an important transport route for goods and people. The population of East Kalimantan comprised 3.02 million in 2007, and is growing at 3.1% annually in 2000-2006, which is considerably above the national average. Explanations for the population growth are, among other things, migrants from Java and Bali stimulated by the government-sponsored transmigration programme. However, a much higher number arrived spontaneously, attracted by the economic opportunities offered primarily by the mining, forestry and oil palm industries (Brown, 2009, pp. 115-119). According to policy makers in Jakarta, East Kalimantan is considered periphery; a rural area with many economic possibilities because of the richness in natural resources. This economic perspective can be seen in its average per-head gross regional domestic product (GRDP), which is the highest in the country: in 2006 it stood at Rp. 67.63 million, compared with a national average of Rp. 14.84 million. The difference is significant, but it is important to mention that the living costs

¹ Source: <http://internationalhealthperspectives.files.wordpress.com/2011/02/indonesia-foto-satelit1.jpg>

are also much higher, compared to Java and Bali for example. Moreover, the distribution of income is uneven. With 11.6 percent of the population officially living in poverty in 2004, the province only ranked ninth best out of the 30 provinces. In addition, East Kalimantan knows the highest official unemployment rate of Indonesia, at almost 13 percent in 2007. The overall size of the economy, as measured by current GRDP in 2007, covers 6 percent of the national total and is a remarkable largest single provincial contributor outside Java. The strong economical performance of East Kalimantan can be explained by the production of petroleum and gas, followed by surface coal mining, which is dominating the provincial economy. Forestry accounts for 20% of the regional economy, as compared with less than 5% nationally. It is important to bear in mind that illegal activities (logging and plantations) cause significant losses to the provincial and national treasuries. Agriculture is of minor commercial importance in most areas of the province, although the sector accounted for 36% of the employed workforce in 2007. With an annual production of 300,000 metric tons, palm oil is the biggest commodity by far in the commercial agriculture sector. Other smaller agriculture commodities are cocoa, coconuts and rubber (Brown, 2009, pp. 120-122). With the given support of the Indonesian government, it is almost inevitable that the number of oil palm plantations in East Kalimantan will increase in the future. In the sub-district of Jempang, where several oil palm plantations are located, it is not hard to imagine that the game and the related power positions of actors has changed significantly, which is negatively effecting the human population and the surrounding environment.

1.1. RESEARCH OBJECTIVE AND RESEARCH QUESTIONS

The context of the research location is a typical example where economic, political, socio-cultural and environmental factors become interwoven and can be considered extremely complex and problematic at the same time. Recent developments made it possible to approach the problematic situation in a more positive way. Environmental NGOs criticised the scale of the mono-culture and the flexible compliance with governmental regulation of oil palm plantations in general. In response to the environmental concerns and the pressure from the civil society, Unilever has committed to use only palm oil from certified ‘sustainable’ sources by 2015, and all palm oil used by the company in Europe will be certified as ‘fully traceable’ by 2012 (Unilever 2008). Furthermore, the national Indonesian government realises that the political decentralisation has a large negative influence on the environment. In May 2009, the Ministry for the Environment instructed local administrations to cancel any plans to convert natural forest areas into commercial sites, claiming floods and landslides could worsen if clearing activities continue. Namely, the national government received too many requests from local administrations for permits to convert remaining forest areas into plantations and other profitable commercial projects (Simamora, 2009). The province of East Kalimantan demanded more research and possible policy and legislative recommendations to reduce the ecological and social problems in the middle Mahakam lake area; the wetland area where the research location is situated. There is a growing demand for research that has a holistic approach, which combines political, socio-cultural, ecological, and economical developments. This is exactly the kind of information that this research will deliver. During the research process, YK-RASI (Conservation Foundation for Rare Aquatic Species of Indonesia) played a facilitating role.

The research objective of this study is threefold. Firstly, since the environment is a manifest theme, it involves the gathering of information on perceptions of environmental changes in the sub-district of Jempang. Secondly, the power position of citizens, palm oil companies, and governmental bodies, which are influencing the environment to a certain extent, will be described and analysed. In effect, this second objective will create a realistic view on and more understanding of the impact of the increasing popularity of a natural resource on local level. Thirdly, the outline of the environmental changes from a social, economic, and political view will create possibilities in order to contribute to the discussion about sustainable development on a local level. The role and relationships between state, market and civil society on a higher level, will be taken into account to come up with recommendations for local actors and policy makers based on practice and theory. The central question of this research and the related three sub-questions, in order to answer the central research question, are formulated as follows:

To what extent do citizens, palm oil companies and governmental bodies influence the environment in the sub-district of Jempang, how is this related to their power position and what are the possibilities for a more sustainable future?

- 1) *What are the environmental changes in the sub-district of Jempang compared to twenty years ago and which actors are responsible for these environmental changes?*
- 2) *What kind of power position do citizens and palm oil companies occupy in the sub-district of Jempang and to what extent is their position influenced by local governance?*
- 3) *What could make the future of the sub-district of Jempang more sustainable, regarding the power position of citizens and palm oil companies, including the role of local governance?*

1.2. SCIENTIFIC AND SOCIETAL RELEVANCE OF THIS RESEARCH

In the last decennia, the policy of the Indonesian government has created an economy that is based on the export and exploitation of the natural resources. This kind of policy has stimulated a variety of economic actors that have one thing in common: their activities are focused on short term benefits and do not take any account of the consequences for the environment and human population. The problematic context of this research area is quite complex; as there are several causes for the negative environmental developments, there are even more negative consequences that are strongly interrelated and intensify each other. Despite the scale of the irresponsible activities, there are still no presented solutions or alternatives for the economic activities and governmental policy. The purpose of this research is to obtain knowledge and insights in order to understand the problematic context and to come up with recommendations for local actors and policy makers based on practice and theory. There is a distinction between theoretically oriented and practically oriented research (Verschuren & Doorewaard, 2007). In this case, there is a general lack of scientific research, especially research with a holistic view that combines economic, socio-cultural, political, and environmental factors. The Indonesian government is aware of the ecological and social problems in the research area and demanded more research and possible policy and legislative recommendations to reduce the ecological and social problems. In this research we can speak

of scientific and policy relevance, while there is a lack of scientific knowledge and it therefore gives this research an explorative character.

This research is especially relevant for the society and the current governmental policy. Governmental policies in Indonesia do not involve local people, especially the rural poor, in the development of policy solutions. This is a regrettable, because the perspective and ideas of local citizens could be a huge addition to possible policy solutions. Their experience of, dependency on, and daily interaction with, the local environment makes them ecological experts able to produce detailed accounts of environmental change and degradation. Such local and indigenous accounts are important as they reflect perceptions of aquatic degradation and express indigenous interpretations of and concerns about water quantity and quality. Another important aspect of this research is to extensively outline the role and power position of citizens and palm oil companies in the research area. By doing this, it is possible to formulate practical solutions for several problems in the area, which will be beneficial for the environment and society as a whole. This information will not only be applicable for citizens, companies and governmental bodies in Indonesia, but in other parts of the world as well. It should especially create more awareness for the same actors in Northern countries. Because of the globalised society, causes and consequences of certain activities and decisions can be found and felt far outside the national border. For an ordinary consumer, it is quite difficult - or almost impossible - to be completely aware of the impact that they have on the environment and human communities on a local and global level. Even governments and transnational companies in the North have difficulties to control the extensive and fragmented production chains, concerning the compliance of environmental and social standards and regulation. Not only due to the complex globalised economy, but also due to a lack of long term vision and the unwillingness to strive for a sustainable future. Because ultimately, we must return to a situation in which the economy is encased in the entire interplay of social relations and our environment, and not the other way around, as is mainly the case. Ethical boundaries, moral norms and values, and shared responsibility should be part of all aspects of life; in the market and governmental policy as well. Consequently, this research is more practice oriented, as it will create more clarity in the range of actors with different visions, resources and activities that are attendant in the research area. The policy and societal relevance of this research lies in the search for knowledge, truth and a greater understanding of actors in the societal, economic, and governmental domain and the formulation of sustainable solutions and recommendation. Through this, the governmental policy and economical activities should allow more ecological and societal aspects in their management, and consequently, this will hopefully lead to less degradation of the environment and less vulnerable livelihoods of local communities. In other words, the relevance of this research is a combination of explorative scientific research and practice/ empirical oriented research, in which the policy and societal relevance remains a central element.

2. THEORETICAL FRAMEWORK

In order to reveal the game in the sub-district of Jempang, including the power positions of the actors and their impact on the environment, it is necessary to start with outlining the arena with the actors. Therefore, a logical starting point of the theoretical framework is to explain the three main spheres or institutions of our global society, which are the state, the market, and the civil society. Specifically, the vision and activities of these institutions and the related power positions are important aspects in this research. A theoretical analysis, using the mental models by Dubbink, describes the different relationships between the three institutions on meso level, which will function as an additional part of this theoretical framework and also as a useful start to understand the complex interplay between actors in the political, economic and societal field. When this introductory framework is being explicated, the logics of fields by Bourdieu will be explained; it will function as the main part of the theoretical framework of this research. The logic of fields is a theory that analyses the vision and the activities, and the related consequences of actors in a specific field. It also take account of existing power relations; the extent of power between these actors and the causes of these power differences. Furthermore, this theory attaches importance to different species of capital that actors can use to gain power and the factors that lie behind a chosen strategy in a specific field. The logic of fields is a useful tool to introduce and unravel an unknown (research) context. Because of the fact that the logic of fields does not elaborate the rules of the game in an extensive manner, I needed a theoretical addition to the basic theory: legal pluralism. Legal pluralism will be used in the theoretical framework to understand some procedures and strategies in the Indonesian context. The combination of these three theories for this research has been chosen by several relevant factors that could function as arguments for the use of these particular theories: firstly, the theories have the ability to deal with a non-Western research context and to analyse this context in a holistic way on micro level; secondly, the theories take into account the formal processes and the informal processes in a dynamic context with changing power relations; thirdly, this framework creates the possibility to link the developments on a micro level with a meso level. In other words, I attempt to avoid the existing problematic gap between the dominant theories and current realities (Mehta, Leach, Newell, Scoones, Sivaramakrishnan, & Ways, 1999). A theoretical model of the whole theoretical framework combined with the research objective and questions will be discussed in the end of the theoretical chapter. This model clarifies the whole theoretical framework and creates an understanding of how it will be used in this research. Furthermore, it has a supportive function in the empirical elaboration of the used theory for the research methods.

2.1. STATE, MARKET AND CIVIL SOCIETY

In this research, environmental problems will be defined as the loss and disappearance of non-human life and eco-systems. Additionally, the loss of quality of the natural environment of present and future generations of people, as well as the resulting decline in health and quality of life in the human- and non-human life will be part of the definition (IUCN, 1991). From a sociological perspective, environmental problems are often described as a collective problem. However, environmental problems are not the result of the sum of our individual wills, but the consequence of the sum of our actions. This is not the direct result of a collective will but the

sum of individual wills that have manifested themselves within a specific institutional context (Dubbink, 2003). These actions are the outcome of a chosen strategy by an actor, which is playing the game to gain power. Each actor can be divided in one of the three main spheres or institutions: the state, the market, and the civil society. The causes of environmental problems, which are societal problems as well, can be found in the interplay of these three institutions. To grasp this complex interplay between actors, it is necessary to create a theoretical framework which can give us more clarity and support to understand and analyse the empirical data. The basis for this theoretical framework consists of the theory of Dubbink (2003): the mental models. This theory describes the different relations between the three institutions, based on a theoretical analysis. Dubbink uses mental models in order to understand and reflect upon the institutional order of a particular context. Mental models must be seen as different ways of thinking about the organisation of the social order; they indicate what the relationship between the state, the free market and civil society should be like and address the main structural aspects of each fundamental institution. Before I will discuss the three institutions separately and subsequently the three main mental models, it is important to mention the normative starting point of Dubbink's theory, which is the context of a liberal democracy. The created mental models are based on or could be used in a liberal democracy, in which the individual takes a centre stage and has central values as freedom, equality, autonomy, justice and solidarity. Dubbink is rather Western-oriented, but the main part of his theory could be used for other non-Western contexts; in broad outlines it is quite universal.

The first institution, the state, can be divided into a judicial and a political-administrative section. This research is not concerned with the former section of the state. The latter section deals with public issues and can be further divided into a political and a bureaucratic section. The political section covers all bodies whose representatives are elected, either directly or indirectly. The bureaucratic part covers the entire spectrum of bodies whose members support the policy constructed by the political section. According to Dubbink, political parties should be regarded as bodies from civil society operating within the state, but in fact, this is not always the case. The state has the responsibility to deal with and respond to the most various problems and activities in society, as long as they proceed from the general interest. The state's tasks should be limited to public issues, but at the same time, nowadays, a whole different range of issues can be classified as public issues (Van der Pot and Donner, 1995). The second institution, the market, is the sphere of economic production. It is often characterised as a social domain in a specific institutional context in which people act in accordance with their own self-interest and where people can experience their freedom, although reckoning with the competitive atmosphere; the self-interest is considered the main motivation of actors in market (Habermas, 1981; Boatright, 1999). This means that the market is selective in the kinds of products that it normally produces; it mainly produces certain goods that can be consumed by the individual consumer. Therefore, the market is much less suited to producing other kinds of goods, collective goods for example. The nature of these goods requires coordinated action in order to produce adequately; these goods therefore cannot be adequately produced on the market. Mainly, environmental goods are usually seen as collective goods (Dubbink, 2003). The third and last institution, the civil society, is an analytical concept that in reality crosses all kinds of borders; it forms a dimension of the social world. Civil society as a scientific concept is quite new and is sometimes difficult to understand, caused by its

intangibility and broad definability. Cohen and Arato (1992) have come up with a clear working definition:

We understand 'civil society' as a sphere of social interaction between economy and the state, composed above all of the intimate sphere (especially the family), the sphere of associations (especially voluntary associations), social movements, and forms of public communication. (...) Civil society in fact represents only a dimension of the sociological world of norms, roles, practices, relationships, competencies, and forms of dependence or a particular angle of looking at this world from the point of view of conscious association building and associational life. (pp. ix/ ix-x)

This theoretical contribution creates a better understanding of how to interpret this institution. The condition of a civil society may differ hugely, depending on the context. If there is an active and well functioning civil society in a particular context, in which firstly, a normative discussion can take place about the right interpretation of liberal democratic values in the public and private domain and about desirable legislation and policy; secondly, it is able to wield influence on the market and state, only then the civil society can steer the system of the state and market into the 'right' direction. This influence can be effectuated by the democratization of the market and the state (Dubbink, 2003).

Now that the three main institutions of our society have been explained, it is time to theoretically analyse the possible mainstream relations between these institutions on the basis of the mental models, as explained by Dubbink (2003). The first dominant model in liberal democracies, especially in the 20th century of Western nations, is the indirect responsibility model. An important aspect of this model is the restricted responsibility of market actors for public problems, even if those problems originate in market processes. The market is seen as a domain in which people pursue their own self-interest: the only responsibility they have is to abide the law and the rules of common decency. The indirect responsibility model assumes a strict division of labour between market and state. This division not only benefits the rationality of the market but also strengthens democracy. The state is seen as representation of democracy; the citizens determine legislation in a true democracy, either directly or indirectly. Related to this perspective, the role of the civil society is nil. Electing administrators and public representatives is the only role allocated to civil society. As a result of these characteristics, the state has an almost exclusive responsibility for public issues and is the only institution that is in a position to change the limiting conditions. Therefore, the state should be powerful enough to carry out its tasks and control the market by means of limiting conditions. According to many scientists, the model is outdated and it no longer reflects the needs of present-day social circumstances. Moreover, it causes many environmental and societal problems. The state is often unable to exercise its powers to the full and it is no longer geared towards the kind of management that is needed nowadays.

It seems as if the current society needs another mental model that is able to react on complex global developments and solve public problems. This alternative model, according to Dubbink, is the direct responsibility model. The direct responsibility model seems to be the best alternative mental model to cope with structural system errors, public problems and a lack of moral and ethical norms and values in the institutional order. Before I will discuss this model, it is important to mention that these two models are not the opposite of each other. Both

models place a fair moral burden on market actors, but differ when it comes to controlling the market in order to deal with public issues. A core characteristic of the direct responsibility model is that actors on the market should take a certain personal responsibility or use at least some of their freedom for dealing with public issues. The idea behind this is to operate as a citizen (at least to some extent) when an actor becomes active in the market. The market should not be controlled exclusively by limiting its conditions by the state. Consequently, this will decrease the power and the responsibility of the state; it no longer has exclusive responsibility for public issues. This implies that market parties should consult and cooperate with the state in all phases of the policy process. A consequence of this perspective is the disappearance of the strict division of labour between market and state. Moreover, civil society organisations will be empowered by becoming part of the consultations between market parties and the state. Civil society is the sphere of communicative action and is necessary to adapt the idea of democracy and the role of the state and the market to the modern context.

The last mental model, co-management, is a model which has greater similarities with the direct responsibility model in comparison to the indirect responsibility model. However, it still has some important shortcomings and dangerous side-effects for a society based on liberal democracy. At the centre of co-management lies the notion that greater use should be made of the market actors themselves when it comes to managing public issues. The idea behind this perspective is the lack of hope of market actors taking independent action to initiate a process of ecological modernization. Co-management takes away the strong division of labour between the market and the state, resulting in a system in which the market, civil society, and a flexible state maintain intensive contact with each other, exchange information, discuss and cooperate (Weale, 1992). An advantage of this mental model is the decreasing responsibility of and burden on the state. Nevertheless, this mental model also has some problematic drawbacks. Some similarities between co-management and (neo)-corporatism can be found; especially the strong cooperation between market and state could cause undesirable developments. That is why the liberal-democratic doctrine is against this cooperation: market parties and the state should keep their distance from one another. Firstly, the state may gain direct influence over market processes and this can never do good to the rationality of the market. Secondly, market actors could become more powerful by influencing the state, including decision-making processes. Thirdly, the combination of the strongest powers, state and market, within society could threaten the plural character of liberal-democratic society. The distribution of various centres of power is an essential element and an important guarantee for freedom in a society.

The direct responsibility and co-management are two models that have the ability to change the society and system towards a more sustainable one. But the change of the institutional order is not the only solution for dealing with environmental issues. An important and crucial aspect to mention is how our society views the environment. In current society, the environment is considered an economic good. People take no account of the environment when they make their (economic) decisions because the environment as such has no price (Barbier, Acreman, and Knowler, 1997). Furthermore, there is no clearly defined and enforceable property regime applying environmental goods. In other words, the environment lacks an owner and this causes mismanagement of environment. In cases where the state is the

owner of environmental areas, which is not a rare phenomenon, the state is responsible for this specific area and should be blamed for possible environmental problems.

The concept of sustainable development and its implementation is part of the solution for environmental problems. Sustainable development is a societal guiding model that asks for the integration of economic, social and environmental issues in all societal spheres and levels in the short- and long-term. Because of the broadness of the concept, it can be pursued by everyone in a variety of ways. According to Steurer et al. (2005), the sustainable development concept consists of a balanced and intertwined situation between the economic, social and environmental performances of an institution. Essential additive information about this concept comes from Dubbink (2003):

This concept can be given substance in terms of material attributes or in terms of processes. Materially a society achieves sustainable development when it is organized in such a way that health, quality of life and the condition for the life of present and future human generations are protected; a society that develops sustainable is also able to preserve present and future non-human life and its habitat. Sustainable development means taking the need for sustainability into account in every phase of product's life cycle. The market has to modernize ecologically. (pp. 13-14)

While the mental models of Dubbink provide a theoretical basis concerning the relationships between the main institutions on meso level, it does not consist of theoretical tool to analyse and describe the different relationships between the three institutions on micro level. For this research it is necessary to outline the power position of actors and to analyse the causes for these differences in practice. The logic of fields by Bourdieu will provide the theoretical tools to describe and analyse the empirical data in order to answer the research question.

2.2. THE LOGIC OF FIELDS

By now, we have reached the main theory of this research; 'the logic of fields' by Bourdieu, which contributes to providing answers to the research question and the related second and third sub-questions. It is a theoretical framework which is useful for a holistic exploration and description of a specific context: a game with actors, in which their vision and activities can be analysed. The extent of power, including the use and division of capital to gain power, between the actors and the consequences of their activities and behaviour can also become part of the analysis. Ultimately, it will give us a quite realistic representation of a specific (research) context. A central element in the logic of fields is to think relationally: what exists in the social world are relations. The field is seen as a critical mediation between the practices of those who take part in it and the surrounding social, economic and political conditions. The structure of a field consists of objective relations between positions defined by their rank in the distribution of competing powers or species of capital (Bourdieu & Wacquant, 1992). The relationship between the state, the market and civil society will be a central element in this research and therefore, it is most suitable to start the exposition of the theoretical body from the actor's position. It will also be a practical entrance to get an overview of the actors who are socially constituted as active and acting in the research field. A supportive figure, which could be useful to understand the exposition of the logic of fields, can be found at page 12. In this figure, we can see the entire process that has taken place in the theory of the logic of fields. It

is a sort of hermeneutic circle wherein the key concepts are incorporated. I will discuss the key concepts on the basis of this figure, in a chronological order. The actor is the leading subject in the guiding figure; it is formed by the related habitus, which is the first key concept. Each actor wants to gain a certain amount of power through the use of species of capital (the second key concept). At the same time, the extent of power and the chosen strategy of an actor can change in each field (the third key concept).

This first key concept, habitus, wants to break with the intellectualist philosophy of action represented in particular by the theory of *homo economicus* as rational agent. Even rationality is bound, because the human mind is generically limited and socially structured. Habitus is a structuring mechanism for social practices that operates from within actors; a theory of practice of internalised social norms, including an embodied point of view and patterns of behaviour. These are ways of institutionalisation and socialisation; by making laws and rules familiar. At the same time, these processes restrict the room to manoeuvre in a specific field. By the social conditions where they were acquired, habitus is socially structured which means it is related to the social-economical background of an individual or group; it includes the mundane economic conduct of everyday life. In other words, habitus reflects the durable and transposable systems of perception, appreciation, and action that result from the institution of the social in the actors and fields (Bourdieu and Wacquant, 1992).

The second key concept is capital or different forms of capital. These fundamental forms of capital are different forms of power, but the relative importance of the different forms will vary according to the field. The relative value is determined by each field and by the successive stakes of the same field. Value depends on the existence of a game in which this competency can be employed: both as a weapon and a stake of struggle, that which allows its possessors to wield power, and influence, and thus to exist. At each moment, it is the state of the power relations between actors that defines their position. The input and output of capital by particular actors or individuals take place in the defined game. Thus, the most important point is to zoom on a particular context and unravel the role of the diverse kinds of capital. Individuals and actors are stratified according to the volume and the composition of the capital they possess. It is only possible to explain the structure and functioning of a game by paying attention to all possible forms of capital and not only the specific capital, which is recognised by mainstream economic theories. Nonetheless, it would not be a rare phenomenon when the different forms of capital are derived from economic capital. Bourdieu argues that capital presents itself in three fundamental forms: 1. Economic capital: material wealth in the form of property, money, income, land, access to natural resources; 2. Social capital: social resources in the form of networks and contacts based on (institutionalised) relationships of mutual acquaintance and recognition that accrue to an individual or a group; 3. Cultural capital: informational assets and education (quantity and quality). One form of capital can be converted into another. The most powerful conversion is the conversion to a fourth form of capital: symbolic capital (legitimate authority in the form of prestige, honour, reputation, and status). The power relations between occupants of different positions are embedded and reproduced through key institutions within the field. The state, as an actor, has a special position in the field of power. In fact, the construction of the state goes hand in hand with the constitution of the game and the access to different species of capital and their reproduction. Naturally, this all depends on the condition of the state and the related amount

of power (Bourdieu and Wacquant, 1992).

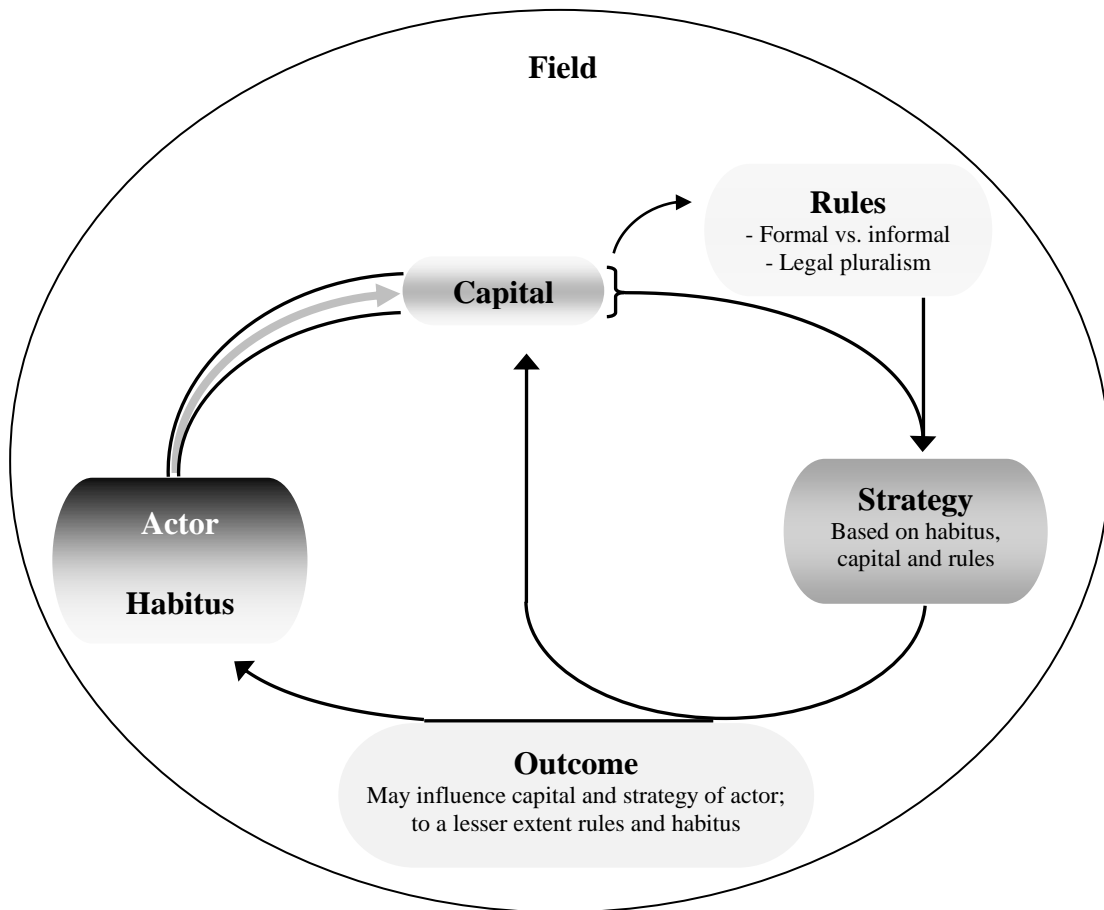


Figure 26. The supportive figure of the logic of fields

The third key concept consists of the field; it reflects the context where all strategies and activities of the actors take place. These practices are not merely products of habitus and capital, but the outcome of the relations between habitus, the different forms of capital, and the rules of a specific context in which an actor acts. A field may be defined as a network of objective relations between actors. The dynamics of a field lie in the form of its structure and various specific forces that confront one another. Capital confers a power over the field, over materialized or embodied instruments of production or reproduction and over the regularities and the rules which define the ordinary functioning of the field (thereby over the profits engendered in it). Besides, it also consists of struggles aimed at preserving or transforming the configuration of these forces. The strategy of actors depends on their position in the field, that is, in the distribution of the specific capital, and on the perception that they have of the field depending on the point of view they take on the field (Bourdieu and Wacquant, 1992). Those actors that dominate a given field are in a position to make it function to their advantage but they must always take account of and contend with the activities and possible resistance of the dominated. In practice, every field has its own logic, rules, regulations and regularities. The activities and behaviour of actors in a specific field will be restricted by rules. Within the rules, actors and individuals can become active to conserve their capital, but they can also transform (partly) the immanent rules of the game. Especially those that aim at seizing power over the state and use their capital to influence the state policy or other forms of power.

Within the rules, a difference should be made between formal (formal procedures of decision making and implementation) and informal rules (unwritten rules, traditions, 'routines' of interaction). Formal rules are easier to recognise, but informal rules, which might be influenced by habitus, can be less visible at first sight. It is important to realise that rules, especially informal rules can be crucial during the exchange of capital. Because of the fact that the logic of fields does not elaborate the rules on an extensive manner, I needed a theoretical addition to the main theory of the logic of fields. Equally important is the context of the field in which this research takes place. Because of the political decentralisation in Indonesia it has become more difficult to get an overview of the power relations between the state and the market. Governmental bodies are more fragmented nowadays and this results in changing power structures related to formal procedures, decision making processes, rules and regulations and its implementation. Beyond the fragmentation of the political power, there are two other reasons to use an additional theory which is related to the cultural context. In the rural Indonesian context, there is a deep-rooted existence of indigenous jurisprudence: *adat*. *Adat* corresponds mostly to the unwritten tradition and informal rules and its content varies from locality to locality and from island to island. The other reason is the existence of corruption in the Indonesian context. These informal rules and activities that are based on informal agreements are important aspects to take account of in this research.

A suitable analytical tool to comprehend these rules can be found in the concept of legal pluralism. Legal pluralism is a theoretical tool to understand law 'in' society, which explores the relationships between the various legal orders, the types of interest, and the social relationships and practices involving resources in local contexts of social interaction (Benda-Beckmann, 2006). It is possible to employ legal pluralism as an analytical tool and as an explanatory tool as well. In this research, legal pluralism will be used as an explanatory tool to create insights in the fulfilment and implementation of governmental regulation and other social rules and peculiarities in the field. By and large, there are at least two major understandings of what the term legal pluralism means. The first is 'weak legal pluralism' in which the sovereign commands different bodies of law for different groups in the population. This weak legal pluralism is seen as too state-centred and it does not pay enough attention to the dynamic interaction between legal orders or to the relationship between non-state semi-autonomous social fields. The second understanding is 'strong legal pluralism' where neither all law is state law nor administered by state institutions; the co-existence of legal orders which do not belong to a single system. These different legal orders exist together and do not necessarily have to recognize or negate each other. In this 'new' legal pluralism, the main focus has shifted from examining the effect of law on society or otherwise to conceptualizing a complex and interactive relationship between official and unofficial laws (Salim, 2007).

In conclusion, in order to construct the game, one must identify the actor. The specific form of capital used by an actor determines the kind of formal and informal rules that are applicable to the capital and actor. The outcome of the relations between habitus, different forms of capital and the rules are influencing the activity and chosen strategy of an actor. Thus, the strategy of an actor is based on the habitus and the species of capital which could be used to gain (more) power, but the chosen strategy will be restricted by formal and informal rules depending on the specific context. The outcome of these interactions is almost always unintended and at the same time unpredictable, caused by the different content of habitus,

capital and rules, which leads to a different interaction of capital. In a certain way, the logic of fields structures habitus, and determines the available capital and related rules, which has a final effect on the strategy. Simultaneously, the outcome may change the content of an actor's capital and strategy and to a lesser extent its habitus. Within the rules, actors can become active to conserve their capital, but they can also (partly) transform the rules, influence policy of companies, governmental bodies, or other ways to wield power.

2.3. EMPIRICAL ELABORATION OF THE THEORETICAL FRAMEWORK

Since the theoretical framework is now complete, we have reached the point to make the connection from theory to practice. The application of the theoretical framework will be outlined in this part of the theoretical chapter. Firstly, the sub-questions of this research will be connected to the different parts of the theoretical framework. Secondly, the empirical elaboration of a theoretical part, which is applicable for a specific research sub-question, will deepen the theory in a more practical way and it will create more understanding of how the sub-questions and the central research question will be answered, and which kind of data and methodology will be used. To improve the coherency and clarity, I have combined all three theoretical concepts - the logic of fields, legal pluralism, and the mental models in the supportive figure on the next page, through which relations between and with the specific sub-questions will become more visible. The theories will be used during the unravelment of the game in the sub-district of Jempang in relation with the changing environment. Because of the blatant environmental focus of this research, it has acquired a central position in the figure of this theoretical framework.

The presentation of the empirical data starts in Chapter Five. Logically it will begin with the first sub-question: *“What are the environmental changes in the sub-district of Jempang compared to twenty years ago and which actors are responsible for these environmental changes?”*. To answer this first sub-question, the empirical data related to the perceptions of the condition of the environment and the extent of change, according to the villagers who are living in the sub-district of Jempang, will be analysed. These perceptions will be presented by the following environmental topics: water and sedimentation, forest and plants, and aquatic species and its population. The discussion of these topics will also describe the causes and consequences of possible environmental changes, which is, in fact, the outcome of the actor's activities and strategies. In the guiding figure of the integrated theoretical framework on the next page, we can locate this part of the research process in the centre of this figure: the green environmental circle, surrounded by the elaboration of the logic of fields by Bourdieu and the outer circle referring to the mental models of Dubbink. The environmental core will be revealed at the beginning of the empirical chapters, therefore, it will give the reader a clear outline of the local vision towards their environmental situation and its changes. Furthermore, this information is essential to understand the strategies and power relations (a result of habitus, capital and rules) of villagers and palm oil companies in the research area, which will be discussed in Chapter Six and Seven.

The main part of the empirical results will be used to answer the second sub-question: *“What kind of power position do citizens and palm oil companies occupy in the sub-district of Jempang and to what extent is their position influenced by local governance?”*. Through the use of the empirical data, key concepts of the logic of fields, such as habitus and capital will be

unravelling. This will create more clarity concerning the strategies of citizens and palm oil companies in the research location. Through this description and analysis, the power position of each actor will become clear, just as the rules that restrict the room for manoeuvre for each actor. The role and influence of the local government towards citizens and palm oil companies will be analysed as well. The government is creating the borders to wield power for these actors after all. At the same time, the government also has a mediating function between these two other actors and the activities in the field itself. All in all, the second sub-question will unite all collected information, through which it will become clear what kind of power position the citizens and palm oil companies occupy and what strategies these actors use to gain power. There even can be activities and strategies that cross the line of specific regulations or possibilities to bypass regulations, by means of using a form of capital. Such developments could be explained by the theory of legal pluralism.

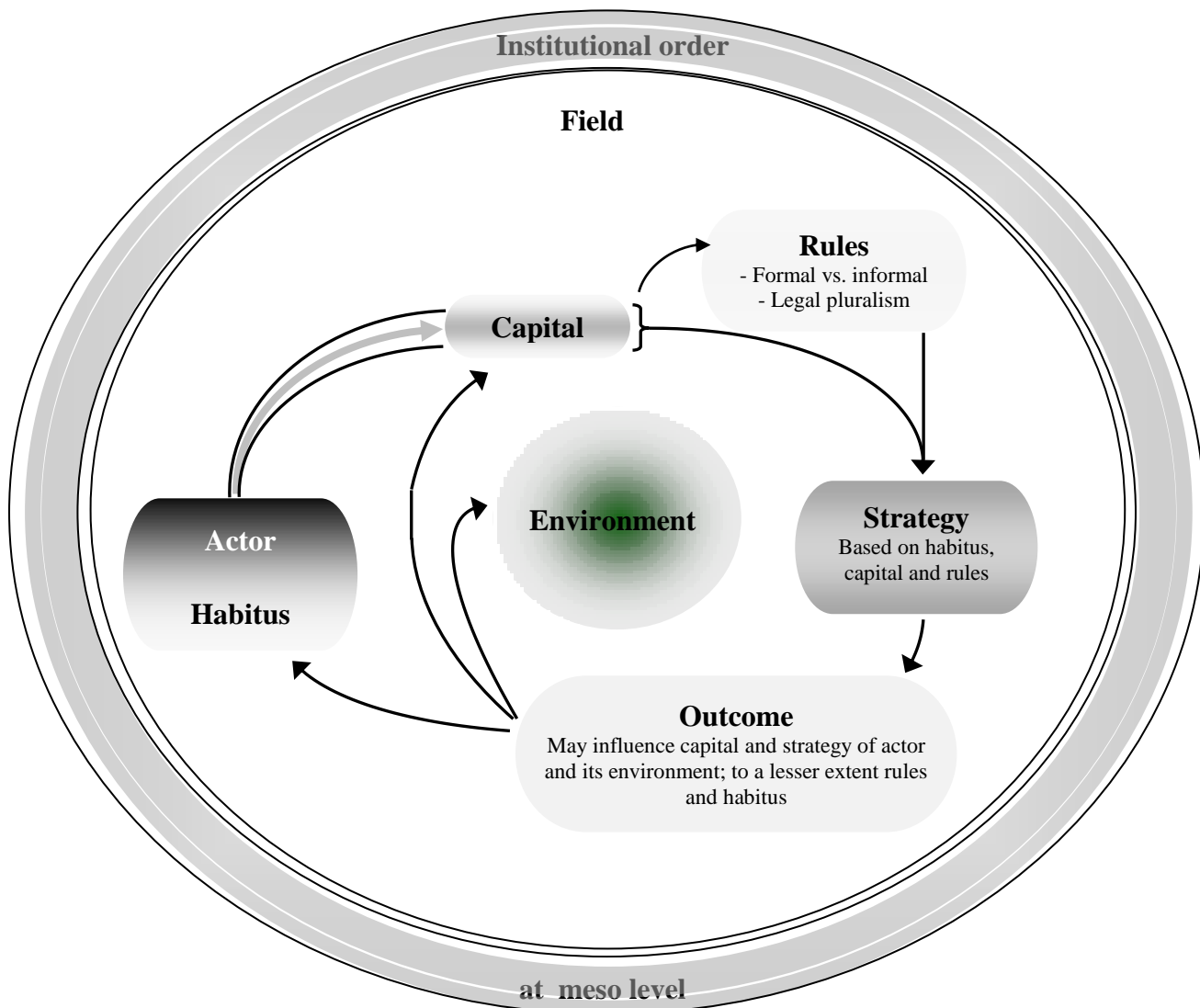


Figure 27. The supportive figure of the integrated theoretical framework

Chapter Six is concerned with the power position of citizens in the sub-district of Jempang. Firstly, the habitus of the villagers reflects their perception, appreciation, and action related to their social and natural environment. The operationalisation of this theoretical concept in this social-environmental research has taken form by collecting data concerning

the perceptions of the environment, oil palm plantations and the government, which also includes feelings of trust, threat and injustice. Naturally, habitus as a concept is too broad to make it totally measurable in a research; only a part of this concept will be described and analysed. Secondly, capital will be translated into an empirical analysis that is divided into three different forms of capital: economic, social, and cultural capital. Symbolic capital, the additional fourth form of capital is the hardest form of capital to 'measure'. I decided to concentrate on the three fundamental forms, because symbolic capital overlaps the other forms of capital, and it does not create additional significant information in order to answer the second sub-question. Economic capital is operationalised as, enumerated in a chronological order: land ownership, land cultivation, sources of income, the socio-economic status, the main expenditures, and access to water and electricity. The empirical translation of social capital consists of the feelings of mutual trust among village members; the supportive behaviour between village members; participation in social organisations; participation in collective activities; and conflicts in the village and in the sub-district in general. Cultural capital consists of data related to the highest education level reached of a household; the access to news or information; and the knowledge of environmental regulation concerning the performances of palm oil companies.

Chapter Seven deals with the other important actor in the research context: the palm oil companies. This actor will be analysed by the key concepts of the logic of fields as well. However, this will be done in a less extensive way, since this research has a social-environmental focus. The elaboration of the key concepts will be made based on the main discovered topics during Chapter Six. In effect, it will reveal the other side of the mentioned question at hand, according to people who are connected to the palm oil sector. The first concept, habitus, will be operationalised as follows: the company's vision towards the environment and local communities; the future perspectives and plans; the definition of and approach to possible problems, regarding the disputes with villagers, environmental degradation; and the governmental policy concerning environmental performances. The analysis of the second main concept capital will start with the economic situation of the relevant palm oil company. Firstly, the financial situation in the previous years, the current situation and expectations for the future will be described. Followed by the access to land, the permit allocation process for palm oil companies, and the employment policy. Social and cultural capital will be discussed combinedly. Herewith, the networks between palm oil companies and governmental bodies and the palm oil sector itself, including the external communication and information delivery, are the central topics.

The first two sub-questions, and the answering of it, create the basis for the last sub-question: *"What could make the future of the sub-district of Jempang more sustainable, regarding the power position of citizens and palm oil companies, including the role of local governance?"*. The combination of the results that the two former sub-questions provide, create possibilities in order to contribute to the discussion about a more sustainable future in the research area based on practice and theory. Chapter Eight contains possible sustainable solutions for practices that result in environmental or social problems in the sub-district of Jempang. The combination between the collected and analysed data of the former sub-questions will provide us with recommendations for actors and policy makers on local level. Moreover, I will connect the results to the mental models of Dubbink. This part can be seen in

the outer border of figure 3 on page 15: the circle is symbolising the (different forms of) relationships between the tree main actors on meso level. Since the preceding sub-questions and related theories have a focus on micro level, the aim is to connect the foregoing analysis with a theory which approaches a specific context on higher level. The use of this theory will produce different recommendations for a sustainable future of the research area, because it discusses the interaction between the state, palm oil companies and villagers on system level. In other words, it deals with the more deep-rooted problems and its solutions of the political and economic system. Consequently, this brings us to the end of the empirical elaboration of the theoretical framework that created more clarity of the research design and an insight in the necessary steps to use the research data for the sub-questions.

3. RESEARCH METHODS AND TECHNIQUES

An essential element of conducting research is to choose the suitable research methodology and methods to gather the necessary data, in order to find answers to the research questions and the corresponding sub-questions as presented in Chapter One. In this chapter the research methods and techniques of this research, which has explorative, descriptive and explanatory characteristics, will be discussed. The related reliability, validity and the limitations of the data collection are indispensable themes of the methodological discussion which will end with the philosophical embeddedness of this study. Almost all choices in the research process (i.e. the research location, the research instrument, the data collection and part of the data analysis) were made in cooperation with my co-student Zarah Glaap, with whom I spent four months in East Kalimantan, from April until July 2010. Alternating Samarinda and two villages in Jempang sub-district, Zarah Glaap and I spent four periods in the field; one introduction period to get a first impression of the research area and to make the first contacts with the support of YK-RASI; two intensive periods of interviewing households in the two research villages; and a closing period of completing information (with a final expedition to observe the oil palm plantations in the research area) and thanking the respondents for their cooperation. During the last three fieldwork periods we were accompanied by our two assistants/ translators. During the several periods in Samarinda, we worked on our research instrument, conducted some additional interviews with experts, and evaluated and planned the research process. In Samarinda, YK-RASI was able to provide us with additional information and supported us when needed. Furthermore, we processed the empirical data into a statistical programme and briefly analysed our data in order to come up with preliminary research results which were presented at the office of YK-RASI by the end of July 2010. This chapter starts with an introduction of the research location, followed by basic information on the research villages and the justification of the particular selection.

3.1. A PASSAGE TO THE RESEARCH LOCATION

The sub-district of Jempang is situated in the middle Mahakam area and is one of Kalimantan's largest wetland areas; a natural floodplain encompassing 8.100 km² with extensive peat, freshwater swamps and swamp forests. The area comprises almost 40 large and smaller lakes. The major lakes are Lake Jempang (about 15,000 ha), Lake Melintang (11,000 ha) and Lake Semayang (13,000 ha). It forms an important water catchment and control system for the natural regulation of this river, and it is thus functioning as a retarding basin for flood prevention in river and lakes. Further, it is an important waterway for the transportation of people and goods (Suryadiputra, 2001). Due to alternating water levels, the size of the lakes' water surface ranges from zero in extremely dry years to more than 60,000 ha. During the rainy season the water surface of Jempang Lake expands with 30 percent, by contrast, during the dry season the size is almost 40 percent of its normal size. The lowland forest is situated on relatively higher ground directly adjacent to the swamps. The swamp forests regulate the water flow to these lower wetlands, in this way they are protecting peat swamps from drying out (Budiono, 2009). As one of the largest freshwater systems, the middle Mahakam area (MMA) has a high biodiversity potential. Up to now, no official protection status has been given to the area. According to nature conservationists and

biodiversity specialists, the area is of prime ecological value due to its unique features, such as shallow lakes, freshwater swamps and mangrove forests, and the existence of rare and endangered species, including monkeys and reptiles (Global Nature Fund, 2007). The lakes itself contain a great fish population and a high diversity of water species, including endangered mammals, such as the freshwater Irrawaddy dolphin (Sumaryono, Kreb and Budiono, 2005). A consequence of the species richness in the water, the MMA has a high socio-economic value for the fishing industry and the local communities. With an annual catch of 25.000 to 35.000 metric tons since 1970, the MMA has an economic importance. Fishing villages, with their floating houses and houses raised on stilts, are marked out by their specific wetland and freshwater fishing culture. Communities surrounding the lakes have a main livelihood as fishermen, whereas in other areas they mainly subsist on farming. This is due to differences in landscape of the areas surrounding the lakes (Sumaryono, 2005).

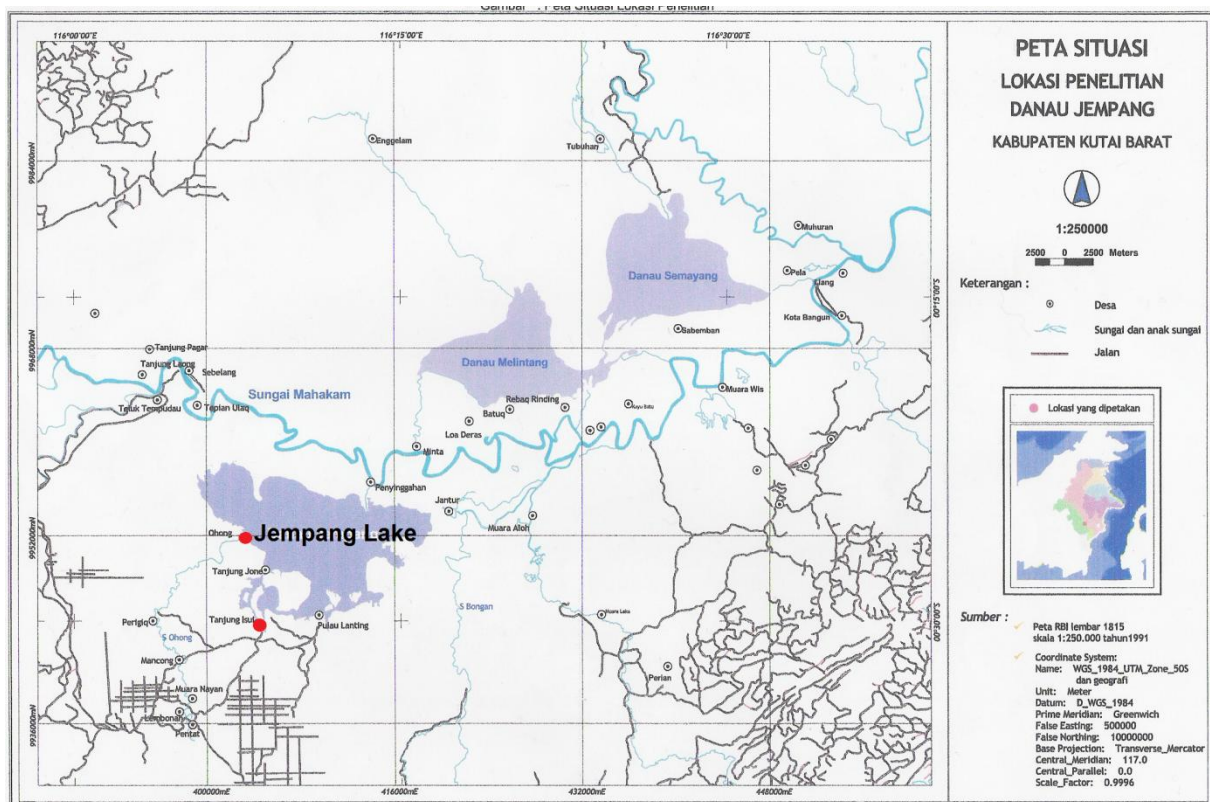


Figure 28. Map of the middle Mahakam lakes²

Not only the lakes, but also the surrounding environment has an important economic value, which attracts national and international companies that are exploiting the region's natural resources with government support. Especially the economic activities as logging, open coal mining and the establishment of oil palm plantations on a large scale are dominating the area. Up to the present, research ascertained a loss of 90% of the original peat and freshwater swamp forest in the area (Budiono, 2009). The most obvious environmental events, partly caused by these activities, are the large-scale forest fires of 1982-1983 and 1997-1998. During these fires, an estimated 3.2 and 5.2 million hectares of forest went up in smoke (Hoffman et al. 1999). Yet, regeneration of accidentally burnt forest that has not been conversed showed a regeneration of 60-70%, including original tree species, which is a good indication for reforestation potential. Both burns were related to the El Nino-Southern

Oscillation (ENSO) events. In the past, fires have been consistently blamed on the activities of small farmers (as an agricultural tool for shifting cultivation). Blaming the poor for causing environmental problems is a general response from elites and policymakers in Indonesia (Nooteboom & de Jong, 2010). A typical example of such a response is the speech of the minister of Agriculture during the Second Roundtable Sustainable Palm Oil (Jakarta, October 5th, 2004), in which he stated that oil palm plantation development should be seen as a way to reclaim the forest. Moreover, he considered oil palm plantations much more environmentally friendly than the slash-and-burn techniques of shifting cultivation (de Bruin, 2004). Yet, satellite imagery made clear - at the time of the burning - that the fires tended to occur in and around plantation areas (Colfer, 2002). There has been a continual process of conversion, which is particularly notable in the areas that burned, from humid tropical rain forest to industrial timber, oil palm plantations or transmigration locations. Whereas even 20 years ago East Kalimantan was primarily humid tropical rain forest, now only small areas of that habitat remain, which decreased the humidity, in comparison with the previous ground cover, significantly (Colfer & Resosudarmo, 2002). In 2009, the WWF (World Wildlife Fund) estimated that 66% of the East Kalimantan rainforest disappeared during the previous 25 years, 50% of that amount was cut in the last decade (WWF, 2009). Even more problematic are the conflicts with local communities, like the disturbing accusations from villagers in the MMA, at which oil palm plantation owners had purposely burned their lands by means of acquiring land, because people had refused to sell their land to the company (Harwell, 2000). On the other hand, companies generally prefer to use forested lands and peatlands rather than cleared areas to avoid potential tenure conflicts. Once key leaders in a village can be convinced to give up ownership of a forest area and accept the concomitant financial compensation, companies can lay strong claims to the land, in order to convert and exploit the land (Sheil et al., 2009).

3.2. THE RESEARCH VILLAGES

In the MMA, Jempang Lake is the lake with the highest biodiversity, but also concerns the lake that is most affected by environmental problems². Water measurements in Melintang Lake show that this lake is at least as strongly affected by dissolved oxygen as Jempang Lake. However, Jempang Lake is likely to be more polluted compared to Melintang Lake³ and is facing the biggest problems related to high sedimentation rates and extreme fluctuations in water level. Additionally, the location of the oil palm plantations in the MMA is situated nearby Jempang Lake. For these reasons, Jempang Lake formed the basis in selecting the research locations. The degrading environment in and around Jempang Lake affects fishing communities as well as communities that depend on (small scale) agriculture (Budiono, 2009). Therefore, Zarah Glaap and I wanted to select a village that mainly consists of fishermen and a village that consists of communities that mainly depend on agriculture or another source of living than fishing to provide in a daily income. This way, we could give a broad view on what is going in the region. The decision to conduct research in Tanjung Isuy was easily made; it is the capital of the sub-district of Jempang and households are mainly dependent on agriculture activities. Tanjung Isuy is the oldest village in this sub-district and

² YK-RASI, 9 April 2010 (personal communication).

³ De Jong, 12 April 2010 (personal communication).

has a total population of 1989 people, spread out over 506 households. All households in Tanjung Isuy have access to relatively safe and clean drinking water, supposing that groundwater, PDAM (*Perusahaan Daerah Air Minum* - public water utility) and bottled water are safe water sources. A majority in Tanjung Isuy has access to electricity provided by the state (PLN, *Perusahaan Listrik Negara*)⁴; other households have their own generator, so they have access to electricity in times of demand during the day. The village is located at the South West coast of Jempang Lake, most houses are located more ‘uphill’ and connected to concrete and dirt roads. There is one asphalt road from the centre of the village – a village square surrounded by governmental and public buildings – leading to the end of the village where the secondary forest, rubber plantations, and oil palm plantation turn up. A smaller population is living at the coast, nearby the small harbour; in wooden (long)houses built on stilts (partly above the water surface). A wooden bridge connects *kampung* Bugis, a neighbourhood which could be considered as a less developed area. About two kilometres outside the village, via a muddy and later on a concrete road, a small camp has been established by palm oil company PT LONSUM for plantation workers. Tanjung Isuy experienced a rapid population growth in the period after 1996 when the first palm oil company PT LONSUM established plantations. Daily workers were needed to clear the land and plant the oil palms. Nowadays the population is decreasing; the intensive labour period is over, and a lot of villagers who temporarily worked on the plantations went back to their places of origin⁵.



Figure 29. Aerial photograph of Tanjung Isuy and hinterland⁶

Regarding the choice for a fishing community, we chose the village of Muara Ohong. Muara Ohong is a small fishing village situated on both sides of the Ohong River, at the western end of Jempang Lake. During high water, the whole village is surrounded by water

⁴ PLN provides in electricity from 6 p.m. until 7 a.m. (noon on Sundays), civil servants get PLN for free.

⁵ Village headman Tanjung Isuy, 7 May 2010.

⁶ YK-RASI

and the Ohong River turns into a lake (an extension of Jempang Lake). It has a much smaller population than Tanjung Isuy: 788 individuals scattered over 223 households. Any form of public water utility is absent in the village, households are buying their drinking water in Tanjung Jone, a village located about six kilometres from Muara Ohong, and a few households are drinking the water from the Ohong River; they simply cannot afford buying drinking water⁷. There is no PLN available in Muara Ohong and households have to use generators, which they share with other households. Entering Muara Ohong from the confluence zone of Jempang Lake - during the research period we experienced high water and floods – you will find a whole floating village with large wooden houses and mosques built on stilts. In the centre of the village, the relatively proper houses and the village facilities are to be found. The houses are located at both sides of the river connected to wooden roads (also built on stilts); there is no bridge between these two narrow and not always stable roads. In the direction of Jempang Lake, where the wooden roads ends, villagers live in floating houses (rafts) and without any facilities; these people are mostly (temporary) migrants or outlaws. The village is said to be founded more or less 100 years ago by people from the south of Kalimantan; five generations have inhabited Muara Ohong⁸. After the settlement, people fished for subsistence purposes only. Commercial fishing arose when the area opened up in the early 1970s, to produce fish for the growing urban markets of Kalimantan and dried fish for export to Java (Nooteboom & de Jong, 2010). During our first visit to Muara Ohong, the village head told us about plans for the opening of a new oil palm plantation, which will be covering the area of both research villages. This information makes the selection of Muara Ohong and Tanjung Isuy all the more interesting.



Figure 30. Aerial photograph of Muara Ohong⁹

⁷ Resp. 7, 9 May 2010.

⁸ Village headman Muara Ohong, 9 May 2010.

⁹ YK-RASI

3.3. DATA COLLECTION AND ANALYSES¹⁰

During the development of the research instrument, my co-student and I were both determined to combine quantitative and qualitative research methods, because it creates a significant added value for the data collection and research outcomes in general. Quantitative methods, in the form of surveys and questionnaires, are useful to give an overview of main characteristics of a certain population; information that could make generalisations of practices in a specific field. On the other hand, qualitative methods, in the form of semi-structured and in-depth interviews, give more in-depth information, details, and explanations concerning a certain research topic and practices in the field (Verschuren & Doorewaard, 2007). To give a fruitful exploration and description of the complex developments in the MMA, by means of empirical data, in order to answer the research question which is supported by the developed theoretical framework, a combination of these two different research methods was required. Therefore, a semi-structured interview form (SSIF) seemed to be a perfect research instrument. The SSIF is a variant of a questionnaire, which contains an interview list with categorical questions as well as more open-ended questions. An advantage of the open questions in the SSIF is, especially for this complex research with sensitive topics, that it offered respondents the opportunity to tell their story, without suggestive answer categories. Based on the theoretical framework in this research and the theories that Zarah Glaap uses in her research, we drew up the semi-structured interview form¹¹. The SSIF was designed to gather an overall view of the socio-economical, political, and environmental situation of the population in the sub-district of Jempang. YK-RASI and our supervisors of the Radboud University Nijmegen gave us the final feedback related to the content and formulations of the SSIF. YK-RASI and our two assistants were responsible for the translation of our SSIF from English to the Indonesian language. After the trial period during the first days of our field research, the last adaptations were made in consultation with our assistants. The SSIF used households, and to a lesser extent individuals, of Tanjung Isuy and Muara Ohong as the empirical unit of measurement. The concept of household is based on arrangements made by persons, be it individually or in groups, for providing themselves in their essential needs for living (UNECA/UNESCO 1974 in de Jong 2000). One household normally inhabits one house in the villages of Tanjung Isuy and Muara Ohong, although exceptions were sometimes found. The translation of the used theories into the SSIF required elements that are covering individual perceptions and visions, the individual constitutes another empirical unit of measurement in this study. Eventually the SSIF contained the following broad topics: basic household information, economic activities of the household, perceptions of the environment, political developments and governmental regulation, social relationships, values and discourses. The conduction of one SSIF took between 60 and 90 minutes on average. In total, we interviewed 84 households in Tanjung Isuy (51) and Muara Ohong (33); the SSIF covers respectively 10 percent and 15 percent of the household population in these villages and is therefore a scientific permissible percentage to make generalisations about the village population¹². Households were selected by how long the

¹⁰ Paragraph 3.3 'Data collection and analyses' is partly written in co-operation with Zarah Glaap.

¹¹ See Annex I for the English version of the SSIF and Annex II for the Indonesian version.

¹² According to our supervisor in the field, ten percent of the research population per village was needed to make generalisations about the relative population.

household or a household member in the household inhabited the relevant village. For the empirical data concerning the environmental changes in and around Jempang Lake, it was necessary that the respondents should be able to compare current situations to situations more or less 20 years ago; this information could give us an overview of the environmental developments and trends in the area. Furthermore, 20 years ago, the political context was extremely different because Indonesia was then governed by the Suharto regime. Additionally, at that time there were no palm oil companies active in the research area.

Finally, the SSIF brought quantitative and qualitative data. Quantitative data was processed into a SPSS statistics file. Qualitative data, the more in-depth information obtained through respondents in Tanjung Isuy and Muara Ohong as well as the information obtained through representatives of relevant institutions, was usually talked over with the translators and written down in Microsoft Word, most of the time this was done on the same day the interview took place. The qualitative data gathered by means of the SSIF was coded afterwards and added to the SPSS file. By means of the SPSS statistics programme, descriptive analyses were made, resulting in utterances about the people of Tanjung Isuy and Muara Ohong. Qualitative data was categorised by topics and afterwards compared and analysed in order to make this data useable for further integration in this thesis.

Beyond the qualitative data of the SSIF, Zarah Glaap and I arranged several in-depth interviews with both the village headmen of Tanjung Isuy and Muara Ohong, the former village headman of Tanjung Isuy (since the current village headman of Tanjung Isuy was only in position for one month at the time we arrived in this village), the *Camat* (head of sub-district) of Jempang, a governmental official of the Forestry Department at Provincial level and the chairman of the Indonesian Oil Palm Association (GAPKI). All the interviews were recorded and during these interviews, we used more or less the same topic list (see annex II) which made it possible to compare the answers and vision on certain social, political and environmental topics. Furthermore, we attended a meeting in Tanjung Isuy initiated by the central government from Jakarta about the future developments of Jempang sub-district and the MMA in general, a few relatively important citizens attended the meeting which was led by the research and policy team of the central government.

The fieldwork period produced a huge amount of information, nonetheless literature stays a requisite. Literature provides background information; it shapes first impressions, but also later observations. Naturally, the literature study started in the course of the preparatory period of the master thesis as well as during and after the fieldwork period. General literature and data of Indonesia, East Kalimantan, and the MMA, as well as more specific literature concerning the state and changes of the environment, socio-economic developments, the palm oil sector, the political decentralisation, reformation and the impact on local governance was accessed, read and analysed intensively.

3.4. RELIABILITY, VALIDITY AND LIMITATIONS

Reliability and validity are of great value in research. Reliability refers to the requirement that results are not a 'lucky shot' and free of coincidental errors. Validity on the other hand refers to the trustworthiness and accuracy of research instruments, data and findings (Bernard, 2002). Naturally, to guarantee the reliability of the research data, we decided to cover at least ten percent of the household population of both research villages. During the selection of the

households we took into account the socio-economic status and geographical position of the household, in order to get a broad and mixed view of the research population. To guarantee the validity, we have used the so-called triangulation of different research methods and techniques which produces more reliable data and outcomes. Moreover, during the research period we had regular reflection moments with YK-RASI and our assistants concerning the used research methods, practices in the field and evaluation in general. Furthermore, we contacted and informed our two supervisors in the Netherlands on a regular basis. Still, it is important to realise that scientific knowledge is just a particular form of constructed knowledge, designed to serve particular purposes. In general, researchers are after generalisable and objective conclusions as the outcome of our research. On the other hand, we have to keep in mind that there is in fact no one truth or ‘one true way’ of seeing things. At best, our outcomes will be plausible, or even convincing, ways of seeing and analysing the researched reality (Crotty, 1998). For that reason, it is crucial in this research to understand that some empirical data concerning the perception of the environmental and the mentioned causes and consequences of particular ecological changes, does not always necessarily match with the ‘reality’, i.e., the ongoing physical changes. Notwithstanding these limitations, such local accounts are important as they reflect perceptions of environmental degradation and express indigenous interpretations of and concerns about the environment. Their experience of, dependency on, and daily interaction with the local environment makes them ecological experts able to produce detailed accounts of environmental changes (Scoones and Thompson, 1994).

Nevertheless, it is important to be critical towards your own research. In this research, we can reveal some shortcomings as well. With regard to the use of the SSIF, several issues can be put forward that influence the reliability and validity of results based on the SSIF (‘t Hart et al., 1998). First, the selection of respondents as discussed in the former paragraph implicates that some households, because of the requirement that a household member should inhabit the research area for more or less 20 years, are excluded systematically. In this way, research results are this way not valid for the total population of Tanjung Isuy and Muara Ohong. The second pitfall relates to questions. Reliability of the research instrument increases when it contains several items in reference to the same object. Besides, the accuracy with which questions are asked influences reliability as well. Since time is always a constraint, questions had to be shortened. Although we tried to formulate questions as precise and understandable as possible, some questions were really difficult for respondents to understand. Especially in Muara Ohong, where most people only finished primary school, it was sometimes hard to obtain answers. This had its impact on the validity; several times I have caught my translator in asking suggestive questions, to make it more understandable for the respondent. According to my opinion, this is also a cultural difference; many people of our research population seemed to have difficulties with the answering of open questions in general. This observation brings us to another limitation of this research: language. Although Zarah and I followed *bahasa Indonesia* classes in Yogyakarta for two weeks before we went to East Kalimantan, both of us were not able to do the interviews by ourselves and translators were needed which could lead to – besides the already mentioned pitfalls – invisible shortcomings. Lastly, the research topics were quite sensitive in this research field and it is not hard to imagine that for some people we were unpleasant guests. Some household

members and political related respondents were also hiding information or skipping certain topics during the interview. Reasons could be found in fear or involvement in a specific activity.

3.5. PHILOSOPHY OF SCIENCE

Choices and justifications for particular uses of methodology and methods reach into assumptions about the reality that the researcher brings to his or her work. Moreover, it also reaches into the understanding of what human knowledge exactly is. What does knowledge entail and what status can we ascribe to knowledge? These questions are epistemological questions and ask the researcher to think about his or her theoretical perspective. Epistemology is concerned with the meaning and the nature of knowledge. How do we know what we know and what does this mean? Epistemology is the theory or the philosophical grounding of knowledge that informs theoretical perspectives and thereby methodologies as well. Theoretical perspectives are philosophical stances that inform methodologies, provide a context for the research process and ground its logic and criteria. A theoretical perspective is a way of looking at the world and making sense of the world, how we know what we know (Crotty, 1998).

By analysing the epistemological background of the research question, the used theoretical framework and chosen research methods in this research, it becomes clear that this combination can be situated in the middle of the epistemological spectrum: constructionism. On one side of the spectrum there is objectivism. It holds that meaningful reality exists, whether anyone is aware of it or not. Objects have meanings in themselves; they carry intrinsic meanings. For this reason, the objective truth can be discovered if we study objects in a right way. Subjectivism can be found on the other side of the spectrum and holds that subjects project meanings in objects. It is the researcher who gives meaning to object(s) of investigation. The object as such does not contribute to generation of meaning. In between objectivism and subjectivism, constructionism can be found. According to constructionists, meaning is constructed, not discovered. Meaning comes out of the interplay between object and subject, or it is the subject who constructs meaning from the object when they interact. This way, constructionism does not hold that there is an objective truth that awaits us to discover it (Crotty, 1998). Personally, I believe that there is no objective truth when it comes to the social reality. Especially when it comes to social and political sciences, I think that no 'true' human interpretation exists (without saying that there cannot be a truth). What we see as objective knowledge is generally an (unconscious) result of perspective. Indeed, scientific knowledge is just a particular form of constructed knowledge designed to serve particular purposes. At best, our outcomes will be plausible, or even convincing, ways of seeing and analysing the researched reality. Debates and discussions about scientific topics and the exchange of knowledge only improve and increase the knowledge of people which can be used for society as a whole.

Epistemology is embedded in theoretical perspectives. The choice of theories and approaches and the use of concepts in this research are embedded in critical theory. Especially the logic of fields, and to a lesser extent legal pluralism and the mental models, are used as helpful grips in seeing and understanding phenomenon and certainly not as 'the true way' of seeing things. Critical theory is a theoretical perspective strongly informed by social

constructionism. In both schools, Karl Marx's thoughts (1818-1883) play a significant role. Marx fused philosophy, history and economics in his attempt to solve societal questions about inequalities. In doing so, his focus was on real-life experiences of society, not on mere abstractions. Critical inquiry reads and understands social situations in terms of conflict and oppression, it challenges the status-quo and it seeks to bring about change. The critical reflection on our reality and society considered the way of production as the most dominant factor that is influencing the socio-cultural, political and economic context: "dominant material force in society is at the same time its dominant intellectual force" (Crotty, 1998, p. 121). Especially the negative consequences of the capitalistic way of production, like socio-economical inequality and the alienation of individuals from society and its surrounding environment should be scientifically revealed, in order to change it to a better society. Moreover, critical inquiry also analysed the existing power relations which create or maintain social inequalities or unjust and problematic activities (Crotty, 1998)

Theoretical and epistemological perspectives are said to lay behind chosen methodologies in research, especially the quantitative and qualitative research methods were used to set against each other as polar opposites. This is actually grounded in the epistemological distinction between objectivist (positivist) research, on the one hand, and constructionist or subjectivist research, on the other (Crotty, 1998). There is an increasing attention focused on mixing qualitative and quantitative methods in recent years (Kanbur & Shaffer, 2007). In spite of the different epistemological background of these two methods should not be seen as problematic. Mixing quantitative data with qualitative data might even add value in understanding social processes. To be honest, the slow development of mixing quantitative with qualitative methods in social science surprised me a lot. It appears that the theoretical perspective and the chosen research methods of each specific field of social science are too much 'locked up' in their own dominant discourses and related theoretical and epistemological perspectives. That is why science as an institute, an educational centre that (re)produces information and knowledge, has some difficulties to be flexible and dynamic. Concerning the quantitative and qualitative discussion, I think we should rather skip such a discussion and concentrate on how to collect and produce the most reliable, valid and useful knowledge. In fact, any theoretical perspective can make use of any methodology, as long as it suits the research (Crotty, 1998). For this reason, in this thesis I have used a mix of research methods like the questionnaire with categorical questions and open-ended questions (the SSIF), semi-structured and expert interviews, and a literature study to deliver proper and holistic scientific results.

4. THE DEVELOPMENT OF THE INDONESIAN GOVERNANCE

A literature study of relevant scientific documentation is an essential part of research in general. In this study it does not only create a basis for more understanding of the research context but it also provides essential information to answer the research questions. Naturally, it will give important additional information, but it could also support the empirical results of the collected data. Furthermore, the description of historical developments and the current context in Indonesia, on a national and local level, makes it possible to connect the empirical results from a specific research location with general developments and trends on a higher level. It could also provide prescriptive knowledge; possible directions on how to change a certain situation. This chapter, which will create the context of economic, social and political developments in Indonesia, shall firstly discuss the socio-political and economic developments and national governance during the Suharto era between 1967 and 1998. Secondly, it will outline the development of the decentralisation and democratisation process after 1998 in Indonesia, focussing on governmental institutions and governance of natural resources. Thirdly, a description of these processes on local level and the relation with palm oil companies will be given. This all will end with a summary and concluding comments.

4.1. INDONESIA DURING THE NEW ORDER

The first president of Indonesia in 1945, Sukarno, succeeded to build a nation state and maintained national unity by carefully balancing the largest social powers at that time – the army, communist, nationalist and Muslim movement – within government. However, in the end of his era in 1966 Indonesia was in an economic miserable situation. The task of the next president Suharto in 1967 was to build the nation's economy; he named his rule the New Order, as opposed to Sukarno's preceding rule, henceforth called the Old Order. Suharto chose to control all other pillars of power by admitting army officials in parliament and expanding military influence into all aspects of society (Bakker, 2009, p. 65). The goal of the chosen strategy was to keep the nation together. The New Order emphasized political stability and the boosting of badly needed economic development. A strong government was therefore necessary which was accomplished by consolidating power in the executive position; centered in the president's hand, and developing a strong and loyal bureaucracy to implement executive decisions, and systematically paralyzing potential state and societal opponents. This strategy effectively calmed political strife and promoted several decades of economic growth, but with a politically weak society controlled by a highly centralistic and militaristic regime (Colfer & Resosudarmo, 2002, p. 39). A consequence of this centralised government is that most law and policy has taken the form of ministerial decrees rather than laws approved by parliament. Authority and the granting of exceptions have become highly personalized, so that demands and request have been channelled through patron-client linkages rather than through representative institutions. Despite repression, many local and national actors continued to press for the recognition of alternative practices, viewpoints, and paradigms to pay more attention to indigenous rights and environmental issues (Lindayati, 1999).

For a nation that has a large rural population and fertile land, agriculture was the

priority of the first plans (1968-1983) of development under Suharto, with a special focus on rice production. This emphasis made it possible to allocate scarce funds and forces and to achieve food self-sufficiency by 1984. During this period national economic development was characterised by rural and agricultural development that not only produced self-sufficiency in food but also boosted millions of people from below the poverty line. In the forestry sector, emphasis was given to log-processing industries. The forest sector grew into a close-knit community around the president and was then closely linked with money politics to strengthen the grip of the power elite on the conglomerates and political parties; it became a closed sector full of secrecy¹³ (Colfer & Resosudarmo, 2002). The Basic Forestry Law (BFL, UU 5/1967) gave the state legal authority to plan and regulate all forest tenure and to use arrangements in its jurisdiction. At about the same time as the BFL, other important laws were promulgated (related to mining, foreign investment, domestic investment, forest exploitation and management) that created the framework for the systematic economic exploitation of Indonesia's natural resources by large companies (Colfer & Resosudarmo, 2002, pp. 20-33). For most rural people, the central controlled process of resource exploitation left them bearing the environmental consequences without profiting from the financial advantages (Barr, Dermawan, Purnomo and Komarudin, 2009). The lack of certainty in the law, combined with the lack of a legal structure clearly linking the forest resource to its users, has created a free-for-all in which forest management has become the responsibility of no one (Seve, 1999). The different state departments namely tended to regard forest communities as a threat (destroyers of the forest resource caused by shifting cultivation). Besides, their shifting cultivation method was deemed economically unproductive and ecologically destructive. This attitude from the government relating to forest management characterises the first period of forestry policy (late 1960s to mid-1980s). External events such as increasing and more widespread conflicts between local people and logging companies and an increasing number of environment- and human rights-oriented NGOs ushered gradually the second period (Colfer & Resosudarmo, 2002, 36-57).

In the second period of development, from 1984-1998, the focus shifted from rural agriculture to industry. The Indonesian economic development shifted to urban and mostly large-scale industrial development that produced high-cost products protected behind a high tariff wall. Especially economic actors that were close to the ruling elite could flourish and grow; these business conglomerates were dominating the national economy (Colfer & Resosudarmo, 2002, 394-403). At the same period, there was a gradual call for change in the government paradigm of economic exploitation of the forest and the necessity to pay more attention to issues of community ownership, participation, sustainable forest management, human rights, and the rampant corruption. This process really becomes noticeable from the early 1990s, with various legal and regulatory texts aiming to direct and facilitate the participation of local communities. The mid-1990s also saw a new move toward decentralisation, as the forest department began to realize it was lacking both knowledge and experience in community development of forested areas. New players (NGOs, academics, international agencies) entered the policy community and facilitated the development of an

¹³ Article 33 of the Indonesian Constitution of 1945, a frequently quoted passage, declared the right and responsibility of the state to control natural resources for the general good of the Indonesian people and has been generally used to justify most New Order forest management practices.

alternative policy discourse that challenged mainstream state beliefs. Nevertheless, without significant changes in the wider socio-political institutions, the fundamental policy network power structure remained unaltered. Lawmaking remained firmly top-down and local people were treated as objects (not subjects). The belief in the state as the sole legitimate resource developer and custodian, which was the case during the New Order, has been condemned as the root cause of many contemporary forest-related problems (e.g., deforestation, forest-related social conflicts), particularly outside Java and Bali (Colfer & Resosudarmo, 2002). It is remarkable to notice that the main policy strategy of the Forestry Ministry was to divide forested areas into concessions for various groups rather than how to develop viable forest institutions that would make sustainable forest development possible. This could be explained by the fact that forestry is a billion-dollar business with powerful interest groups involved, therefore it becomes extremely difficult to introduce environmental reform in the forest sector. However, the political and social reforms since 1998 could be seen as a possibility for a more sustainable resource management.

4.2. POLITICAL, ECONOMIC AND SOCIAL DEVELOPMENTS AFTER THE REFORMASI

The economic crisis of 1997 provided the opportunity for the growingly frustrated people to raise their voice. The crisis was initially dominated by monetary issues, but soon it grew into a more general crisis that changed into a political and social crisis. The national strife and widespread protests, whereby farmers reclaimed and reoccupied lands taken over by state and private companies associated with the New Order regime, was followed by resignation of Suharto as President of Indonesia in 1998 (Lucas and Warren, 2003). The third president of Indonesia, Habibie, promulgated the new decentralisation legislation in 1999. The national reform followed by the political decentralisation was a response to the huge gap between politics and society which was the result of the New Order regime. Decentralisation, in essence, means according to Colfer and Capistrano (2005) the

handing over of political, financial and administrative authority from central to local governments so that the government can facilitate and guarantee better public services for the people. The success depends upon the availability of proper institutions and qualified human resources in implementing all aspects of decentralisation, as well as other supporting factors, such as infrastructure, technology, information access, personnel and institutional capacity in planning, and – more importantly – the proper distribution of natural resource benefits. (p. 143)

With this in mind, we should consider the decentralisation process as rather complicated and unpredictable; there are many factors which could influence the success of such a political and social transformation, all the more with the historical and cultural background of Indonesia. Before a further look into the decentralisation process will be given, it is necessary to discuss some general information about the Indonesian governmental structure; it will create more understanding of the decentralisation and the related power shifts from national to local governmental institutions in the period after 1998. The hierarchal governmental structure of Indonesia consists of five essential layers, which can be seen in the figure below in the form of a top-down structure.

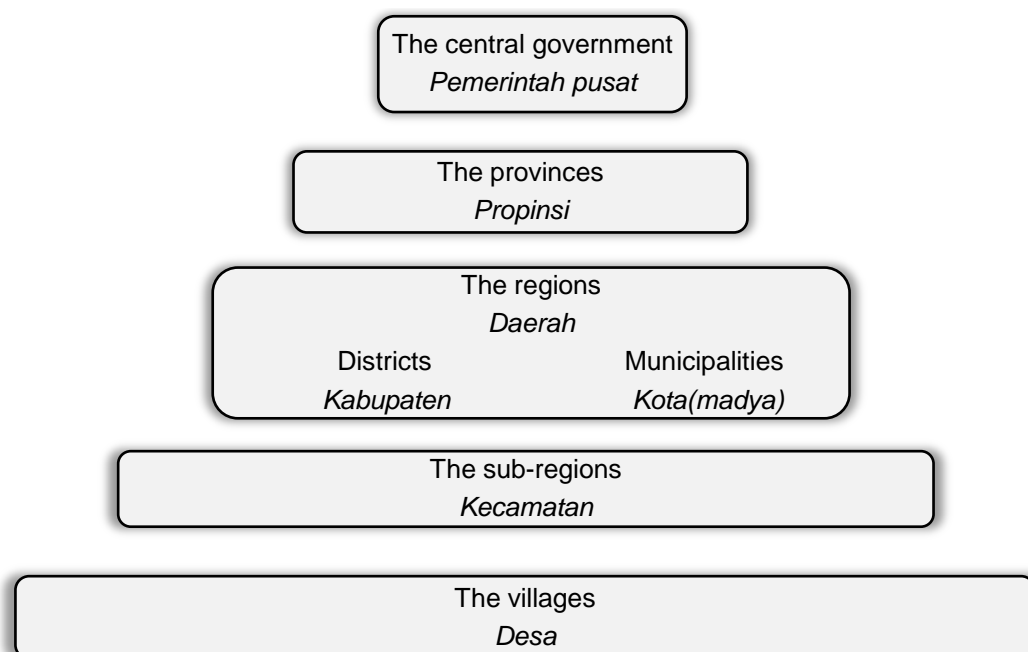


Figure 31. The governmental structure of Indonesia

The first layer consists of the central government: an amalgamate of parliament, senate, cabinet, president and the various ministries and head offices of non-ministerial government bodies. It is often referred to as ‘Jakarta’, the capital of Indonesia where all are located. The second layer, the province (*propinsi*), is headed by a governor (*gubernur*) and a provincial parliament. The third layer is the regional level (*daerah*) of government, consisting of districts (*kabupaten*) and municipalities (*kotamadya*). The former is headed by the head of the district (*bupati*) and the latter is headed by a mayor (*walikota*), each governmental body contains a regional parliament as well. These regional governmental bodies are equal in status but different in make-up; regional districts are located in rural areas, municipalities are mainly urban areas centred upon a major town. The fourth layer, the sub-region (*kecamatan*), is largely an administrative sub-division intended to improve the implementation of measures coming from higher authorities and is headed by sub-district officer (*camat*), it hardly plays a significant role. The fifth level consists of the villages (*desa*), therefore it is the governmental level with the closest public (societal) connection; situated on a local level, where governance meets people. The village government is headed by a village head (*kepala desa*) and village council (Bakker, 2009, p. 94).

It is tempting to draw a sharp line between Suharto’s New Order and the transitional government policies. However, decentralization initiatives have been ongoing for many years, but since Suharto’s fall the process has accelerated remarkably. The decentralisation process in the form of the regional autonomy laws (RAL) of 1999 and 2004 delegated considerable administrative authority to the regional level of government¹⁴. These laws created new models for revenue sharing, decentralised many functions (currently held by central government to the regency level), and fundamentally reformed the system of village-level government. The RAL practically bypasses the provincial level and devolves authority primarily to the district

¹⁴ The first set of regional autonomy laws (RAL) - Law 22/1999: regional governance, Law 25/1999: fiscal balance between the central government and regions - came into force in 2001.

level; the powers of the provinces are strictly limited. This is a remarkable division of authorities between the two levels; during the New Order, the regions were virtually completely controlled by the provinces. The central government retains a guiding role and supervises the regions, its role in the daily management of the regions decreased considerably¹⁵ (Bakker, 2009, pp. 100-102). Besides, regional governments received the authority to enact their own regulations without having to await approval from higher authorities, which means that the task of the central government is to guard against unacceptable regional legislation (Aspinall & Fealy, 2003, p. 69). The provinces have authority over affairs that are interregional in nature and exercises control over (spatial) planning and regional development; matters that affect more than one regency or town within the province¹⁶ (Colfer & Resosudarmo, 2002, p. 331).

The decentralisation process was also seen as an opportunity for a necessary democratisation in the political system of Indonesia. For more than 30 years, the structure of provincial and district administrations was determined by the central government, which affected institutional formation and bureaucratic behaviour across the regions, making it difficult for local governments to respond to and accommodate community needs and aspirations. Electoral reform was the answer to make local politics more democratic and community-focussed. Hence, the demand for the direct election of the governor, head of the region (*bupati* and *walikota*), and village head should reduce the gap between politics and society and make the elected leaders more responsible. A direct voting system should also reduce the influence of powerful elite politics and the related money politics; in case of bad governance people will think twice to vote for the same politician. The effect of the electoral reform partly succeeded. In general, local government leaders with a military background have failed to be re-elected, but people have become increasingly suspicious of the role of bribery in local politics, particularly in elections for local heads of government (province, district and village). There is a public perception that local governmental bodies are places where 'black' money is circulating without any legal instrument available to stop it. This is one of the reasons why the public trust in regional governments and legislatures has declined since the implementation of the regional autonomy laws. Because many regional governments have promulgated their own regulations, based largely on local interests or concerns, instead of national law or the broader public interests (Aspinall & Fealy, 2003, pp. 63-71). Even more important is that these developments also occur in the forestry and agriculture sector, which might have a huge impact on the environment and local communities.

An important point of critique for the first RAL of 2001 was the vague formulations of the fields and limits of the regions' new autonomy. The legal formulation was carried out rapidly and under transitional circumstances, resulting in incompleteness and imprecise formulation. Especially the different interpretations of the term decentralisation and misperceptions in identifying responsible actors in forest management created problems by the implementation of the RAL. Distribution of authority and roles has started conflicts

¹⁵ 'Jakarta' is responsible for national planning, the allocation of financial subsidies to the regions, economic institutions and public administration, human resource development, control of natural resource exploitation and conservation. Regional governments (districts and municipalities) will have authority in all fields except security and defence, foreign affairs, fiscal and monetary policy, the judicial system and religious affairs.

¹⁶ The authority of the provinces is limited to setting guidelines, for instance, forest inventory, mapping and forest boundaries.

among the parties concerned. Furthermore, problems have emerged because of a lack of transparency and accountability in managing and maintaining natural resources as a life-support system, rather than only as a source of economic growth. Furthermore, local governments were unprepared in terms of institutional and human resource development to manage natural resources (Colfer & Capistrano, 2005, pp. 141-151). An important aspect of decentralisation in the forestry sector is the issuance of small-scale forest concession licenses by the regional government, which permit the utilization of timber coming from land clearing. The regency leader (*Bupati* or *Walikota*) is authorized to grant forest utilization licenses over areas within his jurisdiction, a governor is able to grant licenses over areas that crosscut more than one regency, and the Ministry of Forestry can grant licenses over areas that crosscut more than one province (Colfer & Resosudarmo, 2002, p. 347). To understand the consequences of decentralising permits, it is necessary to explain the budgetary system of regional governmental.

Before the *reformasi*, the government budgeting was centrally arranged; most funding for regional development as provided by the central government was in the form of specific 'tied' grants. The only funds they could draw on freely were locally raised income, derived from local taxes and revenues from natural resources. However, it remained a small part of the regional budget (less than 20 percent), explained by the fact that the central government mainly collected and partly redistributed these local taxes. The new budgetary arrangements give local government far higher levels of income derived from many more resources (Aspinall & Fealy, 2003). For the sake of clarity, regions get their income from two main sources: the national state and regional revenues. The state provides a General Allocation Grant to each region, which consists of 25 percent of the national budget. This grant is based on a fixed sum that is increased by additional funding per region in the form of a Special Allocation Grant to be used for specific purposes. Regions exploiting natural resources do, however, receive a fixed percentage of this exploitation. Resource-rich regions are thus less dependent on government allocation than resource-poor ones (Bakker, 2009, p. 103). Especially the regions' share of forest-derived revenues changed enormously: 20 percent will now be retained by the central government, while 80 percent will be distributed to the other governmental layers¹⁷ (Colfer & Resosudarmo, 2002, p. 333). Despite the more fair division of local natural resource revenues, district governments did face problems, including the challenge of coping with urgent fiscal problems, caused by an increased range of devolved functions as well as the salaries of staff. Through this development, the already weak capacity of district governments to deliver services had been reduced after the decentralisation (McCarthy, 2001a).

The combination of changes concerning the issuance of small-scale forest concession licenses and budgetary decentralisation led to an uncontrolled number of licenses that tended to encourage forest degradation. Hence, in 2002, the government undid the measure - of issuance permits by regional layers - by a new regulation (No 34); in which the authority to issue licences for forest product utilization is now with the minister of forestry, technical recommendations from the head of the district are required. Since then, the situation became

¹⁷ Respectively, the province receives 16%, the producing region receives 32%, and the other 32% will be equally distributed among the other regional governments within the province. Previously, the percentages were rather different: 40% to national forestry development; 30% to province; 15% to regional government; and 15% to regional forestry development (Colfer & Resosudarmo, 2002, p. 333).

even worse. Disagreement between regions and central governments emerged and created debate among forestry stakeholders. In many areas, the issuance of permits for timber utilization and small-scale forest concessions by local authorities is still occurring. Local authorities perceive the forest as a generator of local revenues, including a short-term orientation (five years) that is related to terms of office of local government administrators (Colfer & Capistrano, 2005, pp. 141-151). The argument that local people benefit from the permits, which regional governments use, may only partially be true. Firstly, local people simply may not have capital to obtain these permits because the costs are too high. Moreover, the informal costs (usually in the form of corrupt facilitation payments) are making it even more expensive (Alqadrie et al., 2002). Secondly, local communities may not have adequate technical capacity to carry out logging operations. Therefore, in many cases, there are large-scale concessionaires or other capital providers playing a role as ‘partners’ behind these permits. These capital providers are using cooperatives and local communities to gain access to forest resources (McCarthy, 2000; Soetarto et al., 2001). Local communities may be paid for their cooperation, but most of the profits will accrue to the capital provider and other actors (McCarthy 2001b). Additionally, local communities, because of economic pressures, often transfer landownership to other parties to gain quick cash (Colfer & Capistrano, 2005, p. 148).

In guarded language, we could say that the decentralization enhanced the opportunities of existing district elites to use district regulations to extract resources and extend their businesses under the umbrella of district “legality”. Previously, personal relationships with elements of the central government were essential to get access to natural resources. Now it appears that a relationship with local elites is not only an advantage but also a necessity for obtaining such access. The position of local communities with regard to their share of forest benefits has not changed. They generally occupy a weak power position, in financial as well as in political terms. Local people who are involved in felling activities in small-scale permit areas – and even worse in illegal felling – still only work as labourers for low pay (Soetarto et al., 2001). Consequently, in almost every regency, there were various forms of disputes over land, commonly between local communities and logging companies or palm oil companies (Universitas Cenderawasih, 2002). Since the *reformasi*, local communities considering ethnicity and *adat* as legal sources legitimizing land reclaiming (Van Klinken, 2006). Bakker (2009), gives a clear description of what *adat* is:

Adat is more than ‘custom’ or ‘tradition’, but it is not ‘law’ in a strict sense. (...) [It] is a social system rather than a legal one; its focus is on individuals and their specific relations and in the second place on the rules that may or may not apply. It involves elements of politics and solution-seeking that are foreign to an objective application of law. (...) Adat is continually changing and developing with a speed and agility that could never be rivalled by a system of state law. Although it most certainly includes a normative aspect, it also encompasses the preferable, the possible and the advisable, and is open to negotiation. Compared to state law, this makes adat rather hard to understand and predict (pp. 68-69).

The concept of *adat* was introduced into new forestry legislation in 1999, therefore, much legislation pertaining to land or natural resources includes references to *adat* land claims or to

the rights of the local population in general. Nevertheless, it often lacks clarity and suffers from overlaps, resulting in departments contesting one another's authority, and it is hindered by poor or faulty implementation. In other words, official law does not provide a clear legal ground for a return of *adat* land or compensation. Unclear boundaries between *adat* and state land, made it more difficult to solve land conflicts, even more when claimed land is already covered by plantations or settlements by migrants (Tjondronegoro, 2003). Despite the insertion of *adat* into legislation, it does not empower local communities to solve conflicts about natural resources. "A literal interpretation of Law 41/1999 would leave one no choice but to conclude the virtual inexistence of *adat* communities in Indonesia" (Bakker, 2009, p. 117). In other words, despite the improved acknowledgement of traditional resource and land rights, there is a continuing struggle between central and local government which leaves local people without clear prospects. This high level of uncertainty is another strong driver of unsustainable resource use (Gönner, Cahyat, Haug, Limberg, 2007).

Luckily, there are also some positive developments that could give us hope for a successful decentralisation process in Indonesia. In 2004, a restructuring of the RAL and a more detailed definition of the authorities between the various governmental layers were considered as necessary¹⁸. These laws amended regional government autonomy by further defining regional authorities and increasing provincial government powers. The replacement of the new law clearly displays a slight form of recentralisation, which is in accordance with the view of the Ministry of Forestry. This institution showed strong resistance to the idea of surrendering its powers to the districts, arguing that they simply lacked the capacity to manage Indonesia's natural resources (Aspinall & Fealy, 2003). To solve the problems related to the regional budget and issuance of permits, the General Allocation Grant budget increased the provincial share of the local natural resource revenues and the provinces gain greater influence in the redistribution of allocation funds flowing back to the regions (Bakker, 2009, pp. 100-103). Most interestingly, regions were fiscally restrained to exploit natural resources¹⁹ (Brodjonegoro, 2004, p. 9). Despite positive changes in Indonesia's decentralisation policy, there is obviously a struggle between different governmental layers and its over-regulated governance, including overlapping authorities in different laws. But on the other hand, the situation also provides opportunities for regional governments, villages and companies. It namely becomes possible to refer to other authorities or laws in case initial ones prove to be uncooperative or unfruitful. Nevertheless, to present a holistic and expanded literature study concerning the decentralisation process in Indonesia it is essential to discuss the governance situation and related changes on village level, which will be done in the next paragraph.

4.3. LOCAL GOVERNANCE AND DEMOCRATISATION PROCESS ON A LOCAL LEVEL

The decentralisation process on village level has remained on the periphery of policy debate, nevertheless there is a process of democratisation noticeable in the RAL. The village level is

¹⁸ The fifth president of Indonesia, Megawati, replaced the RAL by Law 32/2004 (on regional government) and Law 33/2004 (on fiscal balance between the central government and the regions).

¹⁹ Regions with a negative fiscal balance will receive allocation fund as long as their negative balance does not exceed it. Once this happens, no allocation money is provided. In practice it means that resource rich provinces with considerable income will not receive allocation funds once their own income exceeds the basic sum. This measure clearly wants to restrict regional governments, because it makes it unattractive for regions to increase their revenues beyond a certain amount.

an essential layer for the whole decentralisation process and its integration could improve sustainable development on local level. Villagers ought to be major stakeholders in the outcome of natural resource management, because rural village areas cover most of Indonesia's natural land resources. There is always a risk of a close-knit concentration of power by local elites (senior bureaucrats, favoured businessmen, e.g.) typically excluding the poor. Concerns about the implementation of greater village democracy and influence over higher governmental levels might be abused or 'captured' by the local elite, which is based on historical developments: in the past, village leadership was sometimes controlled by corrupt or even criminal forces (Colfer & Resosudarmo, 2002, pp. 60-77). In practice it is not hard to imagine why local leaders could occupy such a powerful position, because for many villagers they represent the highest authorities in daily reality. For example, land management in rural areas is largely carried out by village heads and *adat* leaders. Village heads usually have received a rudimentary training in official land law for managing day-to-day affairs, but in practice it often balances out favouring *adat*. As a matter of fact, official control on local land management is largely absent (Bakker, 2009, p. 368).

The RAL introduced a renewal of village governments, by establishing a separation of powers at village level between the, new, village council (the Village Representative Board, BPD) on the one hand, and the reformed village executive government (consisting of a village head and his or her staff) on the other. These miniature parliaments consist of 5-13 members, who will be elected every five years. They have the authority to draft village regulations and the annual village budget, and if necessary, the right to monitor the village head. In exceptional cases it can even propose to the district government the removal from office of a village head. In other words, the village council has the potential to increase the villagers' influence on local politics and its policy. Their main function is to act as a pressure group on behalf of the villages and amplify the voice of villagers in relation to a district or sub-district government, or even a political party (Aspinall & Fealy, 2003, pp. 72-86). Another aspect of change is the increasing village autonomy related to budgetary issues. The village head and village council together decide upon village finances. The head of the district where the village is located provides a guideline for village finances, but this is no longer binding. The team of village head and village council has the authority to draw up village regulations that may not go against higher legislation. This is a considerable break with the previous system in which the village head was mainly supposed to carry out instructions from higher authorities (Bakker, 2009).

The village communities in Tanjung Isuy and Muara Ohong, if properly represented, should hold regency governments accountable for the problems in their region. Accountability, the cornerstone of good governance and a fundamental determinant of successful decentralisation, as pointed out by Bennett (2002), is not always among the highest priorities of Indonesia's policy. Participatory mechanisms of decision-making and a transparent and open-door process for receiving village community representatives with comments on developments in field could stimulate village driven accountability. Lack of increased community participation in local government has been identified as one of the main failures of decentralisation worldwide (Crook and Sverrisson, 1999). There should be the option of one or several villages coming together to convey their message. A problematic aspect is that, in many villages, there is no cooperative and there never has been. Few people

at the village level know how to create a cooperative, let alone know what a cooperative's function is supposed to be. A second problematic aspect is the sub-region governmental level; the head of this governmental body (*Camat*) cannot be elected and owes its existence to the approval of the *Bupati*. For villagers, it is the closest governmental layer after the village layer, and therefore considered as relative influential for local level (Colfer & Resosudarmo, 2002). It is important to realise that the state is an authority which is largely beyond the reach of rural communities. The state is given shape regionally by its representatives, and although they are not the state as such, these officials are the nearest that many among the regional populations will get to the power of the state (Bakker, 2009, p. 363). In the end, local officials are ultimately responsible for implementation of any laws. Legislation is important, but it is only one small part of the general policy process. The law is not a policy on its own: it becomes policy through implementation on a local level.



Figure 32. The governmental structure of Indonesia connected to the research location

In the figure above, I have connected the figure of the Indonesian governmental structure to the research context. For the reader, it could function as a hold for the local context and following chapters. Because of the decentralisation process, the district of Kutai Barat is a relatively young; it became an official *Kabupaten* in October 1999 (Gönner, Cahyat, Haug, Limberg, 2007). The newly formed district consists of 14 sub-districts, 223 villages and approximately 150,000 people. The number of civil servants working in the Kutai Barat district government in 2002 was 3650, approximately 2.5% of the total district population. Kutai Barat was and is characterised by limited physical infrastructure and industrial facilities, also, government offices in Kutai Barat have limited facilities and are poorly resourced. After the division, the provincial government expected that Kutai Barat would generate the least revenue in the area because it is the least developed and most isolated region in the Kutai area. Accordingly, the local government of Kutai Barat saw the decentralisation as an opportunity to improve self-driven development: they wanted to be fiscally independent. The *Bupati* was therefore keen to attract new investment to the region and to generate regional income from the district's natural resource base. Local governments strongly support oil palm expansion. In some cases, the strong support from higher-level local officials has been bought by palm oil companies. An example is the arrest of the Governor of East Kalimantan, Suwarna Abdul Fath, a PDIP (*Partai Demokrasi Indonesia Perjuangan* –

Indonesian Democratic Party of Struggle) politician who was accused by the national anti-corruption body in June 2006 of selling state land cheaply to be cleared for an oil palm plantation (Brown, 2009, p. 119). The most negative consequence of the corruption that has characterised the Indonesian bureaucracy is the adverse effects on rational decision-making concerning land use and natural resource management in general (Dudley, 2000). Apart from the existing illegal practices, a simple fact is that after the RAL, small-scale concession permits were mushrooming in East Kalimantan (McCarthy, 2001b)²⁰. Also inside the district and provincial government, the lobby activities to simplify and speed up the time-consuming procedure concerning the allocation of permits for oil palm estates increased. The extra revenue will certainly assist the local government, but it is hardly enough to compensate the environmental damage caused by uncontrolled logging and the establishment of oil palm monocultures (Casson, 2001). Surprised by the stunning rise of permit allocations by the districts, the provincial government seemed to be worried and issued a letter to prevent district governments from issuing any further permits, but most *Bupati* continued to allocate permits²¹. Some writers have suggested that the *Bupati* intend to show their reacquired power (Barr et al., 2001).

However, the district government also left some opportunities unused. Particularly in the natural sphere, the local government failed to establish or enforce stricter regulations for controlling the environmental performance of extractive businesses (Casson, 2001). Another unused opportunity is the possible improvement of the relation between government and people; the down-scaling of the Kutai district did not close the gap between the district government and the general public. According to Andrianto (2006), the general public receives little information on district government policies and programmes. Minimal awareness-building and a lack of transparency have meant there is no 'front door' for communities to participate during decision-making processes or at least to communicate their needs. On the contrary, regional autonomy had an impact on the staffing of (important) positions in the regional government. The strong interest in 'localising' the district government has made it easier for people originating from the district to hold office. Of the 108 officials in the district secretariat, technical agencies, boards and sub-district offices, more than 90% are indigenous to the area.

4.4. SUMMARY AND CONCLUDING COMMENTS

All layers of the Indonesian government are obviously struggling to get used to the new democratic and decentralised system. During the Suharto era, all the economic and political powers were centralised around the Suharto network. The environmental policy and management of natural resources only existed in the economic agenda. The specialisation in natural resources was priority number one; not only to increase the economic growth but also to stabilise the national food supply. The New Order's policy related to forest management was not able to regulate just access to land, nor did it have the enforcement capacity for sustainable forestry management; it was lacking both knowledge and experience in

²⁰ *Kabupaten Kutai Barat* has issued 223 permits by August 2000, by the end of December the number had almost tripled to 622 (McCarthy 2001b).

²¹ Moreover, the short duration of these permits (limited to one year) implies a very rapid rate of timber extraction or forest conversion; only in the year 2000, permits for 62,200 hectares were issued in Kutai Barat (Barr et al. 2001).

community development of forested areas. The political and social reforms since 1998 could be seen as a possibility for a more sustainable resource management. Firstly, the national government delegated considerable administrative and financial authority to the regional level of government; these laws created new models for revenue sharing and decentralised many functions. Secondly, it fundamentally reformed the system of village-level government by establishing a separation of powers at village level between the village council and village head. It also increased village autonomy related to budgetary issues and the authority to draw up village regulations. Still, there are problems regarding the community participation in local government, caused by opaque and closed mechanisms of decision-making. Since the RAL, the public trust in regional governments and legislatures has declined. The district governments faced financial problems, caused by an increased range of devolved functions as well as the salaries of staff. Therefore, many regional governments have promulgated their own regulations, based largely on local interests or concerns, instead of national law or the broader public interests. In this way, they could generate local revenues from natural resources, without sufficient transparency and accountability. Disagreement between regions and central governments has emerged and created debate among forestry stakeholders; local authorities had a short-term orientation (of five years) and were unprepared in terms of institutional, informational, and human resources. In other words, much confusion originated by the changing power positions and authorities between governmental bodies. Equally important were the incompleteness and imprecise formulations of the RAL, especially the different interpretations of decentralisation and misperceptions in identifying responsible actors in natural resource management created problems by the implementation. The combination of these developments led to uncontrolled growth of logging activities, the establishment of mines and oil palm plantations.

The decentralisation of powers towards the local governments created power struggles and made the power structures imbalanced. A crucial negative consequence of illegal activities and corruption that has characterised the Indonesian bureaucracy is the adverse effects on rational decision-making concerning land use and natural resource management in general. Therefore, the supervision of the judicial institute and its power to influence and control the activities of local governmental bodies plays an essential part to solve problematic social and environmental developments. Electoral reform was the answer to make Indonesia less corrupt, more democratic and community-focussed. In general, local government leaders with a military background have failed to be re-elected, but people have become increasingly suspicious of the role of bribery in local politics, particularly in elections for local heads of government (province, district and village). Furthermore, an unused opportunity of the state is the possible improvement of the relation between government and people; the down-scaling of the Kutai district did not close the gap between the district government and the general public. Communities generally occupy a weak power position, in financial as well as in political terms. Changes that were made by President Megawati, to define further regional authorities and increase provincial government powers, displays clearly a slight form of recentralisation: local governments should not be able and lacked the capacity to manage Indonesia's natural resources. In the end, local officials are ultimately responsible for implementation of any law; it becomes policy through implementation on local level. This is where a lot of improvement can and should be made.

5. ENVIRONMENTAL CHANGES IN KECAMATAN JEMPANG

With this broad, yet specific, contextual body of the former chapter in mind, a logical continuation is to take the step in the direction of the research location and the empirical data. This chapter deals with the first sub-question: “*What are the environmental changes in the sub-district of Jempang compared to twenty years ago and which actors are responsible for these environmental changes?*” It will outline the perceptions of the condition of the environment and the extent of change, according to the villagers who are living in the sub-district of Jempang. The outline is categorised by the following environmental topics: water and sedimentation, forest and plants, and aquatic species and its population. The discussion of these topics will also describe the causes and impact/ consequences of possible environmental changes. By answering this sub-question, it will contribute to the empirical translation of the theoretical framework. In short, the information in this chapter will fill in the green environmental circle, presented in the supportive figure of the integrated theoretical framework (page 15). The environmental core will be revealed at the beginning of the empirical chapters, therefore, it will give the reader a clear outline of the local vision towards their environmental situation and its changes. Besides, this information is essential to understand the strategies and power relations (a result of habitus, capital and rules) of villagers and oil palm plantations in this area. Before I will discuss the empirical data, it is necessary to start with a description - based on scientific literature - of the natural environment and the related vulnerabilities of Jempang Lake and its surroundings.

5.1. THE CLASH BETWEEN ECONOMIC AND ENVIRONMENTAL AGENDAS

The ecological consequences of the radical changes in the MMA are enormous. An extended research in Kutai Barat by CIFOR (Gönner, Cahyat, Haug, Limberg, 2007) mentioned explicitly the critical situation of the environment in *Kecamatan* Jempang. The large-scale forest conversion to oil palm and wood plantations, repeated forest fires and open pit coal mining have led to a severe decline in ecosystem quality. Unfortunately, a governmental plan to stabilise the environment in the area by the reforestation programme has been only partially successful. However, in many areas, a high percentage of the funds has been misused by project members and local counterparts. On the other hand, as a direct consequence of the current strong anti-illegal logging campaign and the stricter prosecution, most people have not dared to cut timber (even for local house construction) since early 2005 (Gönner et al., 2007). A result of the deforestation is the increasing sedimentation in several areas of the MMA that decreases the water capacity of the lakes and increases shallowness, which is most problematic in Jempang Lake. In combination with the forest conversion, which leads to a diminishing water absorption by the soil and thus a faster runoff, it leads to increasing annual water level fluctuations. The occurrence of floods (from 3 to 6 meters) and dry periods has become increasingly unpredictable, and floods tend to be higher and occur more frequent than in the past (De Jong & Nooteboom, 2008).

Besides hydrological changes, chemical changes are also taking place. Water quality is decreasing due to soil erosion and the runoff with waste from coal mines in the area (most prominently acid debris and coal residues from the open pits) and pollution from the large

palm oil plantations in the area (pesticides and fertilisers). All the economic activities in the area seem to use the rivers, lakes and swamps for waste disposal (Nooteboom & de Jong, 2010). Consequently, the lakes are becoming clogged with weeds (covering about 50%, up to 90% of the lake surface), reed grass and sediment. Naturally, these massive water weeds are problematic for the transportation on water. In other words, the lake ecology is weighed down by the eutrophication process that is causing the reduction of fish resources and is changing the MMA into swampy conditions (Budiono, 2009). Chemical analysts have proven the changes in water quality and these changes are described and acknowledged by observations of local people, including the fact that several valuable fish species have virtually disappeared since the opening of the coal pits in the 1990s. Not only the bad waste management of companies is affecting the fish population, but also overfishing, unsustainable fishing techniques (such as electro-fishing and the use of poison), the direct catch of protected and endangered species, and the entering of invasive species are affecting the quantity and quality of water species in a negative way. Furthermore, the increase of boat traffic in the MMA disturbs breeding bird populations and freshwater dolphins by the noise and fuel pollution (de Jong & Nooteboom, 2008; Sumaryono, Krieb and Budiono, 2005).

All in all, access to natural resources, such as forests, agricultural land and fishing grounds, is increasingly contested as economic and demographic growth puts an ever intense pressure on natural resources. Local populations compete among themselves and with outside actors - such as private companies and government bodies - over the use, control and protection of these valuable resources (Nooteboom & de Jong, 2010). As a result of the diminished community and private owned land some socio-economic problems have arisen, specifically it prevents the local community from performing their traditional occupations such as small-scale subsistence agriculture, animal hunting and forest product harvesting (Budiono, 2009). All those changes affect the availability of resources and the sustainability of resource use. Through this, the resilience of the ecological system and the livelihoods of the water dependent communities are affected. Local communities are dependent on the natural environment for their livelihoods, but the indigenous perceptions also underwent dramatic change in order to exploit the opportunities offered by foreign demand and their own growing desire for imported items (Wadley, 2005). It seems that none of the parties is taking into consideration the concept of sustainable use of the environment, although they all depend on the environment. The MMA area is thus one of the many areas in the world where environmental and economic agendas clash. Battles over economic development and environmental protection are fought out in an arena of multiple actors and institutions. The consequences of the decentralisation make it more difficult to solve these conflicts. As a result of the *reformasi* there is not a single absolute authority governing land affairs at the regional level. There is no fixed determination of rules, no standard balance of powers; thus each setting and occasion has its own specific division of power. Of course, in East Kalimantan official law is present, but is not solidly anchored in local society. Moreover, it is fragmented between various government agencies, ministries and level of the administration (Bakker, 2009). Even more important, in Indonesian policy circles, local farmers and poor people are often depicted, when it comes to resource management, as ignorant, polluting, destructive and exploitative. But is this indeed the case? Are the citizens in Jempang sub-district really not able to understand the problems in their area? This is where we have arrived at the empirical

part of the thesis. With the preceding information in mind, it is now time to find out how villagers in the sub-district of Jempang, where the two research villages are located, consider the status and quality of their natural environment and its related changes and impact on household level.

5.2. THE LOCAL PERSPECTIVE ON ENVIRONMENTAL CHANGES

The following pages of this chapter will outline the condition and the change of the environment, according to villagers who are living in the sub-district of Jempang. The perceptions of the condition of the environment and the extent of change will be presented by the following environmental topics: water and sedimentation, forest and plants, and aquatic species and its population. The discussion of these three environmental topics will also pay attention to the consequences, thus the outcome, of what have been happened in the field by several actors. What are the causes of these ecological (and social) problems and since when did they start to occur? What kind of activities by villagers and oil palm plantations are able to start these problems? Lastly, what is the impact of these changes on household level? The description of the perceptions of the environmental condition and the extent of change during the last 20 years will be made according to the results of the SSIF which covers 84 households, spread out over the villages Tanjung Isuy (51 households) and Muara Ohong (33 households), which are living around the Jempang Lake (*kecamatan Jempang – kabupaten Kutai Barat*). Before I continue with unravelling the environmental field, it is essential to give a brief general description of the research population, which can be seen in the table below.

Table 3.
General information Tanjung Isuy and Muara Ohong

	Tanjung Isuy	Muara Ohong
Population	1989	788
Households	506	223
Number of SSIF	51 (10%)	33 (15%)
Number of household members	6	5
Families per household	2	1
Adults (male/ female) ²²	177 (50% / 50%)	103 (51% / 49%)
Youth (male / female) ²³	99 (52% / 48 %)	56 (59% / 41%)
Ethnic majority	Dayak Benuaq (63%) Banjar (18%) Bugis (12%)	Banjar (100%)

Tanjung Isuy is the capital of *kecamatan* Jempang and has a total population of 1989 people, spread out over 506 households. According to the SSIF, an average household consists of four to six persons, with a minimum of one and a maximum of 11 persons. Most households are inhabited by one family, in fewer cases there were two or three families living in a house. The adult population, as well as the youth population, are both gender balanced. The majority of Tanjung Isuy consists of Dayak people, but the village is also inhabited by Banjarese, Bugis and Javanese people. Muara Ohong is a small fishing village with a much smaller population

²² People who were older than 17 years, were considered as an adult.

²³ People who were younger than 16 years, were considered as youth.

than Tanjung Isuy: 788 individuals scattered over 223 households. According to the SSIF, an average household consist of three until five persons, ranging from two to 11 persons. Three quarters of the households is inhabited by one family, but there are also households with two or three families. Again, the adult population, as well as the youth population, are both quite gender balanced. All interviewed households were Banjarese.

5.3. CHANGES RELATED TO WATER AND SEDIMENTATION

The general description of the research villages brings us to the starting point of the empirical data. The former chapter and the first paragraphs of this chapter, could be considered as the necessary luggage to start this journey to discover *kecamatan* Jempang. As mentioned earlier, I shall start with discussing the data about perceptions of water changes and sedimentation changes; including the related causes and impacts on a household of a particular change. To begin with, as a good prepared researcher and, for you, an attentive reader, the problems related to water (quantity and quality) in this research area could not be missed. But still, it remains unclear how bad the situation is and how it is influencing the villagers' daily life. In relation to the changes of water quantity, the results are shocking. A majority (75%) of the villagers state that the water level of Jempang Lake and Ohong River, compared with 20 years ago, changed negatively (29%) or very negatively (46%). Another 23 percent noticed no change at all, "floods are happening for a long time in this area"²⁴. But many others stated "ten years ago, high water occurred once in five years, nowadays it is happening at least once or twice a year"²⁵. The main cause of this change is rather clear: deforestation. The mentioned actors are limited: oil palm plantations (30%), coal mines (11%), oil palm plantations and coal mines (26%), logging (9%), and lastly deforestation in general (9%). A huge majority in Muara Ohong is, remarkably enough, not aware of the situated coal mine in the Jempang area. Actually, in all the coming environmental results, villagers in Tanjung Isuy significant more often indicate coal mines as influencing actors related to environmental changes in the area. An explanation could be the isolated characteristics of the fishing village or the lack of cultural capital.

Either way, the impact on household level remains perceptible everywhere: flooded houses, streets and public buildings (55%), up to 50 centimetres and in some cases for a period of seven months²⁶. Logically, Muara Ohong is facing the biggest impact because of their lowland location, while the biggest part in Tanjung Isuy is high enough to resist the floods. It forces people in Muara Ohong to raise their houses, for example, three times in 10 years²⁷, which has a relatively big financial impact. Since many people are not able to swim, it scares 45 percent of the households. The results are clear, the water regulation system in *kecamatan* Jempang seems to be disturbed, the floods and low water levels are becoming more extreme and even more unpredictable; while people try to use the dry periods for paddy opportunities, the risk for a bad harvest has increased; it is more difficult to predict the appropriate time to sow rice²⁸. In the figures above, you can see the villagers' perception of

²⁴ Resp. 76, 23 June 2010.

²⁵ Resp. 5, 9 May 2010; resp. 25, 16 March 2010; resp. 42, 25 May 2010; resp. 46, 24 May 2010; resp. 60, 29 May 2010.

²⁶ Resp. 4, 8 May 2010.

²⁷ Resp. 5, 9 May 2010.

²⁸ Resp. 5, 9 May 2010; resp. 31, 19 May 2010; resp. 33, 20 May 2010; resp. 76, 23 June 2010.

the extent of change related to water quantity and sedimentation, presented per village in percentages.

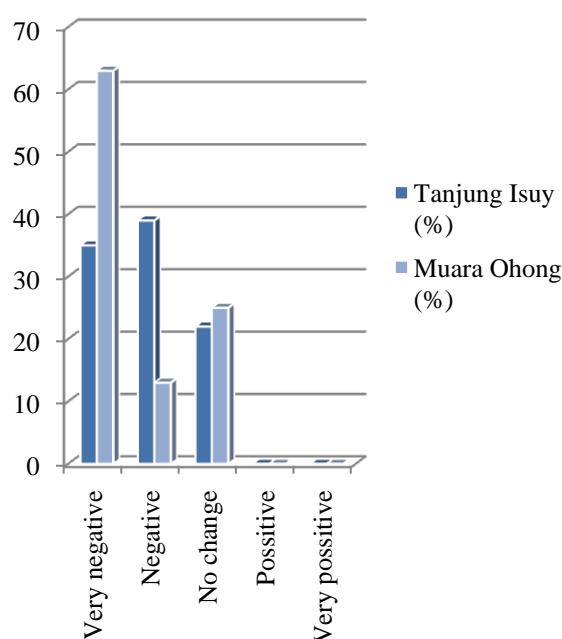


Figure 33. Perceptions of changes water quantity in *kecamatan* Jempang

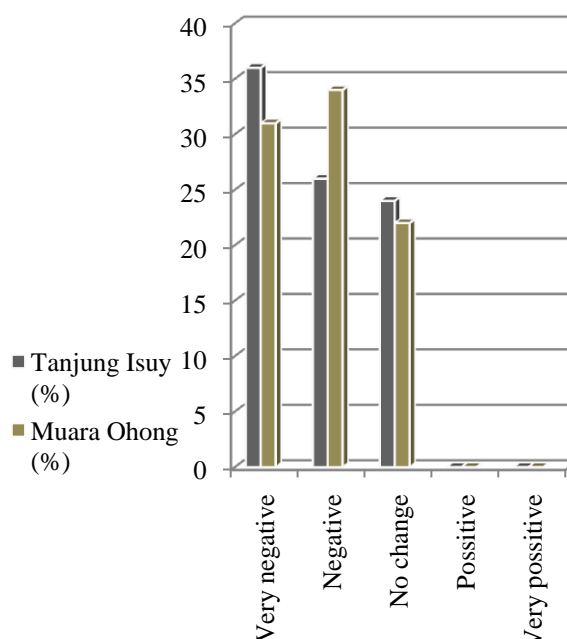


Figure 34. Perceptions of changes sedimentation in *kecamatan* Jempang

The problems of a disturbed water regulation system and deforestation stand in connection with the sedimentation process. This sedimentation process changed the last 20 years, according to the interviewed, in a negative (29%) or even very negative (34%) way: “in one year the soil of the lake can rise with five centimetres”²⁹. It is remarkable that about one quarter did not notice any changes in sedimentation the last 20 years. According to the villagers, the causes are various; some say it is a natural process (20%), but many households are relating it to deforestation in general (28%) and deforestation by coal mining companies or palm oil companies (26%). A smaller number, 13 percent, believe it is because of the clogged weeds and reed grass in the lake. Many citizens in Tanjung Isuy are aware of the fact that sedimentation in the lake reduces the water capacity; causing extreme high and low water levels (46%). During the dry season it causes transportation problems in the rivers and lake, but this has a bigger impact in Muara Ohong, because the *ces* (a motorised canoe) is their main (and often only) transportation. Another often heard impact in this village was the low fish population during dry season and, thus, the difficulty to catch enough fish (11%). A tradesman had a clear opinion about this topic: “the government neglects the sedimentation problem, which is problematic for the main villages around the lake. The government built a pipeline to suck the sediment out of the lake, but they never used it. Moreover, it causes accidents. To make it safer for the water traffic, the government put a pole with a light-signal in the lake. Unfortunately, the light-signal is not working”³⁰.

²⁹ Resp. 35, 22 May 2010.

³⁰ Resp. 54, 27 May 2010.

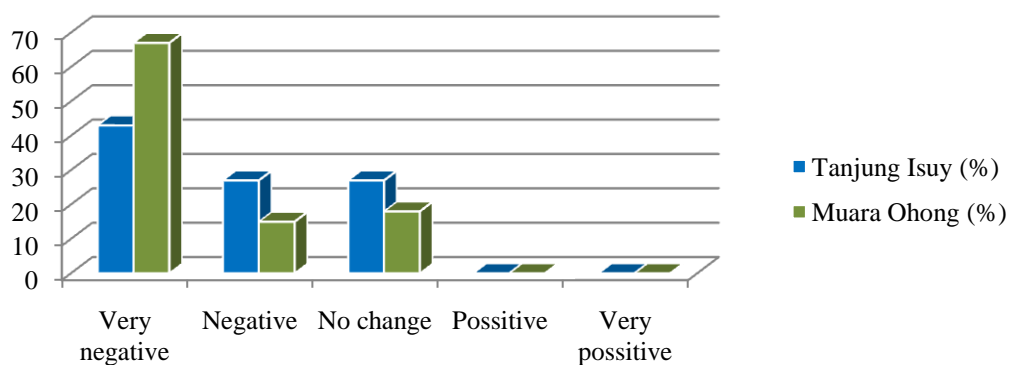


Figure 35. Perceptions of changes water quality in *kecamatan* Jempang

Finally, what can the research population tell us about the water quality? The perception of changes related to water quality can be seen in the figure above; the results are actually even more dramatic compared with the former results. More than 50 percent of the households consider the change in water quality very negative and 23 percent negative. Though, less than a quarter could not perceive any change at all. The blamed actors are, again, limited but lucid: waste from oil palm plantations (39%); waste from coal mines (7%); waste from coal mines and oil palm plantations (31%); and lastly, waste from villagers (15%). Muara Ohong blames mainly the oil palm plantations, Tanjung Isuy the oil palm plantations and the coal mines as well. Particular the people in the latter village, consider their waste management problematic for the environment and their health. Mainly households in this village complained about skin problems (irritation and itchiness) when they take a bath or have a swim in the lake, but also in Muara Ohong it is a problem. Nevertheless, the situation in the latter village is actually worse. For a long time, people just drank river water, for the simple reason that there is no public water facility in this village. Nowadays, they cannot drink the water anymore because of the decreasing quality (49%); they are forced to buy drinking water from another village, which is expensive because of the necessary transportation costs.

According to water quality measurements in Muara Ohong, the water is very acid, akin to swamp conditions, with very low oxygen levels (Nooteboom & de Jong, 2010). This explains why a fisherman mentioned that the nails of his *keramba* (a big wooden fish cage) has become rustier compared to 20 years ago; he has to make a new *keramba* each year, before it was once in three years³¹. Naturally, this is affecting the financial situation of a household, but the mortality of fish in their fish cages is even more severe. Some fishermen mentioned the dark green water which is affecting their fish severely, especially the baby fish; they all blame the poison fertilizers and pesticides used by oil palm plantations³². A study conducted between 1996 and 1999 by the Environmental Impact Controlling Body of East Kalimantan found exceeding levels of ammonium, which are derived from domestic and agricultural waste products. Also, phosphor, which is derived from fertilizer and soap products, was three to four times higher than the standard concentration³³; this is probably

³¹ Resp. 5, 9 May 2010.

³² Resp. 59, 29 May 2010; resp. 60, 29 May 2010.

³³ Standard concentration is 0,5 mg/l.

causing the eutrophication process in the lake (Budiono, 2009). In conclusion, oil palm plantations and coal mines have a considerable impact on the water quality.

Nevertheless, the villagers of Tanjung Isuy and Muara Ohong should also be blamed for the decreasing water quality, since there is no proper waste management system. Most households, 42 percent in Tanjung Isuy and 97 percent in Muara Ohong, throw their organic waste into the water. Disturbing is the fact that almost all of the interviewed households in Muara Ohong throw their non-organic waste - which may be harmful to the environment as well as to their own health – in the Ohong River. The majority of respondents in Tanjung Isuy are of the opinion that it is better to burn non-organic waste instead of throwing it into the lake. But still there is a non-negligible number of households (30%), that throw their non-organic waste in Jempang lake. In Tanjung Isuy, the village headman is working on a waste programme, but there is not yet a collecting point for waste. According to the village head, it is hard for the government to find such a place, because people refuse to offer their land to create a rubbish dump, and at the same time, the government refuses to buy the land for this aim³⁴. An attempt was made to start a waste programme, during the period of the former *Camat*. The central government provided money for a waste programme; a truck was lent, which was too small for this purpose, and a little ceremony for a new refuse dump was organised. A report was made for the central government, stating that the programme was perfectly implemented. Actually, after a couple of weeks the villagers never saw the garbage truck or the garbage dump³⁵. In Muara Ohong a waste programme does not yet exist, besides, during high water it is impossible to burn or collect the waste³⁶. Additionally, according to Nooteboom and de Jong (2010), the results of the water quality measurements in Muara Ohong were not directly dangerous for people. “The perceptions of danger however do seem to be stronger than the actual physical risk. People are getting ill, but probably due to other reasons than only by drinking or bathing in the water” (p. 10). Whether this is true or not, fact is that access to health care in both villages is below average; a small health centre (*puskesmas*) provides the basic needs, but for severe illness people have to visit the hospital in Samarinda; reachable within at least one day.

5.4. DEFORESTATION

In the foregoing, it has become clear that deforestation in the sub-district of Jempang is considered a problematic development; according to the citizens around Jempang Lake it is mainly responsible for the disturbed water regulation system and the increasing sedimentation. When exploring the perceptions of changes related to plant species and vegetation, there is a clear difference to ascertain. The decreasing vegetation seemed to be more severe, compared with the decreasing plant species. Remarkable is the difficulty that respondents had, to answer the question related to the extent of change in plant species; 18 percent simply did not know. Slightly more households did not perceive any changes. Still, 39 percent and 23 percent of the households have the opinion that plant species decreased a bit or a lot. Many people consider the oil palm plantations as the main perpetrator (39%) and to a lesser extent logging activities (15%). Another natural cause, although in some cases it is

³⁴ Village headman Tanjung Isuy, 7 May 2010.

³⁵ Resp. 70, 22 June 2010; resp. 79, 23 June 2010; resp. 83, 24 June 2010.

³⁶ Village headman Muara Ohong, 9 May 2010.

caused by human activities, are the forest fires (24%).

A so far underexposed topic that consists of the biggest impact for the households is the food supply and related nutrition; an astonishing 63 percent of the interviewed households stated to have difficulties to get fruits and vegetables. This implies the disappearance of the village forest gardens, mostly communal land that provides families with fruits and vegetables, but also timber (for firewood and to build and maintain houses). Even so, without these forest gardens, people with private land could grow fruits and/ or vegetables, which means the availability of these products; for own consumption or the possibility to earn money. Not all of the land went to the palm oil companies, although the development went so quick and occurred on such a large scale, that it affected the availability of fruits and vegetables dramatically. Another related impact is the disappearance of other forest products, mainly wood (9%).

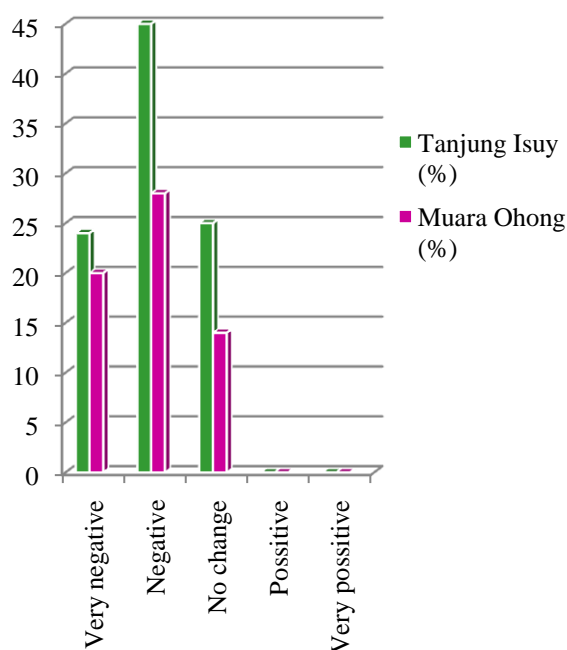


Figure 36. Perceptions of changes plant species in kecamatan Jempang

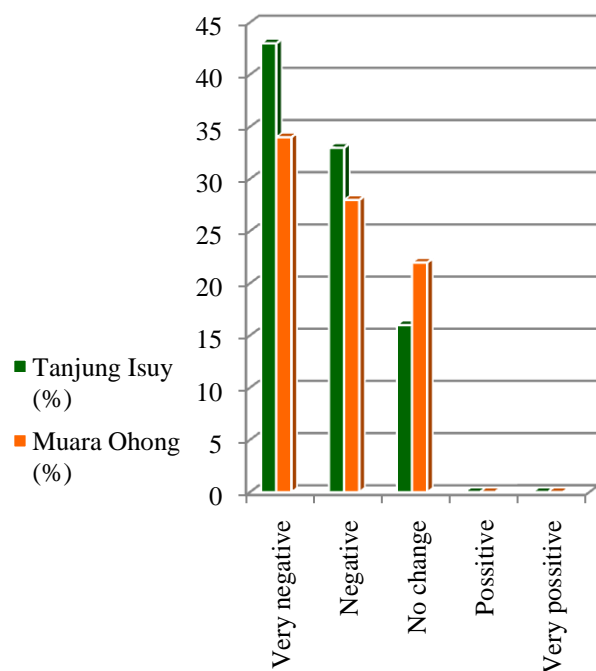


Figure 37. Perceptions of changes in vegetation in kecamatan Jempang

People in the research villages were less divided concerning their perception of the changes in vegetation, referring to the amount of secondary forest and swamp forest: 40 percent and 31 percent consider the decreasing vegetation very negative or negative, only 15 percent could not notice any change. It is remarkable that 24 percent of the households in Muara Ohong could not give an answer. Perhaps they did not know the forested area well caused by their isolated, low located village. As predicted, oil palm plantations (34%), forest fires (20%), logging (16%) and coal mines (14%) enclose the biggest part of the given causes. The highest impact on households is, again, the difficulty to get fruits and vegetables, but this 33 percent is much lower than in the former category. Another often heard impact, mainly in Tanjung Isuy, was the changing temperature; 27 percent mentioned the increasing heat: “We do not like the area as much as we did in the old days; the high temperature forces us to stay

in the house”³⁷. However, according to my personal experience during the interviews, the temperature in Muara Ohong (above the water surface, with the reflecting sun and no trees) was sometimes even hotter, almost unbearable. Naturally, many people in this village mentioned the increasing floods as main impact; not the temperature.

5.5. CHANGING FISH SPECIES AND FISH POPULATION

Since the two research villages are located by a lake, and one of the villages is a fishing community, it makes sense to zoom in on the changing fish species and fish population. In the figure below, the diagram looks surprisingly more balanced than preceding diagrams; while during the discussion of the changing water quality and quantity the fish population seemed to decrease. Clear enough, people make a strong distinction between fish species and fish population. Households that consider the changing fish species as negative and very negative, in total 57 percent, stand against another strong 39 percent of households that are considering the change as positive or very positive. Changes in a negative way were uttered more by the respondents of Muara Ohong, on the other hand respondents of Tanjung Isuy perceived the changes as more positive.

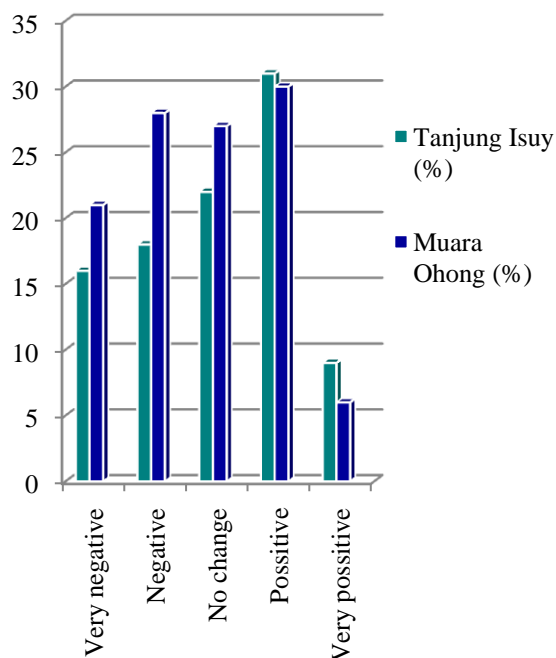


Figure 38. Perceptions of changes fish species in kecamatan Jempang

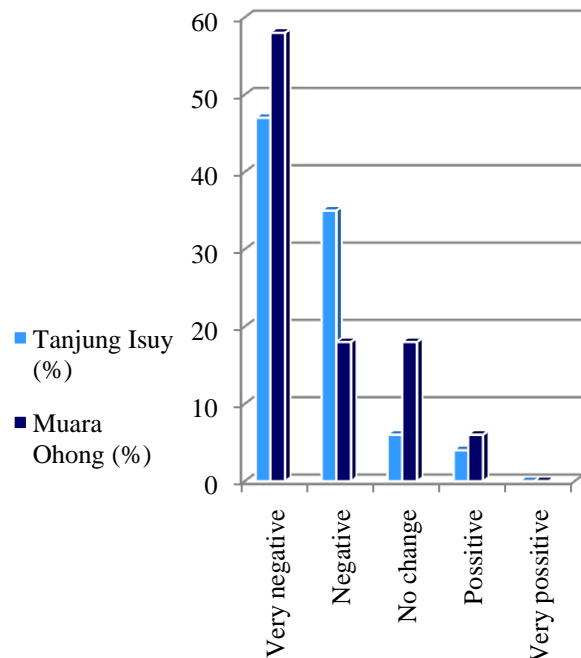


Figure 39. Perceptions of changes of fish population in kecamatan Jempang

The data concerning the causes creates more understanding of the discovered discord. In fact, the fish species indeed increased; before fishermen used the wooden fish cages to rear fish, some species like *toman* and *nila*, could not be found. These invasive species were introduced in the Mahakam area, about 20 years ago, to be reared in fish cages but soon escaped and multiplied in the lakes and rivers of the MMA (Nooteboom & de Jong, 2010). That is why 41 percent of the respondents blame the *keramba* method for releasing new species in the fish population of Jempang Lake and connected waterways. Most households consider this a

³⁷ Resp. 1, 8 May 2010; (resp. 20, 14 May 2010; resp. 74, 22 June 2010).

positive development; they are able to eat and sell new species. On the other hand, people also brought up the decreasing fish species; some vulnerable species cannot survive in the changing aquatic environment, especially concerning *belidah*, *jelawat*, and shrimps³⁸. Moreover, the decreasing size of fish is an often heard remark³⁹. 27 Percent blame the waste from oil palm plantations and the mining industry - that runs off into the waters – for the decreasing fish species. People also recognise the unsustainable fishing techniques (13%), such as the use of the electric device, poison and trawl, as a cause for the decreasing fish species. Impacts on households in both villages are that people cannot eat (46%) and sell (23%) some species any longer. Naturally, people in Muara Ohong are more uneasy, compared with Tanjung Isuy, about the decreasing fish they cannot sell anymore; after all, it is a fishing community. Changes in fish species are judged differently, they vary from village to village, and from positive to negative. The *toman* fish, for example, is a popular rear fish in Muara Ohong, but the minglement into the fish population had consequences for other species, *toman* is namely a very aggressive predatory species and even some families had a sort of *toman*-trauma⁴⁰.

As mentioned before, the dominant perception is that the fish population is decreasing. The causes for this change is spread out over several actors: the waste from oil palm plantations and coal mine activities (36%), the increasing number of fishermen (29%), unsustainable fishing methods (21%), and the use of baby fish to feed the fish in the *keramba* (7%). Remarkably, the preceding results mainly ascertain the huge environmental conceived impact of big economic players, but this category clearly shows that villagers, actually fishermen, also play their part at environmental degradation. Unsustainable fishing methods are forbidden in the region by law, it seems that there are still people who use these techniques, causing accidents and further contributing to degrading ecosystems⁴¹. The impact of diminishing the number of fish on households differs per village: Tanjung Isuy experience an increasing fish price (29%), while Muara Ohong mainly mentioned the difficulty to catch fish for their own consumption (24%) and fish they can sell (35%). A related aspect is the increase in fish cage usage which partly causes a depletion of fish stock, because the fish food consists of small fish. These small fish are usually caught in the lake. Indirectly, the fish cage culture has led to severe overfishing as large numbers of fingerlings and small fish are caught at an early stage (Nooteboom & de Jong, 2010).

5.6. SUMMARY AND CONCLUDING COMMENTS

To conclude, households from both villages see their land and forest gardens being converted by dominant economic actors. Provisioning services – fruits, vegetables, wood - disappeared and affected their nutrition and financial situation. The degrading fish resources in Jempang Lake region, especially the number of fish is considered problematic because it decreases the income for fishing communities and it destabilises the food supply. The decreasing water quality is seen as a cause for the decreasing fish population, but also the many fishermen and their unsustainable fishing techniques affect the aquatic environment negatively. In fact, the

³⁸ Resp. 5, 9 May 2010; resp. 9, 10 May 2010; resp. 54, 27 May 2010; resp. 44, 24 May 2010.

³⁹ Resp. 1, 8 May 2010; resp. 2, 8 May 2010; resp. 6, 9 May 2010; resp. 11, 10 May 2010; resp. 12, 10 May 2010; resp. 28, 18 May 2010; resp. 37, 22 May 2010.

⁴⁰ Resp. 38, 23 May 2010.

⁴¹ Village headman Muara Ohong, 9 May 2010; YK-RASI, 11 July 2010.

number of fish species increased by fish breeding in cages; these fish species are mainly invasive. On the other hand, people also brought up the decreasing fish species; some vulnerable species cannot survive in the changing aquatic environment. Decreasing water quality is also causing physical problems and the inability of households to drink from these water sources. However, it seems that the results of water quality measurements in Muara Ohong were not directly dangerous for people. People in *kecamatan* Jempang hold economic players, mainly palm oil companies and mining companies (to a lesser extent) responsible for the degrading water quality. The lake ecology is weighed down by the eutrophication process that is causing the reduction of fish resources and is changing the MMA into swampy conditions. Water measurements concluded that the water is very acid, akin to swamp conditions, with very low oxygen levels. Moreover, research found exceeding levels of ammonium and phosphor, which are derived from domestic and agricultural waste. In other words, villagers in *kecamatan* Jempang should also be blamed for the decreasing water quality, since there is no proper waste management system. Furthermore, there are other subjects of concern that influence the social and natural environment. According to the research population, deforestation through palm oil companies, mining companies, but also logging activities, cause more extreme fluctuations in water level and high sedimentation rates. The results are clear; the water regulation system in *kecamatan* Jempang seems to be disturbed. It appeared that the forest conversion also plays a role in the increasing heat in the research area. In general, it can be said that the people of Tanjung Isuy and Muara Ohong saw the status of their physical environment decreasing in the last 20 years. This is partly caused by their own unsustainable activities and on the other hand by dominant economic actors, mainly oil palm plantations. Remarkable enough, on first sight, the government does not notice the environmental and social problems or does not react with adequate measures and solutions.



Figure 40. Deforested area *kecamatan* Jempang

6. THE POWER POSITION OF CITIZENS

The former chapter ascertained the fact that big economic players have a considerable impact on the environmental condition of the research location and the households itself, but this does not mean that villagers are ‘guiltless’ of environmental degradation. All actors in *kecamatan* Jempang play a role to yield power and use natural resources; not only palm oil companies and governmental bodies, but local communities as well. In this chapter, the second sub-question of this research will be answered: “*What kind of power position do citizens and palm oil companies occupy in the sub-district of Jempang and to what extent is their position influenced by local governance?*” To understand the role of each actor and their chosen strategy, the actors’ power position will be explored. Through the use of the empirical data, key concepts of the logic of fields, such as habitus and capital will be unravelled, which will create more clarity concerning the strategies of each actor and the rules of the game that restricts the room for manoeuvre for each actor. This chapter focuses on the power position of citizens, while the next chapter shall discuss the power position of palm oil companies in *kecamatan* Jempang. These two chapters consist of the main part of the field research results, such as the outcome of the SSIF and additional semi-structured interviews. Here, the role and influence of the local government towards citizens and palm oil companies will be analysed as well. The government creates the borders to wield power for these actors after all. At the same time, the government also has a mediating function between these two other actors and the activities in the field itself. The government will not be analysed as a separate actor; the government can be considered as a sub actor which will only be mentioned in relation with the citizens and palm oil companies in the sub-district of Jempang. Naturally, these two chapters will contribute to the major part of the empirical translation of the theoretical framework, which can be seen in supportive figure of the integrated theoretical framework (page 15). This chapter will begin with the presentation of habitus and capital regarding the villagers of Tanjung Isuy and Muara Ohong; the main actors in this research.

6.1. THE VISION OF CITIZENS

The starting point of the second empirical chapter will be the description and analysis of the research population’s habitus, the 83 households, spread out over the villages Tanjung Isuy and Muara Ohong. Concerning the habitus of the villagers, it must reflect their perception, appreciation, and action related to their social and natural environment. The operationalisation of this theoretical concept in this social-environmental research has taken form by collecting data concerning the perceptions towards the environment, oil palm plantations and the government, which includes also feelings of trust, threat and injustice. To be more precise, this paragraph will start with the local perception towards environmental degradation and the motivation and/ or involvement of citizens to preserve or support the natural environment (paragraph 5.7.1.). Hereafter, the local perception towards palm oil companies and the argumentation behind the households’ vision will be described (paragraph 5.7.2.). To make the villagers’ appreciation and perception towards the environment and the main actors in the area complete, the opinion towards governmental bodies (inclusive the head of a particular body) shall be discussed as well (paragraph 5.7.3.). This paragraph will end with a deeper analysis of the social and personal conditions of households in the research villages. By

exposing the feelings of threat and injustice, it will reflect their point of view and appreciation of their social conditions on a personal level (paragraph 5.7.4.). During the presentation of the empirical data, I will describe the data of the two villages as a whole and not separately; only remarkable differences between these two villages will be mentioned explicitly.

6.1.1. ENVIRONMENT

The environment is a central issue in this research and in the former chapter it became rather clear that the environment in sub-district Jempang is decreasing. Accordingly, a big majority (83%) of the households said to have the motivation to preserve the natural environment (lakes, swamps forests, etc.) to avoid it from degradation. Households, who did not feel the need to preserve the environment, also did not notice any negative environmental changes in the area⁴². However, 50 percent of the households, who wanted to preserve the environment, did not know how they could do such a thing. It is interesting that people in Tanjung Isuy, compared to the people in Muara Ohong, can formulate more alternatives to preserve the environment; for instance, to change the villagers' behaviour regarding their waste management, the fishing methods⁴³, the involvement in illegal logging, and landownership/land cultivation⁴⁴. Despite the positive attitude towards the preservation of the environment, it almost never led to a practical realisation of nature conservation. A logical explanation is the lack of governmental involvement related to nature conservation and/ or environmental development programmes in the research area. At best, this governmental policy gap concerning environmental development could be closed by an active and well functioning civil society that could initiate environmental programmes and more awareness. Although, at the moment, there is only one NGO - YK-RASI - active in the area; the impact of civil society remains thus limited. The few people who are really involved in nature conservation or environmental preservation are mostly people who consider their collective cleaning activity (*gotong royong*) in the village streets and surroundings as environmental preservation. Further, in case of environmental awareness and the motivation to stand up for the environment, we should consider education as an extremely important factor, which will be discussed later as cultural capital.

6.1.2. PALM OIL COMPANIES

As mentioned earlier, palm oil companies are dominant market actors in *kecamatan* Jempang. According to the SSIF, the households' opinion towards oil palm plantations is quite diverse, but a negative attitude towards this business is in general dominating. 57 Percent of the households are considering oil palm plantations as a negative or very negative development. The main argument that people put forward to support the negative perception is the negative environmental impact (39%) caused by the side-effects of oil palm mono-culture, for example the water pollution through the use of pesticides and fertilizers. Other, less used, arguments, but still connected to the former main argument, are the bad influence on the people's health and mental well-being caused by the decreasing water quality and the negative impact on the

⁴² Resp. 43, 24 May 2010; resp. 45, 24 May 2010; resp. 47, 26 May 2010; resp. 50, 26 May 2010; resp. 51, 26 May 2010; resp. 55, 27 May 2010.

⁴³ Resp. 4, 8 May 2010; resp. 15, 12 May 2010; resp. 69, 19 June 2010;

⁴⁴ Resp. 34, 21 May 2010; resp. 36, 22 May 2010; resp. 37, 22 May 2010; resp. 66, 18 June 2010.

fish population, which endanger households' income and the future perspective of the fishing community, especially in Muara Ohong. Some households were frustrated and angry about the broken promises of palm oil companies, concerning financial issues⁴⁵. "Villagers who are living in the area around Jempang Lake gave - in total - 1000 hectares to palm oil companies, but never received any profits"⁴⁶. Other households put forward even more severe accusations related to illegal activities and intimidating behaviour towards villagers. If a household did not consent to selling their land to a palm oil company, the company just confiscated the land or people from the company cleared the land during the night⁴⁷. "Afterwards, the companies wanted to buy the land for a much lower price, because the land is not that productive anymore. In some cases, the companies even took the graveyard lands"⁴⁸. Remarkable is the lack of governmental support to settle the households' discontent, or at least, the effort from the police to discover the truth. "If we report it to the police, the police will not believe us or they will put us in jail. Also governmental officials (*Kepala desa*, *Camat*, or *Bupati*) do not give much support; they just stay quiet or even become angry"⁴⁹.

In contrast, there are also households with a neutral and positive opinion, respectively 24 percent and 19 percent. And of course, people realise that economic development is an important factor to fulfil their basic needs; everybody needs to earn some money by means of a job. That is why many households consider the provision of jobs as an influential argument to be neutral or positive towards palm oil companies. For some, oil palm plantations are a better economic development instead of open coal mines, which are another dominant economic actor in the region. Actually, this is only based on the visual character of these two different activities; oil palm plantations are areas planted with green palm trees, while open coal mines do not have a 'green' image; they only leave an empty and dead landscape behind⁵⁰. Therefore, some households in Tanjung Isuy and their village headman consider the opening of oil palm plantations a good development for the economy and the environment as well: "oil palms are green trees; it is comparable with a forest"⁵¹. The different views towards oil palm plantations reflect the always existing strained relations between economic and environmental arguments. It must be said that the negative attitude towards palm oil companies is more dominating in Muara Ohong than in Tanjung Isuy.

This difference in perception between the two villages, is more or less consistent with the data concerning the amount of trust towards palm oil companies, as can be seen in the table below. In this table we can ascertain that a stunning 65 percent of the people in both villages consider palm oil companies as unreliable or even very unreliable. The negative amount of trust in Tanjung Isuy it is less extreme and more scattered, compared to Muara Ohong, but also here, palm oil companies have been considered as mainly untrustworthy. The outcome can be explained by different factors. We have to bear in mind that Tanjung Isuy is a village with oil palm plantation workers, and even a - small scale - oil palm plantation owner of 70 hectares. In other words, there are households who are relying on these jobs and income.

⁴⁵ Resp. 1, 8 May 2010; resp. 4, 8 May 2010; resp. 32, 20 May 2010.

⁴⁶ Resp. 1, 8 May 2010.

⁴⁷ Resp. 1, 8 May 2010; resp. 31, 19 May 2010; resp. 76, 23 June 2010; resp. 82, 24 June 2010.

⁴⁸ Resp. 31, 19 May 2010.

⁴⁹ Resp. 1, 8 May 2010; resp. 2, 8 May 2010; resp. 32, 20 May 2010.

⁵⁰ Resp. 29, 18 May 2010; resp. 76; 23 June 2010.

⁵¹ Village headman Tanjung Isuy, 7 May 2010.

People who are directly or indirectly connected to this business, want to remain loyal to their employer. Logically, these people have a certain amount of trust towards the oil palm business. At least, the amount of trust is higher than people who do not have any connections with these business and only experience negative environmental consequences. Extremely negative feelings of trust towards these companies are rather understandable when people have had a negative confrontation with palm oil companies.

Table 4.
Feelings of trust towards palm oil companies

Amount of trust	Tanjung Isuy & Muara Ohong	Tanjung Isuy	Muara Ohong
Very unreliable	47 %	22 %	25 %
Unreliable	18 %	14 %	4 %
Neutral	18 %	10 %	8 %
Reliable	14 %	13 %	1 %
Very reliable	3 %	3 %	0 %
Total	100 %	62 %	38 %

Additionally, Tanjung Isuy, at village- and sub-district level, is receiving compensation from palm oil companies, because their village land is used partly by palm oil companies. This compensation consists of several forms; mostly it consists of a certain amount of money to a specific governmental body, but sometimes a palm oil company will support a specific sector. In Tanjung Isuy for example, they agreed to financially support all teachers in this village. But in the end, they could only fulfil this promise partly due to decreasing profits⁵². It is commonly known that the local government receives compensation from companies: “but the problem is that the government does not share the money with villagers”⁵³. Some villagers in Tanjung Isuy stated that the village headman (or the government in general) pushes households to sell the land to palm oil companies⁵⁴. The village headman of Muara Ohong has been fighting for this compensation for many years, but the palm oil company refused to concede these demands. The simple reason is that this village did not sell any land to the palm oil company, caused by the fact that the village is living, literally, on the water for a long period of the year. Because of the frequent water floods, the village area is not suitable for oil palm conversion. At the same time, people have to deal with the decreasing water quality and changing environment, which they mainly consider a consequence of the established oil palm plantations⁵⁵.

6.1.3. GOVERNMENT

In the aforementioned, the villagers’ perception towards palm oil companies and their natural environment has been outlined. There have been some negative comments uttered towards governmental bodies and officials, but to make the picture complete, how much trust do households in sub-district Jempang have in governmental bodies? More than half of the population consider government officials unreliable (21%) and even very unreliable (36%). In most cases, the lack of trust is caused by inadequate functioning of local government: “the programme of the national government is good, but especially the people who are working at

⁵² Resp. 25, 16 May 2010.

⁵³ Resp. 76, 23 June 2010; (Resp. 31, 19 May 2010).

⁵⁴ Resp. 27, 18 May 2010; resp. 31, 19 May 2010; (resp. 1, 8 May 2010).

⁵⁵ Village headman Muara Ohong, 9 May 2010.

local governmental bodies do not take their responsibility and this is causing the low level of trust in local governmental officials”⁵⁶. Other households mentioned the dirty party politics, the empty promises during election time, and bad governance in combination with lack of funds and corruption/ nepotism of the local (political) elites⁵⁷. “People are not crazy and must have seen many cars from companies visiting the *Kecamatan* to make some deals; but the money is not reaching the villagers”⁵⁸. Some households in Muara Ohong lost their trust in the government almost completely: “Muara Ohong is like a step child for the government”⁵⁹. Nevertheless, there is also a considerable amount of people with a more positive view. Another 44 percent finds government officials reliable (16%) or even very reliable (6%), the remained amount has a neutral feeling about government officials. Naturally, people who have a job as civil servant or occupy a political function - the greater part by far in Tanjung Isuy - regard the government in a more positive way. Indeed, for some it is something they ought to say; a form of political correctness. For others, it is a feeling of sincere trust and a strong believe in the government; who else can change and improve their situation? Besides, after the fall of Suharto, the central government introduced more severe laws and institutions to fight the corruption, which is resulting in an increasing optimistic mood for some citizens⁶⁰.

A larger part of the people who answered the question about trust, also specified the head of a governmental body. The specified data show us that more than the half of these people do not make a clear distinction between government officials, and consider the government as one institution. Even though, in Tanjung Isuy the unpopularity of the *Camat* is clearly noticeable. The sub-district office is located in Tanjung Isuy and therefore the leader of this governmental body is living in this village, to be more precisely, in the only concrete house in the whole village. Many citizens in Tanjung Isuy consider this man corrupt with weak governance skills; development funding provided by the *Kabupaten* (for *gotong royong* or infrastructure) suddenly disappeared or the Camat requested a certain percentage for his self⁶¹. Moreover, in Tanjung Isuy, it seems to be commonly known that the Camat has bought his degrees⁶². He is not taking care of the people in sub-district Jempang and some households are even whispering that they actually want him dead⁶³. At the same time, people are too busy to meet their own primary needs or are afraid to inform the anti-corruption body⁶⁴. Not surprisingly, the *Kecamatan* as a whole also received negative feedback from the villagers in Tanjung Isuy; even from civil servants in the *Kecamatan* itself: considerable budgets for several purposes are fading away⁶⁵. Remarkable enough, “*kecamatan* Jempang has one of the highest incomes of *kabupaten* Kutai-Barat; this is because of the revenues from the companies”⁶⁶. It is clear that the people of Tanjung Isuy have less trust in sub-district Jempang, compared to the people in Muara Ohong, who have less trust in district Kutai-Barat,

⁵⁶ Resp. 61, 29 May 2010; resp. 67, 19 June 2010.

⁵⁷ Resp. 2, 8 May 2010, resp. 44, 24 May 2010; resp. 65, 18 June 2010.

⁵⁸ Resp. 80, 24 June 2010.

⁵⁹ Resp. 42, 24 May 2010; resp. 64, 29 May 2010.

⁶⁰ Resp. 55, 27 May 2010.

⁶¹ Resp. 68, 19 June 2010; resp. 70, 22 June 2010; resp. 79, 23 June 2010; resp. 83, 24 June 2010.

⁶² Resp. 70, 22 June 2010.

⁶³ Resp. 76, 23 June 2010.

⁶⁴ Resp. 70, 22 June 2010.

⁶⁵ Resp. 67, 19 June 2010; resp. 68, 19 June 2010.

⁶⁶ Resp. 68, 19 June 2010.

which seems to be grounded in the idea that everything was better in the village when it belonged to another district before 1998.

6.1.4. THREAT AND INJUSTICE

To finalise the empirical translation of the citizens' habitus, it is time to go a bit further into the social and personal conditions of households in the research villages. By exposing the feelings of threat and injustice, it will reflect their point of view and appreciation of their social conditions on a personal level. The data show an almost fifty-fifty situation concerning the households who are feeling threatened - by someone or something - and those who do not have that feeling. Despite the negative perception towards oil palm plantations and governmental bodies and officials, these actors are not mainly responsible for the biggest part of the threats. Mostly, a combination of issues in private and business life causes the threats. However, the arrival of palm oil companies in the sub-district created a change in the power relations; land suddenly became a much more valuable natural resource and therefore, some households saw an opportunity to increase their economic capital but with attendant negative consequences. In other words, palm oil companies indirectly increased conflicts within and between families. Logically, the financial advantages were and are tempting, but in some cases the decision about a households' landownership was difficult and led to fights. In addition, the changing status of a family⁶⁷ or the problematic division of the received money within a family⁶⁸, after the land transaction, can be seen as possible underlying causes for the perceived threats.

The last topic of the villagers' habitus is to describe the feelings of injustice to their village in *kecamatan* Jempang, and if there is such a sense, who or what is causing it? The extent of injustice not only describes the social and personal condition of a household, but it also reflects the social norms and key factors in the village daily life. A considerable amount of households (67%) has a feeling of injustice. The figure below presents the data concerning the actor which is responsible for the particular injustice on village level. A huge majority (82%) of the interviewed households considers the government as the main responsible institute for the injustice in their village. The size of this category makes it necessary to crystallise the data concerning the government as the responsible institute. After all, each governmental body has its own duties, power position and governance methods to act in the field. For most households it was quite clear which governmental body occupied the most powerful position; and it is therefore the most responsible for acts of injustice. With 35 percent, the district (*kabupaten*), including the *Bupati*, is by far the most influential governmental layer concerning unjust policy and/ or bad governance. The *Kecamatan* (22%) and the government in general (16%) are less responsible, but still important actors. Surprisingly enough, just as in the former figure, companies do not play a significant role concerning unjust activities or behaviour. When we take a closer look at the exact meaning of injustice, it becomes clear why the role of the government seemed to be so important. The poor, and in some cases simply the lack of, infrastructure is one of the most important factors for the sense of injustice. Another key factor are the broken promises by government officials and political parties. Awkwardly enough, these empty promises are generally related to the

⁶⁷ Resp. 26, 15 May 2010; resp. 31, 19 May 2010.

⁶⁸ Resp. 22, 14 May 2010.

poor condition of particular necessary elements in a human society; people are longing for improvement in infrastructure, public buildings, drinking water supply, and electricity supply.

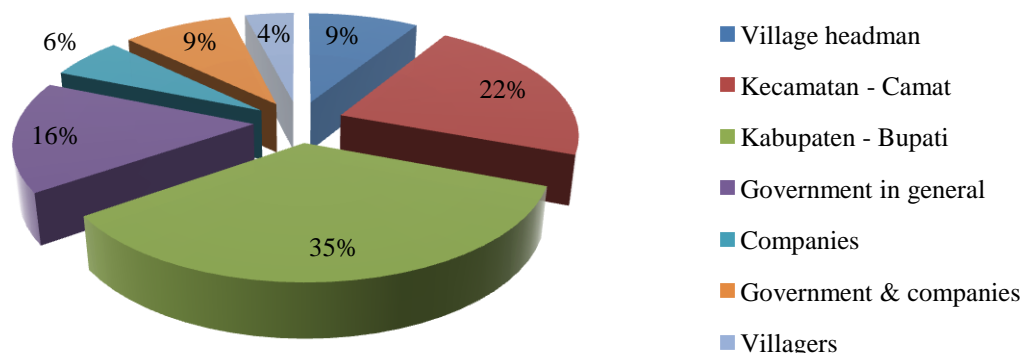


Figure 41. Feelings of injustice to village by responsible actor

Naturally, it frustrates people when local political parties and other politicians make empty promises to get enough votes when election time is coming⁶⁹. ““The government only needs our voices to vote, but they don’t care about our lives””⁷⁰. Other related factors were the lack of competent government officials and the lack of public facilities in general. To a lesser extent, people put forward the cooperation between government and companies; some promises from governmental leaders should be realised by the declared financial support of palm oil companies: “but in fact, now the companies are active in this area nothing changed”⁷¹. In other words, despite the environmental and social problems in the research location, at which economic actors, specifically oil palm plantations, play an important role, it seems like villagers consider the government as the main responsible actor and the one who is affecting households in a more severe way. The government is namely responsible for the performance of the companies, including the negative environmental impact, all the more it creates feelings of threat and injustice amongst many inhabitants of this sub-district, which is rather disturbing.

6.2. CITIZENS OF KECAMATAN JEMPANG: CAPITAL

In the foregoing, the description of the households’ habitus reflected already clear differences between the power positions of actors in the field. Land is clearly an extremely important form of economic capital in the field. The local government and palm oil companies appear to occupy the most powerful position in the area; the apparent cooperation between these actors makes their position even more stable and dominant. The question still remains, how and to what extent do these differences in power and the negative events influence the households’ capital? The second concept – capital - will be translated into three different forms: economic, social, and cultural capital. These fundamental forms of capital are different forms of power; the relative importance of a specific form will vary according to the field. In some cases, actors can use capital as a weapon and a stake of struggle, which allows its possessors to yield power and influence. Economic capital - material wealth in the form of property, money,

⁶⁹ Resp. 10, 10 May 2010; resp. 47, 26 May 2010; resp. 55, 27 May 2010; resp. 56, 29 May 2010; resp. 67, 19 June 2010; resp. 72, 22 June 2010.

⁷⁰ Resp. 18, 13 May 2010.

⁷¹ Resp. 67, 19 June 2010.

income, land, etc. - is the first form of capital that will be described. In this research, economic capital is operationalised as, enumerated in a chronological order: land ownership, land cultivation, sources of income, the socio-economic status, and the main expenditures.

6.2.1. VALUABLE LAND

During our exploration of the power structures in sub-district Jempang, the importance of land as a natural resource has become obvious; not only for palm oil companies but for the local communities as well: 41 percent of the households in Tanjung Isuy and Muara Ohong possess land⁷². The mean amount of land is seven hectares, with a minimum of 1000m² and a maximum of 70 ha. However, the division of land is not well-balanced: according to the SSIF, 63 percent of the households in the former village are landowners, against 6 percent in the latter village. Households in Muara Ohong possess in fact no land at all; this makes it difficult for this village to yield enough power during decision making processes related to oil palm plantations in the area. Besides, for the villagers itself it means a lack of extra income and additional food supply. Land can be an important resource to provide communities in living, especially in Tanjung Isuy, where rubber (74%) is the main cash crop. Other crops that people in Tanjung Isuy grow are cassava (15%), fruits/ vegetables (15%), rice (9%), and a relatively big part of the land is sleeping land (29%)⁷³.

In short, cash crops (rubber, cassava, rice) are clearly dominating the agriculture landscape. One third of the households use their agriculture production (partly) for own consumption (concerning rice, cassava and fruits/ vegetables). But the general trend is clear; if households possess land, they want to earn money with it. In a period of the last 20 years, only two households lost their land completely. This means that, if villagers sold or lost their land to palm oil companies, they did it cautiously, otherwise they would have sold all of their land. Still, households have problems getting fruits and vegetables, although some households use their agriculture production for their own consumption; it does not suffice the desired diet. This implies the disappearance of the village forest gardens, mostly communal land that provides families with fruits and vegetables, but also with timber. According to the results, a huge majority of the households noticed a disappearance of forest gardens, which were mainly converted into oil palm plantations or degraded by forest fires.

Because of the fact that many households do not possess an official land certificate, it is rather easy for palm oil companies to confiscate the desired land. *Adat*-certification and *adat*-law in general do not play an important role during land transactions in practice. Especially the dominant actors (palm oil companies and the government) only attach value to the official land certificates. With the opening of oil palm plantations, land is getting scarcer and clear certificated borders are getting more important. "All the land around Jempang Lake has an owner now"⁷⁴, but the problem is the indistinctness of which land belongs to who, and for what the land is used. Many people in the villages claim land these days, even when they are not the 'official' owner⁷⁵. The application of *adat*-law to solve these land disputes

⁷² Land for residence is excluded.

⁷³ The total percentages will exceed the 100%, explained by the fact that households divide their land, which create the possibility to grow several crops on their land.

⁷⁴ Resp. 83, 24 June 2010.

⁷⁵ Resp. 10, 10 May 2010; resp. 69, 19 June, 2010; resp. 76, 23 June 2010; Resp. 82, 24 June 2010; Camat Jempang, 19 June 2010.

between villagers can sometimes be successful⁷⁶. In general, a landowner without an official certificate runs a serious risk of losing the land. To diminish the risk, they have to make clearly visible that the land is being actively used⁷⁷. Otherwise, land could be considered as sleepy land, and thus part of government land; within no time it could be sold to interested market parties⁷⁸. Reasons for the absence of an official land certificate are varied. Some households simply do not realise the importance of such a document; caused by a lack of education, the remained trust in adat-law, or just laziness⁷⁹. But the most important reason is the expensiveness: an *adat* land certificate is cheap, but weak at the same time. To receive a full legal document, you have to contact several governmental bodies: the village government, the *Kecamatan*, and the *Kabupaten*. Including the necessary bribes and the transportation costs, an official land certificate for households is rather expensive and time-consuming⁸⁰.

This element of economic capital does not only reveal the citizens' struggle concerning land ownership and their weak position to maintain the land. It also gives a clear insight into the local impact of economic players concerning the food supply in sub-district Jempang. Forest gardens were perceived as important suppliers of fruits, vegetables and wood. Since the arrival of palm oil companies, access to and the existence of forest gardens changed negatively. Logically, a possible solution to meet the lack of fruits and vegetables is to use private land to stabilise the food supply. Nevertheless, there were only five households (of the 32) with fruits and vegetables on their private land; with such a bad access to fruits and vegetables this is rather disappointing. Stated differently, villagers in Tanjung Isuy⁸¹ have had the inadequate ability to react on the current and preceding changes concerning landownership and land conversion in the area. Also, the street scene did not create much optimism; the gardens and public places could be used more intensively for cultivation on a small scale. "Villagers are not growing vegetables anymore and just buy them at weekly market; because they're lazy"⁸². Besides, the availability and diversity of fruits and vegetables during the weekly market was also rather limited. For me this was unbelievable; after all, these were the humid, warm, and sunny tropics.

6.2.2. INCOME

The difference in landownership between the two research villages also has consequences for the households' sources of income. Since the economic structure of the two research villages is rather different, it makes sense to discuss the sources of income separately per village. During this analysis, the most important sources of income per household will also be compared with 20 years ago; this comparison will give a clear overview of the main economic developments on a local level. The data gathered during the field work concerning sources of income in Tanjung Isuy are presented in the figure below. The sources of income in Tanjung Isuy are rather diverse, but three categories are dominant: civil servants, rubber farmers, and entrepreneurs. The relatively high amount of civil servants could be explained by the fact that

⁷⁶ Resp. 10, 10 May 2010.

⁷⁷ In the case of land as a saving account, the chances are bigger to maintain the land by just 'pretending' the activeness of the land using, by planting fruit trees or other clearly visible crops.

⁷⁸ Village headman Muara Ohong, 17 July 2010; research assistants, 17 July 2010 (personal communication).

⁷⁹ YK-RASI, 10 May 2010 (personal communication).

⁸⁰ Resp. 65, 18 June; resp. 75, 22 June 2010.

⁸¹ A negligible amount of households in Muara Ohong owns private land.

⁸² Former village headman Tanjung Isuy, 10 June 2010.

the office of *kecamatan* Jempang is located in Tanjung Isuy and brought job opportunities in this village. Compared to the economic situation 20 years ago, the percentage of civil servants was almost negligible back then. It appears that the decentralisation – the increasing policy plans and decision making processes on local level - created more government related jobs in this village, which had a huge impact on the economic capital of households. The data in the former paragraph already indicated the importance of rubber as a cash crop, which is the second most important source of income. However, 20 years ago, almost 50 percent of the households were financially dependent on farming activities. At the moment, this is only 30 percent; the importance of agriculture as the main source of income for households in Tanjung Isuy is decreasing. This change could be explained by the decreasing amount of available land. Surprisingly enough, the oil palm industry plays a minor role in Tanjung Isuy regarding jobs and income. The last most important source of income is the profit generated by a shop or kiosk. Compared to 20 years ago, this category increased considerably. This development could be explained by the increasing civil servants and the growing spendable income for products that could be bought from a store or kiosk. Additionally, three quarters of the interviewed households mentioned to have a second important source of income for the household that contributes to the total income⁸³. About 95% of the interviewed households in Tanjung Isuy consider their source or sources of income stable. A lesser majority of 66 percent judge their income as enough to provide the household in primary needs⁸⁴.

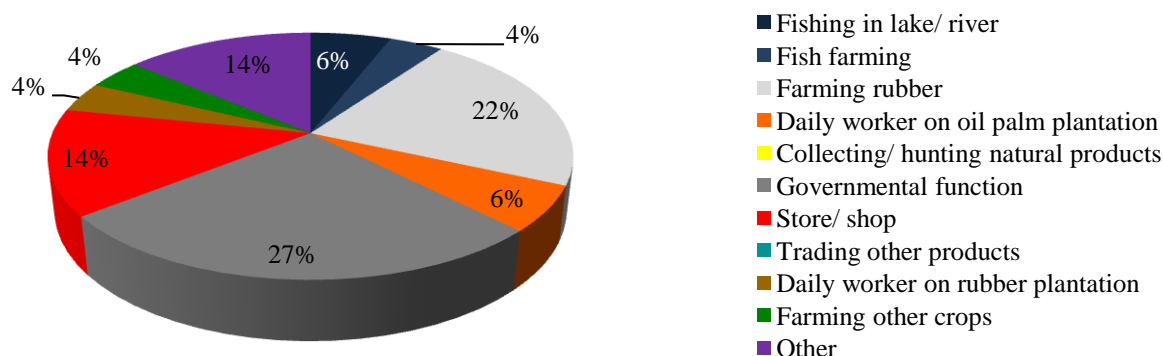


Figure 42. Most important sources of income in Tanjung Isuy [2010]

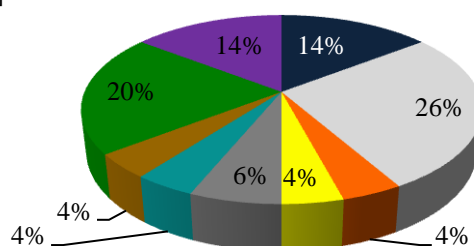


Figure 43. Most important sources of income in Tanjung Isuy [1990]

Many villages around Jempang Lake consist of fishing communities. The results of the SSIF show us that Muara Ohong is obviously a perfect example of such a fishing community.

⁸³ For instance: growing rubber and other products (rice, cassava); fishing and fish farming; plantation labour (rubber and/ or oil palm plantation); and running a shop/ kiosk.

⁸⁴ Defined as food, shelter, medicines, and education.

Almost 90 percent of the interviewed households noticed sources of income related to fish as their most important source of income. In the figure below, we can see that the most important source of income is fish farming, followed by fishing in Jempang Lake and its surrounding waters. The other less important categories are: trading fish, running a store/ shop, and a governmental function. A second source of income was mentioned by 88 percent of the interviewed households; these sources were mostly related to fish as well⁸⁵. In fact, a common used strategy is to combine the two different fishing activities to make their income more stable; approximately 90 percent of the interviewed households in Muara Ohong said to have a quite stable source or stable sources of income. If we compare these results with 20 years ago, it is simple to ascertain that Muara Ohong was and is still a fishing community. However, fishing methods are clearly changing; the use of the *keramba* (fish farming) is getting more and more popular and it slowly replaces the traditional way of fishing⁸⁶ in the surrounding waters. There could be several explanations for this perceived development: the decreasing fish population in the area; the governmental support to stimulate fish farming in the area; the easiness of fish farming instead of catching it in the lake or river; and fish farming could be considered a more stable source of income than fishing in the surrounding waters. Still, a considerable number of households in Muara Ohong faces difficulties to provide in primary needs, only 48 percent said to have a sufficient income that could fulfil these needs.

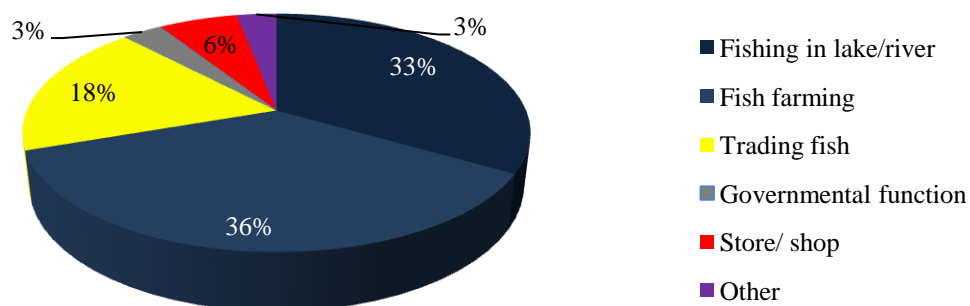


Figure 44. Most important sources of income in Muara Ohong [2010]

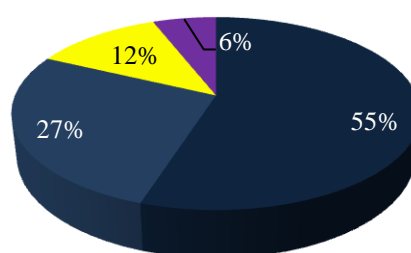


Figure 45. Most important sources of income in Muara Ohong [1990]

By knowing the sources of income of the research population, it is actually even more significant to know how households have considered their own socio-economic status during the last 20 years. Most households, 45 percent, in both villages saw their socio-economic status increasing during the last 20 years. However, 25 percent of the interviewed households

⁸⁵ A majority of these households said that fish farming in cages (66%), and to a lesser extent, fishing in the Jempang lake or in the Ohong River (21%), were important side-sources of income.

⁸⁶ For instance, the use of a fishing rod, fishing net, or a fyke.

saw their socio-economic position decreasing and the last 29 percent noticed no change at all. As we can see in the figure below, the arguments for an increasing socio-economic status were mainly related to the changes in business or job. The mentioned causes for a decreasing socio-economic status of a household are rather fragmented. A further look into the data makes the environmental dependency of Muara Ohong rather clear; the category concerning environmental changes is only mentioned by households in Muara Ohong, referring to the decreasing water quality. In combination with the increasing number of fishermen, the fish population is - together with the socio-economic status of fishing communities - decreasing. An interesting fact is that households in Muara Ohong see a big problem in the rapid changing environment, while households in Tanjung Isuy conversely do not. Yet, households lost (part) of their main resource to provide a living, but employment possibilities in a governmental function or setting up a small business, cause households to face less socio-economic burdens as result of changes in their physical environment. Mainly households in Tanjung Isuy mentioned the changes in meso-macro level; referring to the rising food and fuel prices or the decreasing number of tourists in the area⁸⁷.

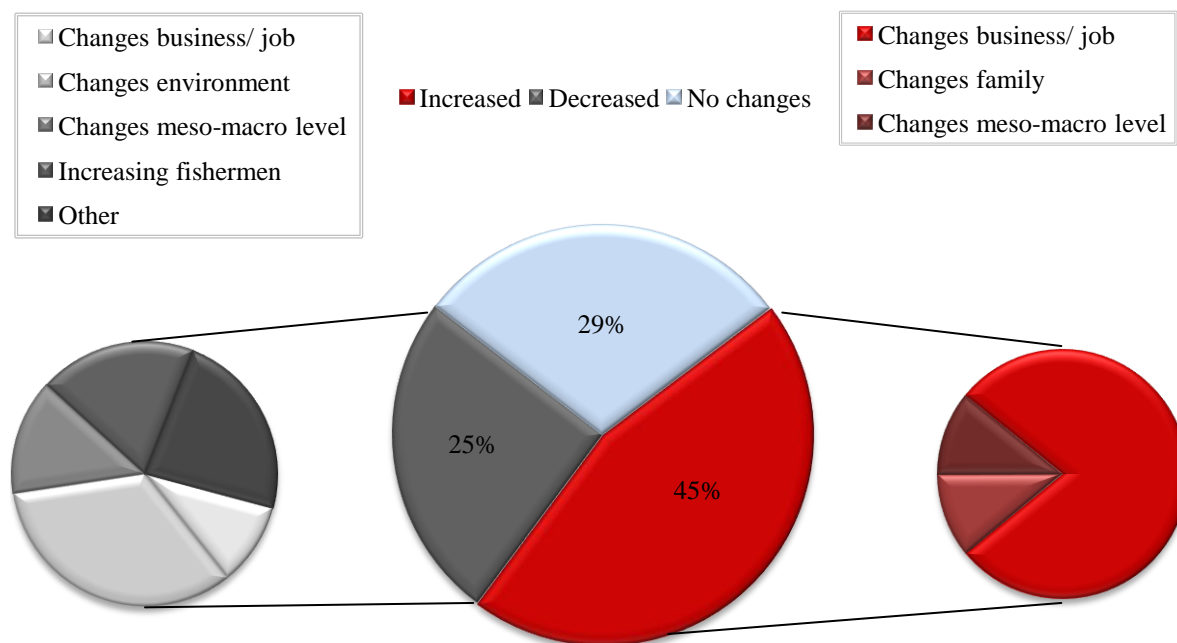


Figure 46. Socio-economic changes of households in *kecamatan* Jempang

The next to last topic, in order to complete the households' economic capital, is the discussion of the households' main expenditures over the last three months⁸⁸. Both villages consider the nutrition related expenditures the largest category by far. The only relatively big remaining category is, concerning the main expenditures per village, 'school costs' in Tanjung Isuy and 'water transportation costs' in Muara Ohong. Typically, the isolated location of Muara Ohong makes transportation and mobility expensive; mainly caused by the necessary fuel for the *ces* (a motorised canoe). Other less mentioned expenditures in Muara Ohong are 'fish food' and 'domestic costs'⁸⁹. Since there even is a high school in Tanjung

⁸⁷ Resp. 1, 8 May 2010; resp. 18, 13 May 2010; resp. 39, 23 May 2010; resp. 57, 27 May 2010

⁸⁸ According to the SSIF, almost all households stated that the expenditures are representative for 1 year.

⁸⁹ Domestic costs are defined as costs related to electricity, water, telephone, maintenance of house, etc.

Isuy, compared to Muara Ohong, education is much better accessible. Therefore, most of the time children also get the opportunity to finish their education, despite the relatively high costs for the household. Beside school costs, other additional expenditures such as 'other domestic costs', and 'transportation costs' are important as well. In other words, the expenditures of households in Muara Ohong mostly concern pure primary needs, while households in Tanjung Isuy have also considerable costs related to secondary needs.

6.3. SOCIAL CAPITAL

Social capital, which is the second form of capital, will be discussed in this paragraph. This form of capital consists of social resources in the form of networks and contacts based on (institutionalized) relationships of mutual acquaintance and recognition that accrue to an individual or a group. To make the translation from theory to practice, I will describe the following topics, in a chronological order: feelings of mutual trust among village members; the supportive behaviour between village members; participation in social organisations; participation in collective activities; and conflicts in the village and in sub-district Jempang in general. According to the data, 50 and 39 percent of all interviewed households considered their feelings of trust among village members, respectively, high and medium. The results from Muara Ohong are more positive than those from Tanjung Isuy. An explanation could be the size of the total community; Muara Ohong is a much smaller and rather homogenous community. Luckily, in case of urgent demand, more than 80 percent of the households will receive support from other villagers⁹⁰. Thus, the size of the two villages and their ethnical composition could influence the feelings of mutual trust and the relationship between villagers, but it does not say anything about the extent of participation and the membership of a social organisation. According to the SSIF, 40 percent of the interviewed households is a member of a social organisation, however, this category consists mainly of households from Tanjung Isuy. It appears that there are actually no social organisation presence in Muara Ohong. The types of social organisations in Tanjung Isuy are quite diverse, from a Catholic Women's Organisation⁹¹ and a non-religious Women's Organisation⁹², to political organisations; although the motivation to join a political party is mostly based on social commitment or just for socialising⁹³. Some households lost their credibility in their party or perceive the dominating PDIP (*Partai Demokrasi Indonesia Perjuangan*) as too influential, so that participation in any social organisation makes no sense at all⁹⁴.

In both villages, households seem to be participating quite well in collective activities; 60 percent of the households did participate in a collective activity in their village. A further look into the data reveals that these numbers seem more positive than they really are. In fact, 78 percent of these households - who participated in a collective activity - have been supporting the *gotong royong*, the collective cleaning activity, which is usually obliged by the village headman, because of a ceremony or a governmental inspection⁹⁵. Hence, it is a

⁹⁰ Support in the form of money, food or emotional support.

⁹¹ Resp. 1, 8 May 2010

⁹² PKK; provides food for children and education regarding family planning and activities to earn extra money as a woman (resp. 30, 18 May 2010).

⁹³ Resp. 29, 18 May 2010; resp. 65, 18 June 2010.

⁹⁴ Resp. 2, 8 May 2010; resp. 5, 9 May 2010.

⁹⁵ Resp. 37, 22 May 2010; resp. 73, 22 June 2010; resp. 85, 24 June 2010.

collective activity that does not take place on a regular basis. The main reason to join *gotong royong* is simply to obey governmental orders. The other 22 percent of the households who did participate in a collective activity, consists of participation during a meeting or discussion. Both village leaders stated that they would only organise a meeting in case the government implements a new programme or establishes a public facility; which is not that often. Additionally, both heads organised a village meeting to discuss the plans of a new oil palm plantation; in fact it was more an informative meeting without any decision-making, because the decision would be made by a higher authority⁹⁶. Meetings and discussions should have a more open character: “it’s difficult to join a meeting when you are against the companies; there are only a few people who are able/ allowed to join these meetings”⁹⁷. Moreover, the public communication and transparency of local governance in general should be better. Village heads may not occupy the most powerful governmental function, but still, for the local community they have an important symbolic function; to give a decent example. Even more important, local leaders could also improve the social cohesion to create active and committed community members. It is a pity that both village headmen, especially the one in Tanjung Isuy, do not realise their potential. Generally speaking, the involvement of villagers concerning decision-making processes remains rather limited.

As noticed in the aforementioned, there are some tensions in the two research villages, but it is still not clear if citizens experience real conflicts between village members or families in their village. Fortunately, 76 percent of the interviewed households stated that there were almost never conflicts of that kind in their village. Another 18 percent and 6 percent experienced conflicts ‘sometimes’ and ‘often’; in general, households in Tanjung Isuy perceived more conflicts compared to households in Muara Ohong. Not surprisingly, according to the interviewed households, conflicts between village members or families are mainly related to land issues. Almost all of these conflicts were solved by the application of *adat-law*⁹⁸. Concerning conflicts outside the village, in sub-district Jempang, the results are quite similar to the former topic. A majority of 75 percent stated that there are almost no conflicts in this area, followed by 21 percent (sometimes) and 4 percent (often). Households in Tanjung Isuy seem to be more aware of conflicts in the area and did confirm the importance of natural resources. The mentioned causes of the conflicts can be classified in three categories: the use of fishing methods, the use of a particular fishing area, and the use of particular land area. The former two causes were mainly mentioned by citizens of Muara Ohong, and the latter cause by citizens of Tanjung Isuy. Fortunately, almost all conflicts were solved by the policy or the government in general, to a lesser extent, the use of *adat-law* and a proper discussion between the related actors were mentioned ways to solve the problem.

6.4. CULTURAL CAPITAL

In order to reveal the citizens’ capital completely, there is still one form of capital that needs to be discussed. The third form of capital is cultural capital; it relates to informational assets and the education level of an actor; in this case the households in Tanjung Isuy and Muara

⁹⁶ Village headman Tanjung Isuy, 7 May 2010; village headman Muara Ohong, 9 May 2010; resp. 10, 10 May 2010; resp. 24, 16 May 2010.

⁹⁷ Resp. 22, 20 May 2010.

⁹⁸ Resp. 4, 8 May 2010; resp. 22, 14 May 2010; resp. 26, 15 May 2010; resp. 33, 20 May 2010.

Ohong. The empirical translation of cultural capital has been done through the use of the following measurable topics: the highest education level reached within a household; the access to news or information; and the knowledge of environmental regulation concerning the performances of palm oil companies. Naturally, cultural capital is strongly connected to the other two forms of capital; the differences between the two research villages, concerning their economic and social capital, can also clearly be seen in the results of the first topic: the education level of the household members, presented in the figure below. According to the SSIF, a huge majority (79%) of the households in Muara Ohong only finished elementary school, which presents a contrast with the education level of households in Tanjung Isuy. Most households in Tanjung Isuy have an adult household member who finished senior high school (45%) or junior high school (27%).

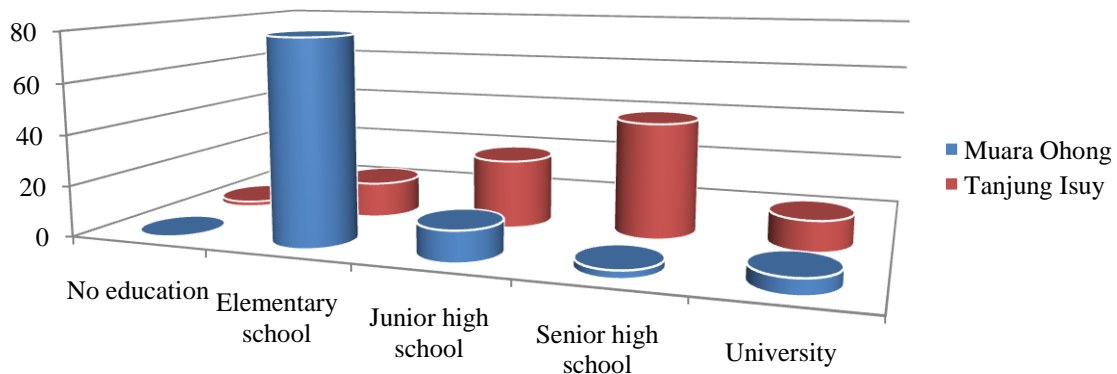


Figure 47. Highest education level reached among adult household members

The most important explanation for this discrepancy probably lies in the extent of accessibility to education and the presence of public facilities. Tanjung Isuy offers high school, while in Muara Ohong only primary school is available. As a villager of Muara Ohong, the combination of school costs and transportation costs will increase the daily expenditures of a household substantially and many households simply cannot afford this⁹⁹. Access to education is considered, in both villages, an important element in life. Nonetheless, many households in Muara Ohong have already realised that the majority is not educated enough to qualify for a ‘good job’, the education possibilities are simply too far away, so their children’s future will also be in the fishing sector¹⁰⁰. Also, households in Tanjung Isuy have accepted that their childrens’ education will be too low, which forces them to become a farmer as well, at least in case the household will not lose their land¹⁰¹. The importance of attending school lies not only in increasing possibilities to have a good job in the future, but also in the broader development of children where environmental awareness can be increased as well. A teacher in Tanjung Isuy told that he teaches his students about the environment, waste management, and the development of sustainable products¹⁰². What children learn in

⁹⁹ Resp. 8, 9 May 2010.

¹⁰⁰ Resp. 8, 9 May 2010; resp. 9, 10 May 2010; resp. 13, 10 May 2010; resp. 16, 13 May 2010; resp. 44, 24 May 2010; resp. 45, 24 May 2010; resp. 50, 26 May 2010; resp. 51, 26 May 2010; resp. 53, 27 May 2010; resp. 56, 27 May 2010; resp. 60, 29 May 2010; resp. 63, 29 May 2010.

¹⁰¹ Resp. 1, 8 May 2010; resp. 32, 20 May 2010; resp. 66, 18 June 2010; resp. 84, 24 June 2010.

¹⁰² Resp. 85, 24 June 2010.

Tanjung Isuy stands in sharp contrast to the situation in Muara Ohong, where - besides - children only go to school when the school building is not flooded.

Another important topic is the accessibility to news or information. 85 Percent of the households in both research villages have daily access to news and information, which often reaches them through the television. The most popular subjects on television are: news in general (30%), news concerning politics and economics (41%), and amusement (26%). Television has an important function in the villages; it provides news about developments in their region and Indonesia as a whole, and furthermore, it gives households some entertainment in the evening as well. Other less popular information sources for household members are the Women's Organisation (PKK), education sessions initiated by the mosque, or a sporadic governmental programme.

The last topic, the households' knowledge of environmental regulation concerning the performances of palm oil companies, does not only examine the pure knowledge of formal governmental regulation, but it will also deal with the noticed practices in *kecamatan* Jempang. In general, the knowledge of environmental regulations concerning the performances of palm oil companies is limited, only 23 percent of the interviewed households had some knowledge of this topic. People in Tanjung Isuy were more able to answer this question positively than people in Muara Ohong, which is logically caused by the higher education level in Tanjung Isuy and more contacts with the palm oil sector. Many households are of the opinion that palm oil companies do not comply with governmental regulations. Different arguments were used to support this vision: some households mentioned the bad fulfilment of the concluded agreements concerning the land transaction between households and palm oil companies; related to the financial transaction in general, the profit sharing, or labour programmes for villagers. The attitude of the government could be more active and fair concerning land disputes and in cases of non-fulfilment of agreements and governmental rules: "The government can't handle the companies, but the companies can handle the government"¹⁰³. Other households question the governmental supervision on the companies' performances and the content of the regulation in general. "The governmental regulations are made for the companies and are not made for the well-being of villagers or the environment; the regulations are weak"¹⁰⁴. This also explains why so many households do not take the permit procedure for companies seriously. If the government properly checks the landownership and its borders, why are there still so many land issues? Money seems to be the main cause for the governments' easiness to issue permits or for thoughtless and not well-considered decisions¹⁰⁵. In some cases the government already provided permits before the landownership was settled¹⁰⁶. In the end, the story remains the same: "*Ada duit, ada aksi*"¹⁰⁷.

¹⁰³ Resp. 31, 19 May 2010; (resp. 2, 8 May 2010; resp. 36, 22 May 2010; resp. 68, 19 June 2010; resp. 71, 22 June 2010).

¹⁰⁴ Resp. 1, 8 May 2010; (resp. 10, 10 May 2010; resp. 26, 15 May 2010; resp. 34, 21 May 2010; resp. 75, 22 June 2010)

¹⁰⁵ Resp. 2, 8 May 2010; resp. 10, 10 May 2010; resp. 56, 29 May 2010; resp. 68, 19 June 2010; resp. 70, 22 June 2010; resp. 26, 15 May 2010; resp. 31, 19 May 2010; resp. 34, 21 May 2010; resp. 66, 18 June 2010; resp. 75, 22 June 2010.

¹⁰⁶ Resp. 1, 8 May 2010.

¹⁰⁷ Resp. 30, 18 May 2010: When there's money, there's action.

6.5. SUMMARY AND CONCLUDING COMMENTS

The analysis of the citizens' habitus has revealed the general weak power position of citizens in *kecamatan* Jempang, which is mainly originating from their economic capital that influences social and cultural capital as well. This limits the possible strategies for citizens to react on and adapt to the current environmental changes. In particular, Muara Ohong occupies a weak power position. As a fishing community, the households' sources of income are not varied and are strongly dependent on the condition of the environment; this combination makes them extremely vulnerable for environmental degradation. The combination of degrading water quality - caused by pollution by dominant economic actors and a lack of proper waste management by the communities themselves - and the decreasing fish population - caused by the degrading water quality, the increasing number of fishermen and unsustainable fishing methods - affects the households' income and socio-economic status. Obviously, these people consider the rapid changing environment a big problem. A dominant strategy for fishing communities, as a response to the decreasing environment in order to stabilise their income, is to mainly financially depend on fish farming. Still, a considerable number of households in Muara Ohong faces difficulties to provide with primary needs; the expenditures consist mostly of nutrition and transportation, so there is hardly money for education and health care. Furthermore, the isolated location of the village makes it even more difficult; the necessary transportation costs for food, drinking water, education and health care have a negative impact on their economic capital. Besides, the lack of available land makes it difficult for this village to yield enough power during decision making processes related to oil palm plantation in the area. For the villagers itself it means a lack of extra income and additional food supply.

The power position of villagers in Tanjung Isuy, a community which mainly depends on agricultural activities, seems to be less fragile. The possession of land provides households with income, and to a lesser extent, households use the land to stabilise their food supply. Agricultural communities are less dependent on the aquatic resources, but here we can see some change as well. Firstly, agriculture as a main income is decreasing, still, rubber as a cash crop remains an important source of income. Secondly, it appears that the decentralisation bears fruits in the form of governmental jobs. Despite the relatively large amount of civil servants in the village, it does not influence the local governance in favouring citizens of this sub-district capital; most of the power is concentrated in the hands of the local political elites. Thirdly, businesses such as kiosk, stores, and eating-places grew considerably. Indeed, the decentralisation has had a positive impact concerning the economic capital of Tanjung Isuy; it increased the socio-economic status of several households and created business opportunities. A combination of more diversified sources of income, less dependency on aquatic resources and the increase in government-related functions made households face less socio-economic burdens as result of changes in their environment. A majority of the households rate their income as enough to provide the household with primary needs; the expenditures for nutrition cover the biggest part, although costs related to education and health are considerable.

Remarkable enough, dominant economic players, such as palm oil companies and mining companies, do not play an economic important role for citizens in the sub-district of Jempang. Naturally, Tanjung Isuy receives financial support (compensation) from the palm

oil company; unfortunately, this does not reach the villagers. Paradoxically, most of the environmental problems that villagers have to deal with, seem to be caused by oil palm plantations and mining activities. In Tanjung Isuy, the environmental problems are overshadowed by issues concerning land ownership. Since the arrival of dominant economic players such as coal mine companies, but mainly palm oil companies, access to and the existence of forest gardens and private land has changed negatively. Naturally, a possible solution to meet the lack of fruits and vegetables is to use private land to stabilise the food supply. In reality, this is not the case; it appears that villagers in Tanjung Isuy had not the ability to adapt their strategy, to react to the current and preceding changes concerning landownership and land conversion in the area. At the same time, the possibilities to empower themselves through the use of natural resources are limited. Not only are the accessibility and opportunities for local communities to use natural resources in the area decreasing, also the amount and the quality is getting worse. Besides, according to the law that was implemented after the *reformasi*, it is necessary to acquire a permit for using forest products in general. The existing frustrations about this law are aggravated by the fact that people can lose their land suddenly to palm oil companies, if they are not in possession of an official land certificate; *adat* certification does not count in these cases. Not everyone in Tanjung Isuy realises this or they simply do not have the money for the whole certification procedure. All the more, the permit allocation procedure for palm oil companies is considered relatively easy; palm oil companies have the necessary networks with governmental bodies and politicians, which are based on money, after all.

The influence of citizens in *kecamatan* Jempang on local governance and the performance of companies is rather limited. This has not only to do with the economic capital of citizens, but with their social and cultural capital as well. The extent of social organisations in the area is moderate and the civil society is not well developed. However, in Tanjung Isuy there were more small groups constituted related to education or village events. Muara Ohong has not the facilities to do these things. In both villages the collective activity, in the form of *gotong royong*, is a returning event but not on a clear regular basis. To a lesser extent, citizens attend a public meeting or discussion, but these are also only held sporadically. Furthermore, the public communication and transparency of local governance should be better. The local government must face its image problem; a majority of the citizens consider the government, especially the *Camat* and *Bupati*, untrustworthy and blame them for the injustice in their village. The palm oil companies have a bad image and cause problems in the field as well, but in daily life, the government causes more structural problems; the several disappointments and broken promises from politicians and political parties in the past are still in the minds of the villagers. In addition, the government is responsible for checking the performance of companies, including the negative environmental and social impact.

The differences between the two research villages, concerning their economic and social capital, can also be clearly seen in the households' cultural capital level; a huge majority of the households in Muara Ohong only finished elementary school, which presents a contrast to the education level of households in Tanjung Isuy (high school). The most important explanation for this discrepancy probably lies in the extent of accessibility to education and the presence of public facilities. The importance of education lies not only in a proper future job, but also in increasing environmental awareness and the possibilities to

empower the community and making them more able to change other actors' strategies and the possibility to adapt their own strategy. The lack of governmental facilities and support in general, is preventing the development of the citizens' social and cultural capital, which limits the possibilities to improve their economic capital and their economic power position in the field. Besides, the isolated location of the research villages and the lack of proper infrastructure make the citizens' room for manoeuvre, literally, more limited. The isolated location and small population also creates more difficulties for the government to provide certain facilities. An even more important cause for the lack of governmental facilities and action concerning (land) conflicts, environmental problems, and negative social and environment performances of companies, is bad local governance. This means, a poor monitoring capacity, lack of transparency of decision-making, just and fair politics, and their inability to implement and maintain governmental policy. Even more important, the financial situation of the local government is not the problem here; the management and the distribution of the budget is. The impact of the self-enrichment and corruption of the local political elites is enormous. This all must be seen in the context of the increasing economic value of land as a natural resource and the arising problems with landownership between the citizens and the local authorities and palm oil companies, but within and between families as well. Land is clearly an extremely important form of economic capital in the field. The local government and palm oil companies appear to occupy the most powerful position *kecamatan* Jempang; the apparent cooperation between these actors is making their position even more stable and dominant.

7. THE POWER POSITION OF PALM OIL COMPANIES

All in all, the extended discussion of the former chapter created much clarity concerning the power position of citizens. Also, the position of palm oil companies and the role of the local government in the game have been touched. In order to outline a well-balanced and proper analysis of the power structures in *kecamatan* Jempang, it is necessary to shed light upon the other important actor in this research: the palm oil companies. This actor will be analysed by the key concepts of the logic of fields, although this will be done in a less extensive way, since this research has a social-environmental focus. The elaboration of the key concepts will be made on the basis of the main discovered topics during the former chapter. In effect, it will reveal the other side of the mentioned question at hand, according to people who are connected to the palm oil sector. Therefore, this last part of the chapter will mainly consist of the additional semi-structured interviews, obtained documents, and scientific literature.

7.1. THE VISION OF PALM OIL COMPANIES

The outline of the palm oil companies starts with the first concept, *habitus*. It will be operationalised as follows: the company's vision towards the environment and local communities; the future perspectives and plans; the definition of and approach to possible problems, regarding the disputes with villagers, environmental degradation; and the governmental policy concerning environmental performances. For the sake of clarity, this paragraph will begin with a short introduction of the palm oil companies in *kabupaten* Kutai Barat. In this district, there are only three estates - all located in *kecamatan* Jempang - in which oil palm has been planted: PT London Sumatra International, PT London Sumatra Indonesia and PT Gelora Mahapala. All three of these estates fall under a company known as PT London Sumatra International Tbk (PT LonSum). The specific location of these oil palm plantations in the area around Jempang Lake, including the location of a possible new oil palm plantation at the Southwest border of the lake, can be seen in the map on the next page. The current plantations have been established on land belonging to a number of Dayak Benuaq villages located in *kecamatan* Jempang, including Tanjung Isuy (Casson, 2001). The principal business of LonSum is cultivating, harvesting, processing and marketing of oil palm, and to a lesser extent rubber. Currently, LonSum has oil palm plantations totalling 8,071 hectares in *kecamatan* Kutai Barat; compared with the total of 101,705 hectares in whole Indonesia (mainly North and South Sumatra) it covers a relatively small of the company's totality (PT PP London Sumatra Indonesia Tbk, 2010a). In 2007, LonSum was acquired by the Indofood group through PT. Indo Agri Resources Ltd. ING, Standard Chartered Bank, Sumitomo Mitsui Banking, and Bank Central Asia provided a loan of \$ 25 million for the acquisition. With 60 percent, PT. Indo Agri became the company's major shareholder (Data Consult, 2009).

The vision of LonSum concerning the perception towards the environment and local communities, including future perspectives and plans, is rather positive and optimistic. As a matter of fact, since 2004, the palm oil company is an official member of Roundtable on

Sustainable Palm Oil (RSPO)¹⁰⁸. However, the implementation of the RSPO principles and criteria needs time; it is a process in which oil palm estates located in Sumatra have the main priority. LonSum expects that the whole implementation process in all areas to be completed by the end of 2015 (PT PP London Sumatra Indonesia Tbk, 2010b). In the last annual report of 2010, LonSum stated that they will continue their sustainability journey passing the RSPO annual surveillance audit in 2010. According to the company, LonSum has always attached importance to balancing solid business results with a commitment to the company's responsibility towards the environment and the local community; communities are essential stakeholders in their daily business and they will ensure to maintain healthy relationships through regular, genuine consultation and by facilitating community development (PT PP London Sumatra Indonesia Tbk, 2010a, pp. 47-48). The following quotation on their homepage makes their vision concerning the perception towards the environment quite clear: "Sustainability lies at the heart of our business. LonSum is driving to become an acknowledged world leader in the movement towards true sustainability in the oil palm and rubber plantation industries"¹⁰⁹. The sustainable presentation of LonSums' core business could be a positive sign for future developments, nevertheless, compared to the current situation in the sub-district of Jempang - according to the empirical data from households in Tanjung Isuy and Muara Ohong - the company's vision could be considered rather ambivalent. Not only the empirical data of this research, but also other research results, doubt the environmental and social sustainability of LonSum's activities.

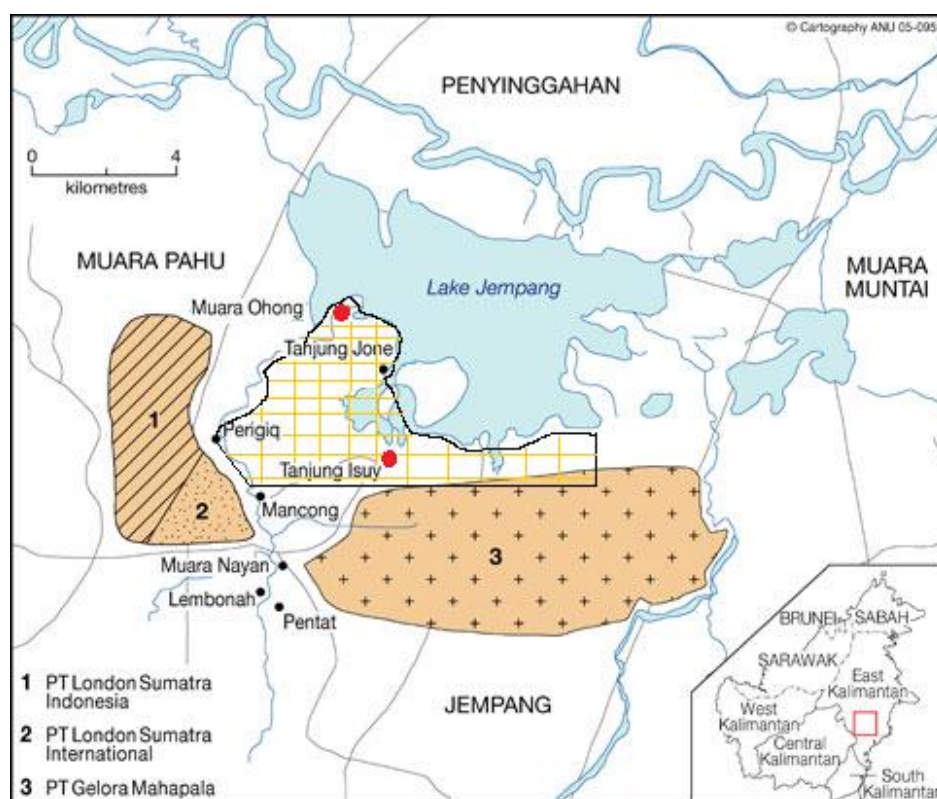


Figure 48. Location of oil palm plantations in Kutai Barat¹¹⁰

¹⁰⁸ According to the chairman of GAPKI (21 July 2010), the RSPO certificate is only being used to receive a higher price for palm oil; he considers it as a form of window dressing.

¹⁰⁹ PT PP London Sumatra Indonesia Tbk: <http://www.londonsumatra.com/content.aspx?code=10000000>.

¹¹⁰ Source: Map data partly from GTZ Sustainable Forest Management Project and PT Delta Utama Resources.

LonSum has been heavily criticised by grassroots organizations and NGOs for its alleged association with the 1997-98 forest fires and illegal land clearing; and for its oppressive action against local people (Muliastira et al., 1998; Gönner, 1999; Telapak et al., 2000; AidEnvironment et al., 2000). Since the opening of the first oil palm plantations in 1995-1996, few attempts have been made to resist against palm oil companies by people of Tanjung Isuy and surrounding villages. Between 1997 and 2006, approximately four big demonstrations against LonSum have taken place. These demonstrations were supported by citizens who were living in the oil palm plantations' surroundings, and received back-up from some NGOs (Putih Jaji, LOW, et al.) as well. Reasons for the discontent and anger were the lack of information delivery towards citizens regarding the company's activities, moreover, the company failed to adequately compensate some members of the community for land which was already cleared and planted with oil palm. They also claimed that the company had failed to respect sacred areas such as Dayak graveyards. In some cases the demonstration escalated; the insurgents occupied the LonSum base camp and some community members even destroyed company goods and burnt down a number of buildings. They also refused to let company staff enter the premises and effectively closed down all operations. In the end, the local authorities (police and military) put an end to the demonstration and some villagers even got in jail for three until twelve months¹¹¹ (Casson, 2001).

According to the chairman of GAPKI (Indonesian Palm Oil Association) it is incomprehensible how these conflicts and misconceptions could arise. After more than ten years, people are still complaining about land issues. Most of the time it is not a communal problem, but a personal problem related to money or a job. LonSum has been communicating clearly and timely about the plans with the land and the future of the villagers. The plans were based on long-term; therefore, villagers did not understand it. LonSum offered the villagers the Plasma programme (a labour programme), but this could only become reality after minimally three years, when the official permit procedure was finished; for villages this period was too far ahead. Palm oil companies have the governmental obligation to set aside a small plantation – in total 20 percent of the total plantation land, 2 hectares per household - for the villagers, which can be rented and used by the villagers to earn an income¹¹². Regardless of the fact whether or not the villagers understood the Plasma programme, many villagers still mentioned the programmes' indistinctness during the interviews. In fact, in *kecamatan* Jempang there is no Plasma programme at all¹¹³. "The government is also wrong, it pushes the companies to realise the Plasma programme, but if this is not the case, the government does not react to it"¹¹⁴. Either way, LonSum did not give the Plasma programme to the people¹¹⁵; it neglected the villagers and created another empty promise. The Camat explains it differently: "it is because the companies do not have trust in the villagers anymore"¹¹⁶. Another respondent that has a direct connection to the palm oil sector stated that

¹¹¹ Former village headman of Tanjung Isuy, 25 June 2010; resp. 1, 8 May 2010; resp. 20, 14 May 2010; resp. 36, 22 May 2010; resp. 72, 22 June 2010; resp. 78, 23 June 2010.

¹¹² Chairman GAPKI, 21 July 2010.

¹¹³ Resp. 68, 19 June 2010.

¹¹⁴ Chairmain GAPKI, 21 July 2010.

¹¹⁵ Resp. 80, 24 June 2010 (private oil palm plantation owner).

¹¹⁶ Camat Jempang, 19 June 2010.

the land issues with village communities are caused by bad communication and misunderstanding within families themselves; for some family members it is unclear that their land officially does not belong to them anymore. If family members cannot take their land back, they want financial compensation. Palm oil companies try to solve this problem by using different strategies: firstly, they will split the sum of money that the household should get for the land transaction, if a household complains, they will receive the other 50 percent; secondly, the company will arrange a land certificate for the households' land, so they are able to sell it to the company (the certification costs will be cut off from total land price)¹¹⁷.

The empirical data has made clear that these strategies are not working in practice. Despite the poor effect of the demonstrations, some people of Tanjung Isuy might think they could change the plans of a possible new oil palm plantation of PT Delta Utama Resources (Southwest of Jempang Lake). The former village headman of Tanjung Isuy, the *Kepala Adat* (community leader) and villagers of Tanjung Isuy made a petition with signatures to show their disagreement with the opening of the new plantation, and sent it to several governmental bodies in the hope to prevent PT Delta Resources to open a new oil palm plantation¹¹⁸. The village headman of Muara Ohong mentioned a meeting - with all seven village headmen around Jempang Lake and PT Delta Utama Resources - to discuss the plan to establish 11,080 hectares of oil palm plantation in the area. According to the village head of Muara Ohong, he stated during the discussion that he was against the plan, but by saying this, the discussion was over¹¹⁹. After this meeting, a representative of the palm oil company visited the house of the village head to convince him with "a very tempting offer". Although the village head made clear that he never would accept more companies in this area; the representative had another opinion: "I will find other ways to get the permit". In fact, the company needs an agreement with signatures from a majority of the seven village heads in *kecamatan* Jempang. At the same time, the majority is against the new oil palm plantation, so the company is trying to convince these heads. For the village headman of Muara Ohong, it is a sad and frustrating situation; the possibilities to do something are limited and the problem is that he is afraid that he has to fight the palm oil companies and the government as well¹²⁰.

This train of thought is not farfetched at all; according to the *Camat*, there are no negative consequences related to oil palm plantations. In fact, he is just rejecting all the mentioned households' problems in Tanjung Isuy and Muara Ohong with illogical and absurd arguments. An example: the area of new oil palm plantations (including PT Delta Utama Resources) is not used by anyone and "the government cannot do anything with these areas; these are swamps". For the *Camat*, palm oil companies are always welcome and he will give them their necessary permit eagerly¹²¹. Not surprisingly, the chairman of GAPKI also denied all the problems related to water degradation through the use of pesticides and fertilizers, or the increasing floods and dry periods caused by the deforestation and oil palm conversion. Our research data are, according to him, totally wrong. He does not know and does not believe there is a relation between environmental degradation and oil palm plantations. The mentioned problems in our research villages could be caused by the intolerance of local

¹¹⁷ Resp. 80, 24 June 2010 (private oil palm plantation owner).

¹¹⁸ Former village headman Tanjung Isuy, 25 July 2010.

¹¹⁹ Village headman Muara Ohong, 9 May 2010.

¹²⁰ Village headman Muara Ohong, 26 June 2010.

¹²¹ Camat Jempang, 19 June 2010.

communities and the use of poison as a fishing method. Above all, the chairman emphasises the point that we clearly have to make a distinction between ‘good’ and ‘bad’ companies; if all plantations are working according the governmental regulations, there would not be an environmental problem. Plantations have to adopt precautionary measures to limit the environmental impacts. Measures like water canals or drains and groundcovers should provide protection from erosion and drought and reduce the current of the (polluted) water; to limit the environmental impact. However, only ‘good’ companies are taking these measures; LonSum is definitely a ‘good’ company¹²². Theoretically, the governmental regulations are quite good, but the implementation is bad. The problem is that the government values economic goals more than environmental or social goals; there is a lot of corruption in East Kalimantan¹²³.

The difference in perception and related discourse of each actor is probably the main explanation for negative or undesirable developments in the field. A perfect example is the different interpretation of the term ‘sustainable’, in general it is related to the sustainability of the environment, but according to an important person in the palm oil sector, palm oil as such is already sustainable: “palm oil as biofuel is a sustainable resource, it is renewable energy; there’s a future for oil palm plantations, in fact, palm oil is the future”¹²⁴. Stated differently, financial and economic sustainability was actually his definition of sustainable. Even the definition of environmental sustainable is variable: “oil palm plantations are good for the environment; they remove the current forest but replant it with a different kind of forest”¹²⁵. Additionally, the establishment of oil palm plantations should not be considered an easy and short term investment. It is a different kind of activity compared to mining; it needs expensive investments to clear the land and establish the plantation. Besides, oil palms need at least 3 to 4 years, before they become productive¹²⁶. The oil palms can be used for 25 years; then the trees lose their productivity. In this space of time, it is possible to harvest the seeds from oil palms every month; after one year they already earn back the total amount of investments¹²⁷.

7.2. ECONOMIC CAPITAL

The capital analysis of LonSum will start with the economic capital. Firstly, LonSums’ financial situation in the previous years, the current situation, and expectations for the future will be described. Followed by the access to land, the permit allocation process for palm oil companies, and the employment policy. Social and cultural capital will be discussed combinedly, since these elements were relatively less important in the power structure analysis of *kecamatan* Jempang. Herewith, the network of the palm oil sector itself and the relation with governmental bodies, including the external communication and information delivery, will be central topics. For now, I shall begin with the unravelment of economic capital.

The palm oil business in Indonesia is a fast growing economic sector: with a 30

¹²² Chairmain GAPKI, 21 July 2010.

¹²³ Oil palm plantation owner (former head of East Kalimantan Plantation Agency), 28 April 2010 (personal communication).

¹²⁴ Oil palm plantation owner, former head of East Kalimantan Plantation Agency, former government official forestry department, 28 April 2010.

¹²⁵ Resp. 80, 24 June 2010 (private oil palm plantation owner).

¹²⁶ Chairmain GAPKI, 21 July 2010.

¹²⁷ Resp. 80, 24 June 2010 (private oil palm plantation owner).

percent world market share and an export value of \$1.4 billion it is seen as a way to gain state income. Profits are assured by a short growth cycle, cheap labour, low-priced land, a lack of effective environmental controls, and easy availability of finance (de Bruin, 2004). Before the 1997 economic crisis, LonSum was considered to be one of Indonesia's leading private plantation companies and registered record profits (Tripathi 1998). Meanwhile, LonSum began to experience considerable financial problems. In fact, 1997 marked the first year in which LonSum's growth in net profit actually declined. This negative financial situation continued in the following years. Consequently, LonSum began to find it difficult to meet its loan repayments and was forced into a debt-restructuring programme. In 2000, LonSum decided to stop temporarily all planting operations in Kutai Barat due to a lack of funding. Naturally, this had also its impact on the village community; local people lost their land to an unproductive oil palm plantation and at the same time, they lost any employment opportunities being offered by the company. Many had also joined the company's Plasma programme in which they had been promised two hectares of oil palm estate (Casson, 2001).

At the moment, LonSums' financial situation is rather stable; all oil palm plantations in Kutai Barat are operative, although the Plasma programme never got off the ground. The financial facts are - with a constantly growing net income of Rp.303.105 million (\$35 million) in 2006 to Rp.1.033.329 million (\$120 million) in 2010 – very positive. The total current assets rose to Rp.1.49 trillion (\$173 million) in 2010. In 2010, the company continued to experience global economic recovery, led by strong growth among the emerging economies in Asia. Within Indonesia, it experienced a considerable economy expansion to 6.1 percent compared to 4.5 percent in 2009. During the year, the price of palm oil continued to appreciate driven by a combination of a strong demand and tight supplies due to unfavourable weather condition (the CPO¹²⁸ price was almost reaching the highest level recorded during 2008). The company financial expectations for the future are optimistic; the positive economic condition is expected to continue, especially the given growing affluence of China and India. Domestic consumption of palm oil related products will also continue to increase, fuelled both by Indonesia's large population and rising income expenditure (PT PP London Sumatra Indonesia Tbk, 2010a).

7.2.1. LAND AND PERMIT ALLOCATION PROCESS

In 1995, when LonSum consulted the local government in Kutai Barat to establish oil palm plantations, it intended to only convert the dry forest land and sleeping land, caused by the forest fires in 1982-1983, into plantations¹²⁹. In practice, oil palms were not only planted on wasteland, but on cultivated and thus productive land as well. Forest gardens were cleared or burnt and converted to plantation land (Gönner, Cahyat, Haug, Limberg, 2007). Many households in Tanjung Isuy and Muara Ohong considered the permit allocation procedure as rather meaningless; the responsible governmental officials appear to be blinded by the money. Nonetheless, respondents related to the palm oil sector had a whole different opinion. The whole permit allocation procedure seems to be extremely complex, time-consuming, and

¹²⁸ Crude Palm Oil.

¹²⁹ Former village headman Tanjung Isuy, 25 July 2010.

bureaucratic. In some cases, it takes even five years to open an oil palm plantation¹³⁰. The *Kabupaten* is the most important governmental layer in the whole permit allocation process; it is responsible for the team¹³¹ that checks the location and condition of the intended plantation land and it issues the final permits as well. However, during the procedure, the local government (village head and *Camat*) is the first governmental layer that has to approve the company's plans. Important elements during the governmental assessment are the type of land, the involved landowners and the borders of their land, and the environmental impact.

The different types of land are essential for the permit allocation: forest land creates more procedural obstacles, compared to non-forest land. Furthermore, the type of land and the related plant species and their age are influencing the price of the land. If there is any communal land or private land involved, the palm oil company should discuss this with the village community and related land owners¹³². An important aspect of the land permit allocation procedure is *Hak Guna Usaha* (HGU), the Right of Cultivation. Palm oil companies have to obtain this right to exploit land for agriculture purposes. It concerns land that actually belongs to the Indonesian state, and has to be used for the prosperity of the people of Indonesia. The regulation to obtain HGU states that all people of residents that will be affected by the changing land use – because they used to use the land for cultivation or as forest garden for example – have to sign first, stating that they agree with the opening of a new site¹³³. Unfortunately, this form of legal power for village communities and private landowners to prevent the establishment of oil palm plantations is useless in reality. LonSum received the *Hak Guna Usaha* in 2004; even without HGU it seems to be possible to open an oil palm estate¹³⁴ (Casson, 2001). There are two problems with this law: firstly, there is a possibility to manipulate and bypass this law¹³⁵. Secondly, communal land or other private land without an official land certificate has in fact no legal value. The government and the palm oil companies can easily confiscate these lands. Only the land which belongs to the villagers with a land certificate can be sold to a company. Without certificate, land owners cannot claim their land. The government should formally recognise and declare the *adat* land in question, but this almost never the case¹³⁶. One of the last significant procedural steps during the permit allocation procedure is the environmental impact assessment (AMDAL); a consultant has to investigate the environmental impact on the specific area. If the AMDAL is not corresponding with reality, the company can be shut down. Because everybody is allowed to retrieve this document, it can be considered as a strong weapon for village communities and NGOs¹³⁷.

Specifically, in some cases, pulp and paper producers and palm oil companies are often part of the same conglomerate. This means that companies can gain maximum profit

¹³⁰ Oil palm plantation owner (former head of East Kalimantan Plantation Agency), 28 April 2010 (personal communication); chairmain GAPKI, 21 July 2010.

¹³¹ Team consists of the landowner, the palm oil company, village head, Camat, government official of Kabupaten, and the police.

¹³² Chairmain GAPKI, 21 July 2010.

¹³³ YK-RASI, 17 May 2010.

¹³⁴ Former village headman Tanjung Isuy, 25 May 2010; resp. 75, 22 June 2010; resp. 83, 24 June 2010;

¹³⁵ Governmental officials have access to ID-cards and other usable documents, in some cases they organised meetings where villagers had to sign (blank) contracts (personal communication with assistants, 16 May 2010; YK-RASI, 17 May 2010).

¹³⁶ YK-RASI, 17 May 2010; former village headman Tanjung Isuy, 25 May 2010;

¹³⁷ Vice-director provincial forestry department, 10 June 2010.

from timber before planting the oil palm. Companies affiliated with these groups have used land clearing permits to clear degraded natural forests from sites allocated for oil palm development, without subsequently planting those areas (WWF, 2008). This development can be explained by the fact that it is easier to obtain a land clearing permit than a logging permit, therefore, some investors use oil palm as a means to gain access to timber (Casson et al., 2007). The palm oil industry itself is complaining about this negative development as well, because it is damaging their reputation. According to the chairman of GAPKI, there are in total 397 oil palm plantations in East-Kalimantan, but only 90 are active. The other plantations are not real oil palm plantations; these are owned by brokers who want the land (including permit) for the lowest price, to sell it to other investors or obtain only the logs¹³⁸. From million of hectares of location licenses released in East Kalimantan, only 8 percent was eventually turned into a plantation by the license owner¹³⁹.

The last important topic related to the land permit allocation procedure is the power of the provincial zonation mapping. The zonation planning of East Kalimantan provides information about the different types of land and the related land use; it selects the areas which can be used for economic development (non-forest areas). It is made by the province and districts, but the central government has to approve the zonation map. The whole procedure alone takes five years; the central government rejected the first zonation map, caused by the excessive non-forest area. When the central government approves the land use map, it is active for the coming 15 years. Only then, the government (especially provincial and central government) will be able to check the legality of the permits and land use. This procedure is a typical example of the power struggle - initiated by the decentralisation - between the central government and other governmental layers. To clarify, the districts itself proposes the amount of non-forest areas; the province only collects the data. The districts used their power to extend the non-forest areas, to use them for economic activities¹⁴⁰. This also counts for *kabupaten* Kutai Barat and *kecamatan* Jempang as well, although it is not in accordance with reality, the area covers almost only non-forest zones. Stated differently, the current provincial zonation map could have a disastrous impact for the future environment and population. Another example of the power of mapping is the land use map of PT Delta Utama Resources. This land use map of *kecamatan* Jempang is not in accordance with reality either: the agriculture land of villagers in Tanjung Isuy and surroundings is not visible. Moreover, the main part of the area is defined as sleeping land (secondary forest and dry secondary forest). This particular categorisation could have a huge impact on the land-permit procedure; without official forested areas, actively used agriculture land or certificated land, the chances to receive a permit will increase considerably¹⁴¹.

7.2.2. EMPLOYMENT POLICY

The last topic regarding the palm oil company's economic capital is the employment policy. Proponents of the palm oil sector claim that plantations are a solution to unemployment problems. During the empirical analysis of the households' economic capital, the data did not

¹³⁸ Chairmain GAPKI, 21 July 2010.

¹³⁹ Head of East Kalimantan Plantation Agency, 22 October 2003.

<http://www.kompas.com/kompas-cetak/0310/22/daerah/639670.html>

¹⁴⁰ Vice-director provincial forestry department, 10 June 2010.

¹⁴¹ Village headman Muara Ohong, 26 June 2010.

confirm this claim. Only a few households were financially dependent on the employment possibilities of the palm oil companies; in general the households in the research villages did not benefit from the established plantations, neither in respect of financial support nor in respect of employment. What could be an explanation for this observation? A combination of scientific literature and empirical data can offer us more information. Various NGOs reported significant erosion of local culture and institutions; palm oil companies often engage community leaders individually so as to undermine community cohesion and united opposition. Therefore, palm oil companies often hire staff, migrant workers, from other parts of the country, mainly Java, Sumatra or Sulawesi, where farming communities have long traditions of primarily growing single crops (Gönnér, Cahyat, Haug, Limberg, 2007; Sheil et al., 2009). In *kecamatan* Jempang this is also the case: “companies never attract local workers because of the low education of the people in Tanjung Isuy and surroundings”. In fact, this is merely an excuse to reduce salary costs; migrant workers from outside this region (Java, Timor) work for a lower salary¹⁴². The village headman of Tanjung Isuy and other households also stressed the temporary character of the employment. Tanjung Isuy experienced a rapid population growth in the period when LonSum established plantations; daily workers were needed to clear the land and plant the oil palms. Nowadays, the intensive labour period is over and the people who still work on the oil palm plantations are chiefly people from Java who are willing to work for relatively low salaries. These people generally inhabit a house on the plantation base camp, outside the village¹⁴³. It appears that during the severe financial situation of LonSum, they have changed their employment policy drastically to cut down its expenses. In the beginning the company did hire local people, but suddenly, the local workers lost their job and migrant workers were taking over their job¹⁴⁴.

7.3. SOCIAL AND CULTURAL CAPITAL

Finally, we have reached the end of the palm oil companies’ capital. Social and cultural capital will be discussed combinedly, since these elements were relatively less important in the power structure of the sub-district of Jempang. Obviously, economic capital is the most important form of capital for palm oil plantations. The dominance of economic capital has considerable influence in social and cultural capital. Firstly, the social resources in the form of networks and contacts based on relationships of mutual acquaintance and recognition have existed for a long time between palm oil companies and governmental bodies. In the mid-1990s, LonSum became an Indonesian company publicly listed on the Jakarta and Surabaya stock exchanges. Shareholders in the company included a number of prominent Indonesians with close connections to the Suharto family (Casson, 2001).

Even at present, the close cooperation and relationship between palm oil companies and governmental officials, which is based on the financial advantages, has been obvious. Not only households in Tanjung Isuy and Muara Ohong ascertained these strong networks and contacts, but the palm oil sector itself admits it as well (Casson, 2001). Not all palm oil related respondents mentioned it explicitly, but the financial support towards the government in form of compensation payments is well known. One respondent stated that the *Bupati*

¹⁴² Resp. 31, 19 May 2010; resp. 70, 22 June 2010.

¹⁴³ Village headman Tanjung Isuy, 7 May 2010.

¹⁴⁴ Resp. 2, 8 May 2010; resp. 29, 18 May 2010.

always invites him for meetings, explained by the fact that he is giving financial support to the *Kecamatan*. He is aware of the fact that his money will not reach the villagers and ends up in the pockets of governmental officials in the *Kecamatan*, but he simply does not care: it is a method to make and keep some politically connected friends. Also, the obtainment of the necessary permit was not rather difficult; he gave the government some extra money, merely as a friendly gesture¹⁴⁵. These financial flows are definitely smoothing the relation between these two actors, however, this does not mean that the money should lead to bad or corrupt governance¹⁴⁶. In cases of land conflicts or ‘bad’ companies (the brokers), the government should fulfil their duty and do their job properly. “Before the government agrees to a plantation area, they should make an agreement. If the company isn’t able to fulfil this agreement, the government should introduce sanctions and penalties. But what’s happening now, oil palm plantations aren’t afraid at all. Sometimes the government isn’t acting at all when companies are not working according to the regulations”¹⁴⁷. Indeed, the village head of Tanjung Isuy and the *Camat* did not think about good governance; the most important fact was the economic development and the financial support that palm oil companies could bring. “Companies contribute lots of money to the governmental income in this *Kecamatan*. Money from the central government is not enough to fulfil all the primary needs like infrastructure. There are 228 villages in Kutai Barat, so the government needs support from private companies”¹⁴⁸. This is remarkable, even the financial support from palm oil companies in the last 15 years could not improve the infrastructure properly in *kecamatan* Jempang. It seems there is only one conclusion; infrastructure or other public issues were not considered primary needs; personal greed was the primary issue. In my opinion, self-enrichment has never been and never will be a primary need.

Beyond the existing networks between palm oil plantations and governmental bodies, the palm oil sector itself seems to also have a stable network. Firstly, the people who are involved in this business can be considered the elite; their financial situation is, especially in the Indonesian context, extremely good. Consequently, they can afford a proper education. Thus, the level of cultural capital is considerable. Therefore, palm oil companies are in general rather well organised, the Indonesian Palm Oil Association (GAPKI) and Roundtable on Sustainable Palm Oil (RSPO) are two examples of institutionalised networks. Moreover, small oil palm plantation owners have to cooperate with the larger companies, to use the factory for processing the oil palm seeds into palm oil. In some cases, the relation between these actors is even closer; LonSum lent a big amount of money from a small oil plantation owner in Tanjung Isuy¹⁴⁹.

Despite the good social networks of palm oil companies and the high education level of their employees, they did not provide enough information about their plans and activities in *kecamatan* Jempang. They created a lot of indistinctness in the area among households and local governmental officials, caused by unclear communication and contradictory messages, which led to empty promises. The communication and information delivery towards the

¹⁴⁵ Resp. 80, 24 June 2010 (private oil palm plantation owner).

¹⁴⁶ Oil palm plantation owner (former head of East Kalimantan Plantation Agency), 28 April 2010 (personal communication).

¹⁴⁷ Chairmain GAPKI, 21 July 2010.

¹⁴⁸ Camat Jempang, 19 June 2010.

¹⁴⁹ Resp. 80, 24 June 2010 (private oil palm plantation owner).

village community can be considered poor. A possible explanation for these problems could be the fast expansion of this sector and, therefore, the lack of well trained employees who are making mistakes. In other words, a management problem¹⁵⁰. The lack of clear and proper communication and information delivery is also mentioned in scientific literature: “often local people, and even local political representatives, are not well informed and are easily duped into believing oil palms will grow and provide high returns in unsuitable areas. Better information about issues and choices would help communities assess the propaganda put out by investors” (Sheil, et al., 2009, p. 39).

7.4. SUMMARY AND CONCLUDING COMMENTS

The sustainable image of LonSum that the company is trying to create stands in sharp contrast to the empirical data. People from the palm oil sector and local politicians consider the environment mostly something that should be tamed by economic development. In effect, the discrepancy between the policy image and the reality is a perfect example of green washing. Beyond environmental degradation, the conflicts with local communities were probably grounded in the financial problems of the company since the economic crisis in 1997, just after finishing the oil palm plantations in the sub-district of Jempang. Many financial agreements, made with the government and citizens, could not be fulfilled. According to the palm oil sector, social conflicts were explained by miscommunications caused by the low education of citizens, intern family conflicts, and their lack of financial management. After 2000, when the financial situation of LonSum became much more stable, none of the profits were used to realise the promises and agreements as yet. Moreover, in some cases there was no agreement at all and LonSum just took the land without any communication and agreement. Normally, these activities cannot be accepted by law. However, no support of the government or the police has been given; they would not even listen to the acquisitions of the citizens. Demonstrations were ended by the local authorities and even put villagers in jail for several months.

Even if the local authorities would pay attention to land related conflicts, the citizens without an official land certificate occupy an extremely weak position. Since the *reformasi* and the new forestry legislation, local communities consider *adat* as a legal source for legitimizing land reclaiming. In reality, *adat* land certification is useless. Also, the Right of Cultivation (HGU) should be considered as an important tool for citizens to use it against oil palm plantations plans. Unfortunately, this form of legal power for village communities and private landowners to prevent the establishment of oil palm plantations is in reality worthless. LonSum received the HGU in 2004; eight years too late. The last procedural step that can be used to influence the decision-making process regarding oil palm plantations is the AMDAL. Everybody is allowed to retrieve this document, so they can compare the environmental impact on paper to the reality in the area. Despite LonSum’s commitment to the company’s responsibility towards the environment and the local community (as essential stakeholders), the surrounding citizens were not informed at all. The information provision from the palm oil companies and government officials towards the citizens remains miserable. Therefore, many incomprehensive and various contrary stories were told by respondents. Even local political representatives are not well informed and are easily duped into believing only the financial

¹⁵⁰ Chairmain GAPKI, 21 July 2010.

advantages. The necessary countervailing power of citizens was taken out of the whole decision making and policy process. Without a countervailing power and with the strong support of the government and local authorities, palm oil companies occupied an extremely dominant position.

In combination with bad governance and the lack of governmental powers to control the legality of LonSum's activities, it created a socially and environmentally degrading and unpredictable situation. In addition, the time-consuming decision making processes between the central government and local governmental layers created even more difficulties for land management and related permits for palm oil companies. During the creation of the provincial zonation map, the districts used their power to extend the non-forest areas, to use them for economic activities. Palm oil companies were using non-forest land types in their oil palm plantation reports as well. An example is the case of PT. Delta, where agriculture, secondary forest, and swamp forest were mapped out as non-forest; the map was not corresponding to the reality. In other words, palm oil companies (ab)use the land categorisation and power of mapping for their own advantage: by using other land use categorisations in their proposal, they try to bypass difficulties relating to the permit allocation process; for example the logging permits, HGU, and AMDAL. This strategy can be explained by the fact that it is easier to obtain a land clearing permit than a logging permit, therefore, some investors use oil palm as a means to gain access to timber. The palm oil industry itself is complaining about this negative development as well; it is damaging their reputation. In the end, it remains difficult to know when a palm oil company has the genuine motivation to establish a plantation or just use the received permit to extract wood. Moreover, the lack of governmental supervision with relation to the palm oil companies' performances creates a situation where bad performances of companies seem to be 'normalised'. Not only for the environment and citizens, but for the palm oil sector as well, it would be necessary to make a clear distinction between 'good' and 'bad' palm oil companies. The government is the only institute that has the power to control and penalise the companies that cross legal boundaries. The improvement in transparency, public communication, inspections concerning performances and related reports, is not only applicable to the relation between palm oil companies and government, but for the government itself as well: irrational decision-making and corruption cuts both ways. Indeed, palm oil companies need the support from the government to get the necessary permits, but governmental support is often already assured; regarding money this cannot be the question anymore.

At first sight, the law system of Indonesia can be easily categorised as a legal pluralist system; where neither all law is state law nor administered by state institutions. Instead, by acknowledging *adat* law, which is a dynamic and context dependent law system, it means the co-existence of legal orders in a social setting which do not belong to a single system. Even though, in the case of land-permit allocation of an oil palm plantation, *adat* law has in fact no power at all; only the official - too state-centred - law system is in force; which could be compared with the weak legal pluralist system. Paradoxically enough, the one official state law itself is in practice rather flexible. The powerful economic power position of palm oil companies, not only on financial and economic terms, but also the good relations with governmental bodies, the institutionalised network and the juridical knowledge make them cross legal boundaries at all costs, to extend their economic activity. In general, local

governments are pleased with palm oil companies and are ignorant about the social and environmental impact. Local government is lacking proper knowledge concerning environmental impacts, but also institutional power in general. The insufficient capacity of the governmental staff on the district level, caused by the overwhelming application of permits, was a big problem to manage the whole procedure properly (Casson, 2001). In addition, given the generally poor monitoring capacity of district governments, forest conversion can 'overflow' into areas outside the specific delineated permit zone (Aspinall & Fealy, 2003). This in combination with corruption/ nepotism makes decision making processes and policy outcomes irrational and non-balanced. So in fact, there is a legal pluralist system, but only for actors that can bring financial input and economic growth. Ironically, citizens are not profiting directly nor indirectly from palm oil companies. The amount of labour is limited, and local villagers are considered too expensive.

The present high profits of LonSum make it possible to establish an environmentally and socially friendly image. The commitment to the RSPO principles could be an indicator for optimistic future developments and policy changes of oil palm plantations in the sub-district of Jempang. Realistically, the chances for change, initiated by the palm oil company itself, seem to be small. People related to the palm oil sector, were mainly denying the connection with environmental problems. According official regulation, oil palm plantations should contain certain counter measures to prevent soil erosion, a disturbed water regulation system and the spread of fertilizers and pesticides in the water system. We have noticed these measures in the oil palm plantations, but these measures are clearly not sufficient enough to obtain their goal. Considerably, palm oil production, even when well managed, has a significant environmental impact simply because of its scale (Sheil et al., 2009). Besides, palm oil companies apply large quantities of nitrogen-based fertilisers in order to increase and maintain yields. This appears to increase eutrophication in neighbouring water systems and wetlands affected by runoff. Pesticides and herbicides also increase pollution, especially with repeated use (Kittikun, 2000; Hartemink, 2005). Obviously, economic capital is the most important form of capital for palm oil plantations. The dominance of economic capital has considerable influence on social and cultural capital. Firstly, the social resources in the form of networks and contacts based on relationships of mutual acquaintance and recognition have been existing for a long time between palm oil companies and governmental bodies. Even at present, the close cooperation and relationship between palm oil companies and governmental officials, which is based on the financial advantages, is obvious. It is a strategy to make and keep some politically connected friends and in other cases it is used for speeding up the permit allocation process. These financial flows are definitely smoothing the relation between these two actors, however, this does not mean that the money should lead to bad governance.

8. CONCLUSION AND RECOMMENDATIONS

This last chapter presents an overview of the main findings of this research, which are based on the former three empirical chapters. In this chapter, answers on the main research question, including the first and second sub-question, will be given. The third sub-question will be discussed in paragraph 8.3: Recommendations for local practices and the policy field. Furthermore, during the discussion (paragraph 8.2) the results will be put in broader understandings, supported by a brief reflection on the literature and used theories.

8.1. REVIEW OF THE MAIN FINDINGS

Citizens in the sub-district of Jempang noticed considerable environmental degradation in the last 20 years. The main environmental issues can be reduced to land and water related changes. Concerning the changes on the land, the high extent of deforestation in the area seems to cause extreme fluctuations in water level and high sedimentation rates, which disturbs the water regulation system in *kecamatan* Jempang. It appears that the forest conversion also increased the temperatures in the area. Moreover, households saw their land and forest gardens being converted, and provisioning services – fruits, vegetables, and wood - disappeared. The villagers mostly blame the palm oil companies, but the mining and logging companies as well, for the deforestation in the area. The biggest change related to water is the decreasing water quality. Water measurements confirm the acidness of the water; akin to swamp conditions, with very low oxygen levels. Moreover, the exceeding levels of ammonium and phosphor that are derived from domestic and agricultural waste, make clear that two actors are responsible for these changes: citizens themselves and palm oil companies. The non-existence of waste management in the villages and the chemical fertilizers and pesticides of oil palm plantations are affecting the water quality. The water system is weighed down by the eutrophication process and changes the MMA into swampy conditions. The combination of the pollution and eutrophication process is causing the reduction of fish resources, especially the fish population. The decreasing fish population is also a result of the increasing number of fishermen and the use of unsustainable fishing techniques. In addition, the results of water quality measurements were not directly dangerous for people. Still, people experience physical problems when using the water. Remarkably enough, the government does not notice the environmental problems or does not respond with adequate measures and solutions.

The analysis of the empirical data through the use of the logic of fields revealed the general weak power position of citizens in *kecamatan* Jempang, which mainly originates from their economic capital that influences social and cultural capital as well. Their weak power position limits the possible strategies for citizens to react on and adapt to the changes concerning the power structures and environment. Especially Muara Ohong occupies a weak power position. As a fishing community, the households' sources of income are not varied and are strongly dependent on the condition of the environment; environmental degradation affects the households' income and socio-economic status. A dominant strategy for fishing communities, as a response to the decreasing environment in order to stabilise their income, is to mainly financially depend on fish farming. Still, a considerable number of households in

Muara Ohong faces difficulties to provide in primary needs. Furthermore, the isolated location of the village is a financial burden for the households and hinders the population to improve their power position. Besides, the lack of available land makes it difficult for this village to yield enough power during decision making processes related to oil palm plantations in the area. For the villagers itself it means a lack of extra income and additional food supply. The power position of villagers Tanjung Isuy, a community which mainly depends on agricultural activities, seems to be less fragile. A combination of more diversified sources of income, less dependency on aquatic resources and the increase in government related functions made households face less socio-economic burdens as result of changes in their environment. Although agriculture as a main income is decreasing, rubber as a cash crop remains an important source of income. The decentralisation has had a positive impact on economic capital of Tanjung Isuy; it increased the socio-economic status of several households by governmental jobs and created business opportunities. A majority of the households rate their income as enough to provide the household with primary needs.

Remarkably enough, only a few households in Tanjung Isuy receive their income from palm oil companies. In general, the amount of labour is limited, and local villagers are considered too expensive. In Tanjung Isuy, the environmental problems are overshadowed by issues concerning land ownership. Since the arrival of PT LonSum, access to and the existence of forest gardens and private land changed negatively. Conflicts occurred when LonSum could not fulfil the agreements concerning the payment of land transactions and the provision of jobs, which were made with the government and citizens. Moreover, in some cases there was no agreement at all and LonSum simply took the land without any communication and agreement. Demonstrations were ended by the local authorities and they even put villagers in jail for several months. The conflicts with local communities were probably grounded in the financial problems of the company since the economic crisis in 1997. According to the palm oil sector, social conflicts were explained by miscommunications caused by the low education of citizens, intern family conflicts, and their lack of financial management. Another indirect consequence in Tanjung Isuy is the problematic access to and the lack of fruits, vegetables and wood. At the same time, Tanjung Isuy did not react to this development; they could grow more vegetables and fruits in several ways, but they were not able to adapt their strategy. However, the necessary permit in order to use forest products limited the possibilities to empower themselves through the use of natural resources. Importantly, citizens without an official land certificate occupy an extremely weak position; *adat* certification does count between villagers, but regarding dominant economic players it is useless. Not everyone in Tanjung Isuy realises this or they simply do not have the money for the whole certification procedure. Since the *reformasi*, local communities consider *adat* as a legal source for legitimizing land reclaiming. The HGU should be considered as an important tool to yield power towards oil palm plantations plans as well. Unfortunately, this form of legal power for village communities and private landowners is in reality worthless. The last procedural step that can be used to influence the decision-making process regarding oil palm plantations is the AMDAL. Everybody is allowed to retrieve this document, so they can compare the environmental impact on paper to the reality in the area. Without sufficient social and cultural capital, it is difficult to use this form of power.

Not only economic capital determines the influence of citizens towards local

governance and the performance of companies, but their social and cultural capital as well. These two forms of capital could create more environmental awareness and the possibilities to empower the community and make them more able to change other actors' strategies and the possibility to adapt their own strategy. The extent of social organisations and collective action in the area is moderate and the civil society is not well developed. However, in Tanjung Isuy there were more small groups constituted related to religion, education or village events. Differences in cultural capital are obvious; a huge majority of the households in Muara Ohong only finished elementary school, in contrast to households in Tanjung Isuy that finished high school. The most important explanation for this discrepancy probably lies in the extent of accessibility to education and the presence of public facilities. The lack of governmental facilities and support in general, prevents the development of the citizens' social and cultural capital, which is weakening their power position. Furthermore, the isolated location of the research villages and the lack of proper infrastructure literally limits the citizens' room for manoeuvre.

The isolated location and small population also creates more difficulties for the government to provide certain facilities. An even more important cause for the lack of governmental facilities and action concerning (land) conflicts, environmental problems, and negative performances of companies, is bad local governance. This refers to a poor monitoring capacity, the lack of governmental powers to control the legality of activities, the lack of transparency during decision-making processes, and the inability to implement and maintain governmental policy. In addition, the time-consuming decision making processes between the central government and local governmental layers created even more difficulties for land management and related permits for palm oil companies. During the creation of the provincial zonation map, the districts used their power to extend the non-forest areas, to use them for economic activities. Palm oil companies were using non-forest land types in their reports as well; they (ab)use the land categorisation and power of mapping for their own advantage. Through the use of other land categories in their proposal, they tried to bypass difficulties relating to the permit allocation process; for example the logging permits, HGU, and AMDAL. This strategy can be explained by the fact that it is easier to obtain a land clearing permit than a logging permit, therefore, some investors use oil palm as a means to gain access to timber. Additionally, given the generally poor monitoring capacity of district governments, forest conversion can 'overflow' into areas outside the specific delineated permit zone. The palm oil industry itself complains about this negative development as well; it is damaging their reputation. In the end, it remains difficult to know whether a palm oil company has the genuine motivation to establish a plantation or simply uses the received permit to extract wood. Moreover, the lack of governmental supervision with relation to the palm oil companies' performances can create a situation where bad performances of companies seem to be 'normalised'. Not only for the environment and citizens, but for the palm oil sector as well, it is necessary to make a clear distinction between 'good' and 'bad' palm oil companies. The government is the only authority that has the power to control and penalise the companies that cross legal boundaries. The improvement in transparency, public communication, inspections concerning performances and related reports, is not only applicable to the relation between palm oil companies and government, but to the government itself as well: irrational decision-making and corruption cuts both ways. Indeed, palm oil

companies need the support from the government to get the necessary permits, but governmental support is often already assured; regarding money this cannot be the question anymore. Instead of using the financial support for the development of *kecamatan* Jempang, it mostly ends up in the pockets of local politician. Obviously, a majority of the citizens consider the local government untrustworthy and blame them for the injustice in their village. The palm oil companies have a bad image and cause problems in the field as well, but in daily life, the government causes more structural problems; especially the disappointments and broken promises from politicians and political parties are bothering people.

At first sight, the law system of Indonesia should be categorised as a legal pluralist system; by acknowledging *adat* law it means the co-existence of legal orders in a social setting which do not belong to a single system. Even though, in the case of land-permit allocation, *adat* law has in fact no power at all; only the official state law system is in force; which could be compared to a weak legal pluralist system. Ambivalently enough, the official state law itself is in practice rather flexible. The powerful economic power position of palm oil companies, not only on financial and economic terms, but also the good relations with governmental bodies, the institutionalised network and the juridical knowledge make them cross legal boundaries. In general, local governments are pleased with palm oil companies and are ignorant about the social and environmental impact. Both actors consider the environment mostly something that should be tamed by economic development and the relation between environmental problems and oil palm plantations was simply denied. Besides, local government is lacking proper knowledge concerning environmental impacts, but also institutional power in general. Even local political representatives, are not well-informed and are easily duped into believing only the financial advantages. The information provision from the palm oil companies and government officials towards the citizens is miserable as well. In general, the public communication and transparency of local governance should be better. Meetings and discussions should have a more open character, wherein all citizens can discuss decisions and policy. Even more importantly, local leaders could also improve the social cohesion to create active and committed community members. In the current situation, the necessary countervailing power of citizens was taken out of the whole decision making and policy process. Without a countervailing power and with the strong support of the government and local authorities, palm oil companies occupy an extremely dominant position in the area. In combination with corruption, it makes decision making processes and policy outcomes irrational and non-balanced. So in fact, there is a legal pluralist system, but only for actors that can bring financial input and economic growth.

In this study, a socio-economic and political empirical analysis by means of the concepts of the logic fields has revealed the considerable environmental impact of palm oil companies and to a lesser extent the activities of citizens, in the sub-district of Jempang. The power position of citizens can be considered weak; mainly the state of their economic capital determines and limits the possible strategies to yield power, but it is also strongly related to their social and cultural capital as well. Palm oil companies not only caused environmental degradation, they also created a power shift and weaken the citizens' position. The relatively strong social and cultural capital of palm oil companies gives them considerably more power. However, this power is almost always grounded in economic capital. The influence of local government is significant: it does not react to environmental and social problems and the

support and provision of facilities towards citizens is poor, which hampers the empowerment of citizens. On the other hand, the local government supports palm oil companies and even makes possibilities for palm oil companies to cross legal boundaries, which creates a socially and environmentally degrading and unpredictable situation.

8.2. DISCUSSION

The theoretical framework that is carried by the logic of fields gave me the right tools to unravel and analyse the situation and the power position of the actors in the research area, in a realistic and holistic way. Noticeably, many research outcomes had striking similarities with the scientific literature in Chapter Four, which strengthens the reliability and validity of the results. Although, the complicatedness and extensiveness of the logic of fields made it sometimes difficult to make the correct connection with the empirical data and to process it in this thesis. Legal pluralism provided a theoretical perspective for explaining formal and informal rules in a specific law system. Although the huge gap between official law and law in practice and the complex, flexible and unclear rules are making it difficult to categorise Indonesia's law system in practice. The empirical results and the scientific literature make clear that all layers of the Indonesian government are obviously struggling to get used to the new democratic and decentralised system that was implemented after the New Order. The RAL itself was also seen as incomplete and imprecise, especially the different interpretations of decentralisation and misperceptions in identifying responsible actors created problems by the implementation. Many regional governments have promulgated their own regulations, based largely on local interests or concerns, instead of national law or the broader public interests. In this manner, they could generate local revenues from natural resources, without sufficient transparency and accountability; the community participation in local government is almost non-existent, caused by opaque and closed mechanisms of decision-making. Changes to strengthen regional authorities and increase provincial government, to become more able to deal with local governmental bodies that had a short-term orientation and were unprepared in terms of institutional, informational, and human resources, increased the power struggles even more. The arrival of dominant economic actors, such as palm oil companies, made it even more difficult to manage these activities and it even created possibilities for companies to take advantage of the unclear governmental policy and regulations. A crucial negative consequence of illegal activities and corruption that has characterised the government and palm oil companies, is the adverse effect on rational decision-making concerning land use and natural resource management in general. Land is clearly an extremely important form of economic capital in the field. The local government and palm oil companies appear to occupy the most powerful position concerning the access and the use of land. The apparent cooperation between these actors makes their position even more stable and dominant. Financial flows are definitely smoothing the relation between these two actors. However, this does not mean that money should lead to bad governance. Or does it?

According to the mental models, that describe the relationship between the three main institutions, the strong cooperation between state and market actors should always be avoided, because it could cause undesirable developments. Indeed, the theoretical body mentioned the possible drawbacks and the similarities between co-management and corporatism. In this case, the relationship between the state and market goes in the direction of corporatism. The

problematic consequences of a corporatist system in theory bear remarkable resemblances to the research results in the sub-district of Jempang. Firstly, the state may gain direct influence over market processes and this can never do good to the rationality of the market. Secondly, market actors could become more powerful by influencing the state, including decision-making processes. Thirdly, the combination of the strongest powers, state and market, within society could threaten the plural character of liberal-democratic society. The distribution of various centres of power is an essential element and an important guarantee for freedom in a society. Elements of another mental model, the indirect-responsibility model, which corresponds to the results in the research area, can be noticed as well. An important aspect of this model is the restricted responsibility of market actors for public problems, even if those problems originate in market processes. The state is seen as a representation of democracy; the citizens determine legislation in a true democracy, either directly or indirectly. Related to this perspective, the role of the civil society is nil. Electing administrators and public representatives is the only role allocated to civil society.

Stated differently, the relationships between state, market and civil society can be described as a combination between the indirect-responsibility model and the corporatist model. This combination in particular will clash with moral and ethical norms and values, because it causes many environmental and societal problems. As a result of these characteristics, the state has an almost exclusive responsibility for public issues and is the only institution that is in a position to change the limiting conditions. Therefore, the state should or will become a robust and enormous institute: the state should be powerful enough to carry out its tasks and control the market by means of limiting conditions. In fact, the Indonesian state is often unable to exercise its powers to the full to change these limiting conditions, in order to act responsible regarding public issues, and it is no longer geared towards the kind of management that is needed nowadays. In other words, it seems as if Indonesia needs another mental model that is able to react to complex global developments and solve public problems. A core characteristic of this direct responsibility model is that market actors should personally take a certain responsibility or use at least some of their freedom for dealing with public issues. The market should not be controlled exclusively by limiting its conditions by the state. Consequently, this will decrease the power and the responsibility of the state; it no longer has exclusive responsibility for public issues. This implies that market parties should consult and cooperate with the state in all phases of the policy process. The state's dependency on the market is of less significance if the fundamental institutions work together. This cooperation will probably lead to an environmental policy based on economic and environmental arguments; a more balanced policy. In this same system, civil society organisations should be empowered and become part of the consultations between state and market to interfere with the related policy development. The direct responsibility model provides several necessary elements that can be used in the policy recommendations (see below). Since Indonesia's political system is still in a transition process, not all elements of this model are realistic on the short-term, for example, the empowerment of civil society and shared responsibility remain a complex and lengthy topics. On the other hand, beyond environmental issues, big economic players already support the government financially or in other forms, in order to support public issues like infrastructure, education and healthcare. Thus, there is a form of shared responsibility, but not in relation with environmental degradation.

8.3. RECOMMENDATIONS FOR LOCAL PRACTICES AND THE POLICY FIELD

The analysed empirical data in the former chapters, in which the first two sub-questions were answered, and the foregoing discussion, create the basis for the last sub-question: “*What could make the future of the sub-district of Jempang more sustainable, regarding the power position of citizens and palm oil companies, including the role of local governance??*”. The recommendations will be categorised per actor, but some recommendations might be connected to other actors as well. For the sake of clarity I shall start with the actor that cause the biggest environmental impact and weakens the power position of citizens: the palm oil companies.

8.3.1. THE PALM OIL COMPANIES

The palm oil sector is contesting their negative environmental impact and is blaming the citizens for the occurred conflicts. Concerning the environmental impact, the perception of the citizens in *kecamatan* Jempang and the additional scientific results should be beyond dispute. The objective of this research is not to discredit palm oil companies, but to inform people about the (un-known) consequences and to make the management of the oil palm monoculture more open to disuccion and sustainable at the same time. Firstly, even if an oil palm plantation is well managed, it still has a significant environmental impact simply because of its scale (Sheil et al., 2009). Therefore, down-scaling of oil palm plantations should be a simple but effective solution. Secondly, the use of nitrogen-based fertilisers, pesticides and herbicides are polluting and degrading the environment. According to official regulation, oil palm plantations should contain certain countermeasures to prevent soil erosion, a disturbed water regulation system and the spread of fertilizers and pesticides in the water system. We have noticed these measures in the oil palm plantations of LonSum, but these measures are clearly not sufficient enough to obtain their goal. Sustainable alternatives should be developed and implemented. There is little chance that this will be initiated by the palm oil sector itself; the government has the perfect position to support this development. The Malaysian government already banned the use of the hazardous herbicide Paraquat despite its popularity with users—the palm oil industry has had to seek alternatives. Initial trials with Glyphosate suggest that it is safer (to people and the environment) and more effective for weed control (Wibawa et al., 2007). Thirdly, future oil palm projects will certainly need a much more balanced and participatory approach. Wherein different stakeholders from the state, market and civil society have a chance to influence the decision-making process, including just information concerning the economic, social and environmental impact. The extreme focus on profit maximising and decision-making by sheer economic arguments should be over. Fourthly, open and transparent communication towards citizens and governmental bodies is necessary to overcome conflicts and improve understanding towards these two actors. Lastly, palm oil companies should give more attention to what the government is doing with their financial support and should stimulate more commitment to spend financial compensation to public interests.

8.3.2. THE CITIZENS

Despite the weak power position of citizens in *kecamatan* Jempang, there are several recommendations that could make their future more sustainable. Even more importantly, the

chances to succeed regarding the recommendations become bigger when citizens are working together, form social networks or (formal/ informal) organisation, and create a feeling of a powerful collective. More cooperation between villages and village governments could also strengthen the citizens' power. For several recommendations, the involvement and the support of a NGO could make a significant difference for the villagers. Firstly, citizens should become more aware of their waste and its environmental impact. In Tanjung Isuy the discussion is already going on, still, there is no proper waste management. The necessary pressure on local government has to be exerted. After all, there once was a budget for waste management. Also, unsustainable fishing methods could be decreased, if governmental intervention stays out, the size of the communities makes it possible to create more social control towards these illegal methods. Secondly, the disappearance of forest gardens and the difficulties to get fruits, vegetables and timber could be solved by a simple solution. The citizens should decide to grow more herbs, vegetables and fruits on their private land or around their houses and in the village streets. YK-RASI suggested to create hydroponics, hanging vegetable gardens, in Muara Ohong. It is the solution to grow vegetables when people do not possess land¹⁵¹. These kind of projects could also become connected to reforestation programmes. Thirdly, the involvement of villagers concerning decision-making processes and policy outcomes remains rather limited. In spite of lack of state facilitation to the people of Tanjung Isuy and Muara Ohong, and repression of demonstrations in Tanjung Isuy, it is important to acknowledge that people can still try to make a difference. If people feel scared or ill at ease, self-initiated discussions and meetings fail to come into existence. Village leaders should stimulate people to come together, discuss issues, sign a petition or initiate other ways to influence governmental policy and decision-making. Villagers have to realise that they do not live in the Suharto era; they have the right to express their opinion and become more critical and less passive; they must demand more accountability of local politicians. The last topic, to improve education, is one of the most important recommendations for citizens. Particularly in Muara Ohong where high school is lacking, education would create possibilities for empowerment. People gain a little bit more understanding about what exactly is going on in the region and what people themselves can do to change their strategy. With education, environmental awareness and the necessity to obtain an official land certificate could be increased as well. They could even become able to use one of their last juridical options to achieve more sustainable practices in the area: the AMDAL. The BPD should have possibilities to dismiss a political official as well.

8.3.1. THE LOCAL GOVERNMENT

The easiest solution for the local governmental bodies to formulate, but also the most difficult solution to reach, is to bring a halt to money politics. However, money politics and other deceitful practices are part of deeply rooted cultural practices. We should not forget that Indonesia in fact 'just started' with a process of democratisation, decentralisation and the banishment of corruption, collusion and nepotism. Structures need time to change. Many corruption scandals are unravelled these days. Increasing transparency and accessibility with regard to report deceitful practices could perhaps slightly accelerate this process. Beyond the corruption, most local governments lack sufficient capacity for responsible and efficient

¹⁵¹ YK-RASI, 10 June 2010 (verbal communication).

implementation of their new roles under decentralisation; which causes non-transparent planning and monitoring, lack of infrastructure, too little investment in health and education, too little capacity building and development planning, and the lack of acknowledgement of traditional resource and land rights. This could be solved by training and education programmes for government officials and civil servants. In general there is a lack of governmental supervision with relation to the palm oil companies' performances. For all parties, it is better to make a clear distinction between 'good' and 'bad' palm oil companies. The government is the only institute that has the power to control and penalise the companies that cross legal boundaries. Also, the governmental regulation concerning the environment is clearly not enough, a revitalisation of regulation is needed; to sharpen the law, rules, and fines. To make a start with the introduction of a direct responsibility model, the market actors should personally take a certain responsibility or use at least some of their freedom for dealing with public issues. Some palm oil companies are already doing this, through supporting the government financially or in other forms, to improve public facilities like infrastructure, education and healthcare. An ambition is to make companies responsible for their environment as well. To stimulate this, all stakeholders should communicate with each other, but the government in particular should be aware of the economic actors' activities. This cooperation will probably lead to an environmental policy based on economic and environmental arguments; a more balanced policy. Related to this topic is to empower civil society, so that it form part of the consultations between state and market to interfere with the related policy development. The empowerment of the civil society can also be done by improving transparency, public communication, and education. Furthermore, meetings and discussions on village level should have a more open character, in which all citizens can discuss decisions and policy. Local leaders should improve social cohesion to create active and committed community members. Village heads may not occupy the most powerful governmental function, but still, for the local community they have an important symbolic function. Besides, lack of increased community participation in local government has been identified as one of the main failures of decentralisation worldwide (Crook and Sverrisson, 1999). The last policy recommendation for the government is to evaluate the banking sector. Financial institutions could play a vital role in reducing Indonesia's unsustainable economic activities, minimizing the social instability that often accompanies these activities, and ensuring a higher likelihood of eventual loan repayment. Weak government regulation of the banking sector allowed banks to engage in risky business practices that proved unsustainable. The forest and estate crops sector presents particular risks because the long-term availability of raw materials is uncertain, the environmental degradation and a high potential exists for social conflict. Policy of government does matter much here; subsidising these activities may lead to greater socio-political unrest and environmental degradation. Improving the regulations and procedures related to financial support of the forestry sector and the quality of its management and performances could achieve that banks do not lend money to support illegal or excessively risky practices (Colfer & Resosudarmo, 2002).

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ANNEX I: SEMI-STRUCTURED INTERVIEW FORM, ENGLISH

Semi-structured Interview Form

Identification nr.

Introduction

We are students 'Social and Political Sciences of the Environment' from the University of Nijmegen in the Netherlands. To complete our study, we are collecting data in the Jempang Lake area. During our fieldwork period, Mulawarman University provides a facilitating role.

The aim of this interview is to obtain information about the social, economic and political situation of people and their households living around the Jempang lake. Besides, we want to gain insights in perceptions and interpretations of ecological changes in this area. Most of the questions concern your household; the persons who are living together in one house. Other questions are concerned about your individual opinion. For this reason there are no true or false answers.

All information given by the respondent will be used anonymously and protected in any way.

Full name of respondent:

Nickname:

Name head of the household:

Ethnic majority of the household (var 2):

Village (var 1):

Date:

I. Household Base Data		Answers/ comments
Var 3.	How many people are there in your household?	
Var 4.	How many families are there in your household?	
Var 5.	How many living adult (17≥) males are there in the household?	
Var 6.	How many living adult (17≥) females are there in the household?	
Var 7.	How many living boys (≤16) are there in the household?	
Var 8.	How many living girls (≤16) are there in the household?	
Var 9.	How many adult members of your household have attended school?	

Var 10.	What is the highest education level reached among the adult members of your household?	1. Never been to school 2. Preliminary school 3. Elementary school 4. Junior High (SMP) 5. Senior High (SMA) 6. University		
Var 11.	How many children (≤ 16) are attending school?			
Var 12.	How many children (≤ 16) are helping with daily activities?			
II. Economic activities and resources		Answers/ comments		
Var 13.	Does your household own land?	1. Yes 2. No (GO TO 16)		
Var 14.	What is the size of your household's land?	... m ²		
Var 15.	A) What kind of crops does your household grow?	A.	B.	C.
	B) Size of land per crop?	1. Rice 2. Cassava 3. Cabbage 4. Corn 5. Melon 6. Mango 7. Rambutan 8. Banana 9. Pineapple 10. Oil palm 11. Other, specify ...		
	C) Cash crop (1), own consumption (2) or both (3)?			
Var 16.	A) Did your household own land 20 years ago?	A) 1. Yes 2. No (GO TO 17) B)		
	ASK ONLY WHEN 13 IS NO B) What happened with the land? - Purpose land - Opinion decision			
Var 17.	A, B, C) Could you mention the three most important sources of income for your household over the past 12 months? Please rank. 1. Fishing in lake or river 2. Fish farming (fish in cages) 3. Farming other products, specify ... 4. Trading fish 5. Trading other products, specify ... 6. Collecting/ hunting natural products other than fish, specify ... 7. Governmental function 8. Store/ shop/ kiosk 9. Support/ compensation from government 10. Support from family 11. Handicrafts 12. Other, specify ...	Source of income A) B) C)		

Var 18.	Is this/ Are these constant source(s) of income?	1. Yes 2. Most of them 3. No
Var 19.	A, B, C) Do you remember the three most important sources of income for your household 20 years ago? Please rank. FOR CATEGORIES SEE 17	A) B) C)
Var 20.	ASK ONLY WHEN 17 CONTAINS FISHING (1/ 2) Which kind of fishing methods does your household use? A) Fishing rod (e.g. <i>pancing</i>) B) Fishing net (e.g. <i>rengge/jarung/pukat/tahanan, hampang, jala</i>) C) Cage D) Poison E) Dynamite F) Electric device G) Other, specify ... H) Fyke (<i>bubu/ jebak</i>)	A) 1. Yes 2. No B) 1. Yes 2. No C) 1. Yes 2. No D) 1. Yes 2. No E) 1. Yes 2. No F) 1. Yes 2. No G) H) 1. Yes 2. No
Var 21.	ASK ONLY WHEN 17 CONTAINS FISHING (1/ 2) Which kind of fishing methods did you (or your household members) use 20 years ago? A) Fishing rod (e.g. <i>pancing</i>) B) Fishing net (e.g. <i>rengge/jarung/pukat/tahanan, hampang, jala</i>) C) Cage D) Poison E) Dynamite F) Electric device G) Other, specify ... H) Fyke (<i>bubu/ jebak</i>)	A) 1. Yes 2. No B) 1. Yes 2. No C) 1. Yes 2. No D) 1. Yes 2. No E) 1. Yes 2. No F) 1. Yes 2. No G) H) 1. Yes 2. No
Var 22.	A, B, C) What have been the three main expenditures for your household over the past 3 months? Please rank. 1. Food and drinks 2. Other domestic costs (electricity, water, telephone, maintenance of house, etc.) 3. Fishing equipment (fishermen boat, nets, etc.) 4. Farming (machines, fertilizer, pesticides, seeds, etc.) 5. School costs 6. Medicine/ healthcare 7. Other, specify ... 8. Transportation costs, specify what kind of transportation...	A) B) C)
	D) Is this representative for one year?	D) 1. Yes 2. No, why not?

Var 23.	Does your household have enough income to provide in primary goods/ needs (food, shelter, medicines, education)?					1. Yes 2. Most of the time 3. Sometimes 4. No		
Var 24.	A) Compared with 20 years ago, has the socio-economic status of your household decreased, increased or is it quite the same?					1. Increased 2. Decreased 3. Quite the same		
	IF ANSWER 24A IS DECREASED (1) OR INCREASED (2)					B)		
	B) What was the cause of this change?							
	C) When did it occur?					C)		
Var 25.	Does your household have access to electricity?					1. Yes, provided by the state (PLN, <i>speedometer</i>) 2. Yes, local generator 3. No		
Var 26.	What is the source of your drinking water?					1. Tap 2. Bottle 3. River 4. Rain 5. Other, specify...		
Var 27.	What does your household do with waste? - Specify what kind of waste, per category					1. Throw in the river/ lake 2. Burn 3. Bury 4. Waste is collected by somebody else 5. Other, specify ...		
Var 28.	A) Does your household have daily access to news or information from radio, television, newspaper or internet?					1. Yes, (almost) daily 2. Yes, weekly 3. No		
	IF ANSWER 28A IS YES (1/2)					B)		
	B) What kind of news is most popular in your household?							
III. Natural resources, perceptions on environment						Answers/ comments		
Var 29.	Please can you tell us about changes in and around the Jempang lake compared with 20 years ago?							
	-2: changed a lot, negatively -1: changed, negatively 0: no changes +1: changed, positively +2: changed a lot, positively							
Extent of change	-2	-1	0	+1	+2	Since when, causes, comments		Impact on household
A) Water quality								
B) Water quantity - Fluctuations in water level								

C) Fish species							
D) Fish amount							
E) Plant species							
F) Plant amount							
G) Sedimentation							
H) Birds and Wildlife							
I) Forest garden							
Var 30.	<p>A, B, C) Who, do you think, should be able to deal with these negative changes? Can choose more than one, but please rank.</p> <p>1. Villagers 2. Village headman 3. Governmental body, specify ... 4. Companies, specify ... 5. NGOs, specify ... 6. Other, specify ...</p>						<p>A)</p> <p>B)</p> <p>C)</p>
Var 31.	<p>Do you have the motivation to preserve the natural environment (lakes, swamp forest, etc.) to avoid it from degradation?</p> <ul style="list-style-type: none"> - If yes, how? - If no, why not? 						<p>1. Yes, specify...</p> <p>2. No, specify...</p>
IV. Political and legal resources/ Rules of the game							Answers/ comments

Var 32.	<p>What are the most important changes for your household after the regime change in 1998?</p> <ul style="list-style-type: none"> - Decentralisation (<i>Autonomi daerah</i>)? - Regulations; management of resources? 	
Var 33.	A) Do you or any of your household members participate in decision-making processes in your village or in another governmental layer?	<p>A) 1. Yes 2. No</p>
	IF ANSWER 33A IS YES (1)	<p>B) 1. Village level - <i>Kepala desa</i> 2. Sub-district - <i>Kecamatan</i> 3. District - <i>Kabupaten</i> 4. Province - <i>Propinsi</i> 5. Central government - <i>Pemerintah pusat</i></p> <p>C)</p>
	B) Which governmental layer?	
	C) What kind of decisions?	
Var 34.	<p>Is one of your household members involved in nature conservation and/ or environmental development programmes (e.g. forests, lakes, species)?</p> <ul style="list-style-type: none"> - What kind of program? - Initiated by whom/ what (GO/ NGO/ villagers/ etc.)? 	<p>1. Yes, specify ...</p> <p>2. No</p>
Var 35.	A) Do you know something about environmental/ social regulations concerning the performances of companies (mining/ oil palm)?	<p>1. Yes</p> <p>2. No</p>
	B) In practice, do the companies comply with these regulations?	<p>1. Yes, specify ...</p> <p>2. No, specify ...</p>
	C) Does the government check up or inspect these companies?	<p>1. Yes, specify ...</p> <p>2. No, specify ...</p>
	D) Do you think it is easy for a company (mining or oil palm) to receive a permit to start their activities in forested areas?	<p>1. Yes, specify ...</p> <p>2. No, specify ...</p>

V. Social relationships/ resources		Answers/ comments
Var 36.	To what extent does your household trust:	Unreliable ←-----→ Trustworthy
	A) Mining companies	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
	B) Oil palm companies	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
	C) Government officials - Specific layer? Argumentation.	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
	G) NGOs	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
Var 37.	How are feelings of mutual trust among village members in the village?	1. Low (most people are unreliable) 2. Medium 3. High (most people are trustworthy)
Var 38.	A) How often do conflicts occur between people or families in your village?	1. Often 2. Sometimes 3. Almost never
	B) What is/ was the cause? C) How are the conflicts settled? D) Do conflicts occur more often than in the past? 1. Yes, specify since when ... 2. No	
Var 39.	A) What about conflicts with actors from outside the village, how often do they occur?	1. Often 2. Sometimes 3. Almost never
	B) With whom? C) What is/ was the cause? D) How are the conflicts settled?	
	E) Do conflicts occur more than in the past?	1. Yes, specify since when... 2. No
Var 40.	A) Are you or is one of your household members joining a social organisation (such as a labour related organisation, political organisation or women group for example)?	1. Yes 2. No
	IF ANSWER 40A IS YES (1) B) What kind of organisation?	B)
	C) What is the reason for membership?	C)
Var 41.	A) Did you or one of your household members participated in collective activities concerning environmental issues during the last 12 months?	1. Yes 2. No
	IF ANSWER 41A IS YES (1) B) What kind of collective activity? C) Amount of people?	C)

	1. Meeting/ discussion 2. Cleaning up the environment (<i>kotong royong</i>) 3. Sign a petition 4. Demonstration 5. Collective refusal to obey orders 6. Demolition of property 7. Other, specify ...	D) What was the purpose of the particular action? E) What was the reason you/ he/ she joined the particular action?	D) E)
Var 42.	In case of urgent demand, can your household get any help (money, food or emotional support for example) from other villagers?		1. Yes 2. Sometimes 3. No
VI. Norms, values and discourses			Answers/ comments
Var 43.	Do you or does your household feels threatened by something or somebody?		1. Yes, specify ... 2. No
Var 44.	A) Do you feel that something or somebody is doing unjust to you or your household?		1. Yes 2. No
	IF ANSWER 44A IS YES (1)		
	B) By who or what?		B)
	C) For what reason?		C)
Var 45.	What is your opinion about:	Very negative ←-----→ Very positive	Argumentation
	A) Mining	-- - 0 + ++	
	B) Oil palm plantations	-- - 0 + ++	
	C) New fishing techniques	-- - 0 + ++	
	D) Current social welfare legislation	-- - 0 + ++	
Var 46.	How do you see the future livings of your children? - Work perspectives? - Living perspectives? - Environmental situation?		
Var 47.	PLEASE ASSESS FOR YOURSELF, DO NOT ASK		1. Below standard

	What is the quality of the respondent's house like?	2. Standard 3. Above standard
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ANNEX II: TOPIC LIST IN-DEPTH INTERVIEWS

TOPIC LIST IN-DEPTH INTERVIEW GOVERNMENT OFFICIALS I

- Introduction
- What are the current topics where you're working on?
- Frontlines Forestry Department East-Kalimantan.
- Policy nature conservation.
- Could you describe the formal procedure for a company (oil palm, coal mine, logging) to receive a permit and become active in East-Kalimantan?
 - * If you compare the formal procedure with the procedure in reality, are there any problems related to the implementation of the regulations in practice?
 - * Was this before 1998 (OD) different?
- In practice, do the companies comply with these regulations?
Does the government check up or inspect these companies?
Do you think it is easy for a company (mining or oil palm) to receive a permit to start their activities in forested areas? (Many villagers complained that companies receive their permit too quickly)
- What is the content of the Indonesian provincial policy concerning the ecological (and social) performances of oil palm- and coal mine companies?
 - * Is this on national level different?
 - * Do you think that the national regulation concerning mining activities, oil palm activities & logging activities pays enough attention to ecological and social performances?
- How would you describe the relation between the government on provincial level and companies?
 - * Power relations? (national, *kabupaten*, *kecamatan*).
 - * Direct contact with villages? Do you know something about resistance of villages/villagers against companies? Or government? When? How settled?
- What are the most important changes for the resource management in East-Kalimantan (or Kutai-Barat) after the regime change in 1998?
- What do you know about the environmental changes in the MMA?

Main problems

1. Bad water quality (pesticides, fertilizers) → impact health villagers, flora & fauna
 2. Increasing floods and dry periods more extreme: disturbed water regulation system of the lake
 3. Decreasing fish amount & fish size
 4. Deforestation: - erosion/ sedimentation
 - difficulties to get fruits & vegetables
 - landownership (landregistration) villagers ↔ government/ company
- Who or what is the most responsible for the environmental changes in the MMA?

- Who, do you think, should be able to deal with these negative changes?
* Broken promises government (officials) & companies = level of trust is low
- What are the solutions for this area to become more sustainable in the future?
* Does this correspond with the Five-year Plan/ Development Program of East-Kalimantan?
- If not, what can we expect?
- (Perception on nature/ environment)
- (Norms, values)
- (Visions, goals)
- Land use map of area (current oil palm plantations & coal mine activities, protected areas etc.).
- Example of contract between government & oil palm company/ coal mine company

TOPIC LIST IN-DEPTH INTERVIEW GOVERNMENT OFFICIALS II

- What are the main topics where you're working on?
 - o Is this changing every year (by changing priorities from central government?)
- Frontlines *Kecamatan* Jempang
- Can you tell us about the current land use planning of this *kecamatan*? – Receive map?
 - o Non-forest
 - o Nature conservation (policy nature conservation)
keep the existing trees around the Lake for bird's life
 - o Economic activities
 - o Reforestation (climate change action plan, received any seeds from provincial level?) – One man – one tree program, other programs → location?
- Development plan (guide with goals) for *kecamatan*?
 - o Waste-management?
- Could you describe the formal procedure for a company (oil palm, coal mine, logging) to receive a permit and become active in *Kecamatan* Jempang?
- Do you think it is easy for a company (mining or oil palm) to receive a permit to start their activities in forested areas? (Many villagers complained that companies receive their permit too quickly) – 2 kinds of permits (amount of land)?
- Does the *Kecamatan* check up or inspect these companies?
- How much do they receive from companies and government? How much is necessary?
 - o Taxes/support in any other form.
 - o PLASMA PT. Lonsum 2009, formalised?
- Is there any regulation related to ecological (and social) performances of oil palm- and coal mine companies?
- How would you describe the relation between *kecamatan* and *kabupaten*?
- What are the possibilities for villagers to participate in decision making processes?

- Demonstrations Samarinda
 - o Cause?
 - o Problem solved? How?
 - o Other kinds of demonstrations in Tanjung Isuy?
 - o Landownership: Hak Ulayat (right for tribe to manage and develop land around them, without land certificate)
- What does he know about problems in Muara Ohong; treated in a different way.
- Mainproblems for villagers in area (what's his opinion about this and how does he wants to solve it?)
 1. Bad water quality (pesticides, fertilizers) → impact health villagers, flora & fauna (decreasing fish population, impact economy)
 2. Increasing floods and dry periods more extreme: disturbed water regulation system of the lake
Solution is to make lake capacity bigger (by digging sedimentation)...
 3. Deforestation: - erosion/ sedimentation
- difficulties to get fruits & vegetables

TOPIC LIST IN-DEPTH INTERVIEW GOVERNMENT OFFICIALS III

- Waste management: what are the options to solve it.
- Plans to improve education?
- Support PMPN
- New developments PT Delta?
 - Contact with other villagers/ persons about this project?
- Formal procedure when company wants to become active?
 - Villagers involved (signatures)
 - Role camat/ k.d. → bupati
- Resistance villagers against companies (demonstration)
 - When/ why/ how/ ended up in...
- LSM (Putih Jaji): when active, what they did/ how ended)
 - Only discussions?
- Many villagers against oil palm plantations (they notice negative changes)
 - What are options for villagers & k.d. to change situation & increase attention?
- Mainproblems for villagers in area (what's his opinion about this and how does he wants to solve it?)
 1. Bad water quality (pesticides, fertilizers) → impact health villagers, flora & fauna (decreasing fish population, impact economy)
 2. Increasing floods and dry periods more extreme: disturbed water regulation system of the lake
 3. Deforestation: - erosion/ sedimentation
- difficulties to get fruits & vegetables

TOPIC LIST IN-DEPTH INTERVIEW CHAIRMAN GAPKI

- Introduction
 - Seize plantations/ location?
 - Purpose palm oil: biofuel?
 - Could you describe the formal procedure for an oil palm company to receive a permit and become active in East-Kalimantan?
 - Which governmental level/ officials most important?
 - Amdal?
 - Check up/ inspections government?
 - How to get land for plantation?
 - Buy it from who?
 - Fixed minimum price for land by government if company wants to buy land from landowners?
 - Maximum land area oil palm companies (60.000 hectares)?
 - Direct contact villagers?
 - Compensation for government/ villagers?
 - Any attempts from NGOs to lobby?
 - Ecological/ social regulations?
 - RSPO?
 - Opinion?
 - Aware of negative consequences oil palm plantations?
 - Solutions?
 1. Bad water quality (pesticides, fertilizers) → impact health villagers, flora & fauna (decreasing fish amount & fish size)
 2. Increasing floods and dry periods more extreme: disturbed water regulation system of the lake
 3. Deforestation: - erosion/ sedimentation
 - difficulties to get fruits & vegetables
 - landownership (landregistration) villagers ↔ government/ company
 - Reducing seize of plantation
- Less use of chemical fertilizers/ pesticides or less aggressive (alternatives)?