

# Reducing poverty through REDD+?

A study of preconditions for implementing REDD+ in Manokwari Utara,  
Indonesia.

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*This Master's Thesis is carried out as a part of the education at the University of Agder and is therefore approved as a part of this education. However, this does not imply that the University answers for the methods that are used or the conclusions that are drawn.*



## **Abstract**

This paper discusses a variety of prerequisites that are needed to reduce poverty through implementation of REDD+. Indonesia has the third largest tropical forest in the world, and is among the highest on deforestation rate. Hence, Indonesia is an important part of reducing greenhouse gas emissions. Indonesia is one of the initial pilot-test countries that already have started REDD+ programmes. The main goal of REDD+ is reducing emissions as well as conservation and enhancing carbon stocks, however an important co-benefit of REDD+ is poverty reduction. If the right preconditions are in place and the focus is on a pro-poor REDD+ implementation, it may have huge implications for poor forest communities. The aim of this research will be to find out what actions that is needed in Manokwari Utara, Papua Barat, Indonesia, to fight poverty, and what the community see as the most prevalent issues to focus on to improve their living conditions. Hence one may find out the best way to implement the REDD+ programme that will give the local people an opportunity to improve their livelihood.

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*(All photos are taken by the author, Linda Haaø Fossetøl)*

## Abbreviations and Glossary

Bupati – the Head of District (Bupatis in plural)

Kabupaten - district

Kampung - village (kampungs in plural)

Kecamatan – sub-district

Kota – city, municipality

Puskesmas – health centre

Posto – small health centre

Pak/Ibu – Mr. /Mrs

ASEAN – Association of Southeast Asian Nations

BPS – *Badan Pusat Statistik* – Central Statistical Agency

CBNRM – Community Based Natural Resource Management

CDM – Clean Development Mechanism

CFM – Community Forest Management

COP – Conference of the Parties

CPR – Common-pool resources

Dewan Adat Papua – Papuan Tribal Council

FAO – Food and Agriculture Organization

Forest Estate – Under the New Order regime, the national government's MoF had virtually full authority to administer an area of 143 million hectares that was classified as 'Forest Estate'.

GDP – Gross Domestic Product

Golkar – *Partai Golongan Karya* – The Party of the Functional Groups

HDI – Human Development Index

HPH – Commercial Forest Concessions

HPI – Human Poverty Index – *a broader measure of poverty by combining four indicators: the probability of a person not living to age 40; the adult literacy rate; the proportion of people without access to safe water; and the proportion of children who are malnourished* (BPS, Bappenas and UNDP 2004 in Resosudarmo et al 2009:43)

ISP – Intersectoral Partnership

KPK – *Komisi Pemberantasan Korupsi* - Commission for the Eradication of Corruption

MoF – Ministry of Forestry

MRP – *Majelis Rakyat Papua* - Papuan People's Assembly

MRV – Measurement, Reporting and Verification

OPM – '*Organisasi Papua Merdeka*', Free Papua Movement

PAM - Policies and Measures

PES – Payments for Environmental Services

PKI – *Partai Komunis Indonesia* – The Communist Party of Indonesia

REDD+ - Reducing Emissions from Deforestation and forest Degradation, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks.

UN – The United Nations

UNDP – United Nations Development Programme

UNEP – United Nations Environment Programme

UNFCCC – The United Nations Framework Convention on Climate Change

UNIPA – *Universitas Negeri Papua* – The University of Papua in Manokwari

VOC – The Dutch East India Company

WWF – World Wildlife Fund

WRI – World Resources Institute



## 1.0 - Introduction

Deforestation and forest degradation account for almost 20% of global greenhouse gas emissions in the world. It is more than the entire global transportation sector, and second to the energy sector. REDD stands for 'Reducing Emissions from Deforestation and forest Degradation' and is meant as a programme that makes it economical beneficial for developing countries to conserve the forests. "REDD+" goes beyond deforestation and degradation and includes the role of conservation, sustainable management of forests and enhancement of forest carbon stocks (UN-REDD Programme 2009). In September 2008, the United Nations REDD programme was launched in New York by the Secretary- General of the UN, Ban Ki-Moon and the Norwegian Prime Minister, Jens Stoltenberg. Currently, countries all over the world are working together with the aim to stabilise greenhouse gas emissions and thus also halt climate change.

Indonesia has the world's third largest tropical rainforest and has also one of the highest deforestation rates in the world. It results in a dramatic loss of unique biodiversity, but "this deforestation also contributes significantly to climate change, which in turn threatens the livelihoods of millions of people who live across the 17,000 islands of Indonesia" (UN-REDD Newsletter 2010). Hence, Indonesia is one of nine initial pilot-countries for UN-REDD programme.

However, if the REDD+ programme is going to be successful, a proper implementation and monitoring is needed, as well as active involvement of all relevant stakeholders including indigenous peoples and other forest-dependent communities. One of the major tasks is how the REDD+ programme is going to be implemented, and how it will affect the surrounding communities. The research for this paper was conducted in 11 different villages in the sub-district Manokwari Utara in Papua Barat, Indonesia in February 2010.

The topic of this thesis is:

***Reducing poverty through REDD+?***

***A study of preconditions for implementing REDD in Manokwari Utara, Indonesia.***

The main objective is to find out how funding from REDD+ can be a means to reduce poverty in village communities in Manokwari Utara. The emphasis will be on how to prepare and

adjust the government as well as the local people to make the forest communities benefit from the programme.

The paper has these research questions as basis:

1. *How is the current development state in the community in Manokwari Utara, especially regarding health, education and business opportunities?*
2. *What are the community members' opinions about their living conditions, and what do they prioritise as important to develop their community?*
3. *How should the REDD+ programme be implemented to make sure that the villagers benefit as much as possible from it?*

The objective and research questions are formulated with the aim of attaining knowledge about how the funding from REDD+ can be used in a way to alleviate poverty in the villages in Manokwari Utara. When learning about the current situation regarding poverty and what the people think about their situation, one can better find out what things that need to be improved and how it can be done. Furthermore, the prerequisites for implementation of REDD+ in a pro-poor manner needs to be addressed.

I have used qualitative research method to gather in-depth information about the people living in the villages in Manokwari Utara. This way I have tried to learn about their thoughts and opinions regarding their livelihood, and usage and management of forest. To learn more about the society in Manokwari and Papua I have also interviewed people in different institutions, like Forestry Agency, Education Agency and health facility. Furthermore I have interviewed NGOs and expert people on forest management and related issues.

One of my main findings is that the community in the villages depend highly on help from the government. Most of the respondents say that the government should do more and different things to help develop the community. Moreover, most of the people are somewhat dependent on the forest from farming, gathering vegetables and fruits, and hunting, thus the REDD+ programme may affect their way of living.

After the introduction there will be a presentation of the study context, starting with Indonesia and narrowing it down to Papua and Manokwari Utara. Then there will be a description of the REDD+ programme and central REDD+ aspects, before chapter 4.0 will be a theoretical chapter about poverty in relation to REDD+, and REDD+ theory. Chapter 5 will be about the

research method that has been used conducting the fieldwork. Then chapter 6 will present the findings and discuss them in relation to the written theory, before it eventually leads to a conclusion with some recommendations for the future.

## 2.0 - Study Context



**Photo 1: The beautiful coast of Manokwari Utara**

### **2.1 Indonesia**

Indonesia is situated in South East Asia between the Indian Ocean and the Pacific Ocean. It is an archipelago of about 17,500 islands, 6000 of them inhabited. Indonesia is a country with vast cultural, economical and social differences. There are about 240 million inhabitants according to estimations done in July 2009. Jakarta is the capital, situated on the island of Java. The majority of the population are Muslims (86%), while 6% are Protestants, 3% are Roman Catholic, 2% are Hindu and other or unspecified amount to around 4% (2000 census). The official language is Bahasa Indonesia which is a modified form of Malay. Other spoken languages are English, Dutch and numerous of local dialects. Indonesia is divided into 33 administrative divisions; 30 provinces, two special regions and one special capital city district (CIA 2009). Indonesia is now the world's third-largest democracy, the world's largest archipelagic state and home to the world's largest Muslim population.

The climate is tropical, hot and humid, but more moderate in the highlands. It is mostly coastal lowlands, but larger islands have interior mountains. The country is rich in natural resources; petroleum, tin, natural gas, nickel, timber, bauxite, copper, fertile soils, coal, gold,

silver. Indonesia is also victim to frequent natural hazards like occasional floods, severe droughts, tsunamis, earthquakes, volcanoes and forest fires. The most current environmental issues are deforestation, water pollution from industrial wastes, sewage, air pollution in urban areas and smoke and haze from forest fires (CIA 2009). Indonesia has some of the most biologically diverse forests in the world, only Brazil and The Democratic Republic of Congo are ranked above. The country is also on the top when it comes to deforestation rate.



Figure 1: Map of Indonesia

## 2.2 History of Indonesia

Portuguese traders were the first Europeans to arrive on the islands in the beginning of the sixteenth century trying to monopolise the sources of nutmeg, cloves and cubeb pepper in Maluk. Later Dutch and British traders followed. The Dutch established the Dutch East India Company (VOC) in 1602 and became the dominant European power. The VOC was formally dissolved in 1800, and the Netherlands established the Dutch East Indies as a nationalised colony.

Vickers (2005:2) claims that “Indonesia’s historical experience explains its diversity, and why it is a country of paradoxes”. In earlier times kingdoms embraced large parts of the Indonesian archipelago, but it did not come into existence as a country until the middle of the 20<sup>th</sup> century. The Netherlands established the physical boundaries as they took over the many

islands, and made them into a single colony (The Dutch East Indies). The Dutch ruled some parts of Indonesia for 300 years, others for less than thirty. Dutch rule provided administrative and economic foundations for the modern state, and can thus explain many aspects of Indonesia (Vickers 2005). The Indonesians began to see themselves as a nation under the Dutch, so after the Japanese invaded the country in 1942, a small group of Indonesians, with the notion of nationalism, led the struggle for independence; ‘the Indonesian revolution of 1945 to 1949’. Sukarno, an influential nationalist leader, led the revolution and he was appointed the first President of Indonesia. He managed to pressure the Japanese to give Indonesia its independence. On June 1, 1945 he held one of his most famous speeches. That is also when he defined ‘the Pancasila’, or ‘Five Principles’ (nationalism, internationalism, democracy, social prosperity, and belief in God), that are still the sacrosanct state doctrine of Indonesia (Britannica 2011).

The Dutch retained control over the western part of New Guinea after the independence of Indonesia. However, after negotiations and armed clashes between Indonesian and Dutch troops, Indonesia assumed administrative responsibility for West Irian in 1963, and was renamed Irian Jaya some years later. In 1976 Indonesia also forcibly annexed the Portuguese colony of East Timor (Britannica 2011).

There was a rapid succession of governments under a series of prime ministers in the early and mid-1950s. “This instability created a growing disillusionment with the fruits of independence and a sense of contrast between the heroism of the revolution and the self-seeking party rivalry that followed it” (Britannica 2011). Particularly, the conflict between the outer islands and the island of Java was becoming more marked. These factors of discontent led to movements of regional dissidence in December 1956, supported by local military commanders, in western Sumatra, the northern Celebes and elsewhere. There was a clear dissent among the geographically scattered population. Sukarno was resentful of his circumscribed position as figurehead president and began to interfere more frequently in the constitutional processes. In February 1957 Sukarno announced his own concept for Indonesia’s government. He said that liberal democracy was unsuited to Indonesian circumstances, so he wanted a political system of “democracy with guidance” based on indigenous procedures. He argued that the Indonesian way of deciding important questions was by prolonged deliberation designed to achieve consensus, as it was the procedure at the village level, it should also be the model for the country.

The growing power struggle between the military and the 'Communist Party of Indonesia' (PKI) loomed over Sukarno's government. On September 30 1965, there was an attempted coup, and six top Army generals were killed. Eventually the coup was put down by army chief of staff, General Suharto, and officers loyal to him. Following, Suharto's forces killed hundreds of thousands of suspected communists in "a massive purge aimed at undermining Sukarno's rule" (Infoplease 2011). Communists, alleged communists, and their families were in the following years frequently denied basic rights such as right to a fair trial, right to equal opportunity in employment, and freedom from discrimination. Only on Buru Island in the Moluccas, approximately 10,000 people primarily known or purported communists were detained without a trial between 1969 and 1980 (Britannica 2011).

Suharto took over the control of the government, and gradually eased Sukarno out of office, becoming the acting President in 1967. The military assumed an overarching role in national affairs under Suharto, and also relations with the West were enhanced. Although the opposition was tightly controlled to choke off dissent, the Indonesian economy improved dramatically and national elections were permitted (Infoplease 2011). Suharto instituted a policy he called the 'New Order', and he relied on the help of American-educated economists to reinvigorate the Indonesian economy (Britannica 2011). Foreign aid and western investment were encouraged, and the country's domestic oil production expanded greatly, from which the revenues were used to fund infrastructure and development projects. Suharto managed to restore steady economic growth and also reducing annual rate of inflation from 630 percent in 1966 to less than nine percent by 1972. He pursued an anticommunist and pro-Western stance in foreign affairs. Sukarno had withdrawn from the United Nations, but Indonesia rejoined under Suharto, and in 1967 it became a founding member of the Association of Southeast Asian Nations (ASEAN). The fact that Suharto's New Order administration was supported by the US government and encouraged foreign direct investment was a major factor in the three decades of substantial economic growth. However, the authoritarian 'New Order' regime was widely accused of corruption and suppression of political opposition. Suharto's government was an authoritarian regime based on the power of the military, which went deeply into every branch of the government and the economy. He maintained complete control of the country's political life as head of both the armed forces and the government. His political party, Golkar (the Party of the Functional Groups), scored

victories repeatedly in elections to the People's Consultative Assembly, which in turn re-elected Suharto unopposed to the presidency for six 5-year periods from 1973 to 1998. There was little room for civil liberties and not much dissent was tolerated (Britannica 2011).

The New Order policies of Suharto had their critics both inside and outside the country. Some argued that the republic was becoming economically dependent on Western capital and particularly on large transnational corporations. Furthermore they complained that direct foreign investment had created an Indonesian merchant class that "boosted its affluence and influence through dealing with foreign companies, and that the new wealth had exaggerated existing inequalities rather than removing them" (Britannica 2011). Others believed, however, that long-term improvement depended on the economic growth that "would flow from policies designed to encourage large-scale investment rather than small-scale labour-intensive developments".

Nevertheless, the economic achievements during Suharto's New Order policies were spectacular. The developmental patterns of the archipelago were transformed during the 1970s and 1980s, especially outside Java. The apparent dominance of Java was undermined by the density of the island's population. Java was outstripped by some of the other provinces in terms of per capita share of foreign investment. North Sumatra added mining and oil and natural gas exploration to its estate agriculture. However, mining and oil had an even greater impact on the development of Aceh, Riau and East Kalimantan, as well as Irian Jaya during this period. East Kalimantan, with timber in addition to oil, natural gas and coal attracted high levels of both foreign and domestic investment, in per capita terms, and it became one of the most rapidly developing provinces of the republic. Having said this, other provinces, such as Sunda Islands – West Nusa Tenggara, East Nusa Tenggara and East Timor – were economically the least developed provinces in both absolute and per capita terms. The Indonesian government implemented successive five-year plans to address the issue of regional disparities and spreading economic growth more evenly (Britannica 2011).

The New Order regime continued to be a stable regime politically, partly because of economic development across the country, but mainly because of military underpinnings. However, it would be wrong to describe the New Order as a military regime, Suharto was concerned with observing constitutional forms in his early years of presidency, and his government initially had strong civilian components. Nonetheless, military strength together with bureaucracy was



apparent, and the government developed clear authoritarian characteristics (Britannica 2011). Another important measure of political control was the government's imposition of the Pancasila, 'The Five Principles', originally formulated by Sukarno, as the national ideology.

Suharto's economic policies contributed to reducing the strong regional feelings of the 1950s, and perceptions that the regime was dominated by Java remained. Irian Jaya was a special challenge to the New Order. The Suharto government still had to struggle with frequent outbreaks of violence provoked by the Free Papua Movement (Organisasi Papua Merdeka; OPM); even after the 1969 Act of Free Choice had confirmed the desire of Western New Guinea to remain a part of Indonesia. In an attempt to integrate the province more into the country, immigration to Irian Jaya from Java and elsewhere were encouraged, along with more widespread educational opportunities to residents of the region. However, these initiatives were locally interpreted as examples of cultural imperialism. Another source of resentment was the exploitation of the resources of the province such as oil, natural gas, copper and timber (Britannica 2011).

Suharto stayed in power for three decades, and during this period Indonesia's economy grew an average of seven percent annually, and living standards rose substantially for the majority of the population. To spread the national language, Bahasa Indonesia, and to unify the country's disparate ethnic groups and scattered islands, education and mass literacy programs were used. Furthermore, in order to slow down the growth of Indonesia's large population the government initiated one of Asia's most successful family-planning programs. However, these successes were increasingly spoiled by the inequitable distribution of the nation's expanding wealth. Relatively small urban elites and military circles received a disproportionately large share of the benefits of modernisation and development. The president also allowed his friends and six children to assume control of key sectors of the economy and gather huge fortunes "by means of monopolies and lucrative trade arrangements" (Britannica 2011). By the 1990s even the middle class and business circles had begun to alienate the unrestrained corruption and favouritism of his regime, but continuing high rates of economic growth and the government's tight political control insulated Suharto from any genuine opposition. However, in 1997, Indonesia got caught up in a currency crisis sweeping across Southeast Asia. The value of the rupiah, the Indonesian national currency, suddenly declined and this financial crisis exposed deep flaws in the national economy. Even though the economy went into recession, inflation skyrocketed and the living standards for the

poor collapsed, Suharto refused demands for structural reforms. Nevertheless, in May 1998, antigovernment demonstrations turned into rioting in Jakarta and other cities, and Suharto had lost the support of the military; he was forced to resign the presidency on May 21. The vice president B.J. Habibie took over his place in office.

The following years after Suharto have been called the age of 'reformasi' (reformation). During the period from 1998 to 2004 Indonesia had four presidents. These unsettled years were characterized by increased freedom of the press, and the public demanded for the development of a strong democracy and effective law enforcements. Furthermore, some regions called for a greater degree of independence (Britannica 2011). At the same time, different areas in eastern Indonesia were unstable due to ethnic and religious conflicts. After one year, Wahid took over as president after Habibie. He planned to give Aceh a referendum, but it would only be to decide on various modes of autonomy rather than decide on independence like in East Timor. Wahid also visited Jayapura, the capital of Irian Jaya, where he convinced leaders of the region that he was a force for change and he encouraged the name 'Papua'. Even though he had a softer approach to the unrest in various parts of the country, he was also involved in a number of scandals, and was criticized for being involved in corruption and for being incompetent. Further he was blamed for not stopping ethnic clashes and killings in Aceh, Irian Jaya, the Moluccas Islands and Borneo. In July 2001, Wahid was forced from power, and Vice President Megawati Sukarnoputri (Sukarno's daughter) took over (Infoplease 2011). She maintained some of Wahid's presidential priorities, among these, the preservation of the integrity of Indonesian territory and the recovery of the economy. Furthermore, Megawati strove to resolve conflict in restless regions such as East Timor, Aceh and Irian Jaya. In 2002 East Timor achieved full sovereignty, and Aceh and Irian Jaya were given special autonomy and an increased budget. Irian Jaya became Papua in 2002 and was divided into two provinces; Papua and West Papua, in 2003. Despite Megawati's accomplishments and efforts to keep foreign investments and exploring additional export opportunities, her confidence in the government was destroyed by continuing economic problems, violence associated with separatists and political corruption. In July 2004, she was defeated by her opponent, Susilo Bambang Yudhoyono in a runoff vote for president (Britannica 2011). Thus, Yudhoyono won Indonesia's first direct Presidential election, and he was also elected to a second term in 2009.

Already in December 2004 Yudhoyono's administration faced major crisis; a severe earthquake off the northwest coast of Sumatra triggered a large tsunami that flooded the island's western coastal areas, causing widespread death and destruction. Despite of this disaster, he managed to improve the country's economic and political stability significantly. Unfortunately even more natural disasters occurred. In 2009 there were another major earthquake killing more than a thousand people and injuring thousands, and in 2010 another tsunami struck the Mentawi Islands off the west coast of Sumatra. Almost at the same time, the volcano Mt. Merapi in central Java began erupting, killing at least 350 people and forcing about 130,000 to evacuate the area (Britannica 2011).

The new administrations after Suharto have had a lot to deal with, not only with natural disasters, but also in trying to stabilise the country economically and politically. Decentralisation has been a huge part of the years after Suharto and has had huge implications for the development of the country.

### ***2.3 Decentralisation***

Even though there was a "vener of decentralisation" under the New Order regime of Suharto, it was mainly highly centralised (Ahmad & Mansoor 2002:4). A law from 1974 provided the framework for decentralisation, "but there was little implementation or effective devolution of authority to lower levels of government". The centre dominated all levels even though there formally were three main levels of government; the central government, 27 provinces and 333 districts. The central government exercised "significant control over the appointment of local officials and uses of funds by these officials" (Ahmad & Mansoor 2002:4).

States all over the world have over the last 20 years engaged in reform processes that have been referred to as decentralisation. These processes have taken place in a wide range of sectors, including infrastructure, education, health care, fiscal administration, and natural resource management, among others. The aim has been to shift elements of administrative authority and responsibility away from highly centralised states in these sectors. The rationale for doing so vary depending on the social, political and economic context in which the reform processes are being implemented, and on the objectives the reforms intend to achieve. Barr et al (2006:3) point out some aims that have typically been attributed: "to reduce central

government expenditures; to provide social services more efficiently; to distribute public resources more equitably; to promote conservation or sustainable management of natural resources; and to broaden popular participation in governance processes”, often a combination of these aims. In many parts of the world decentralisation is often driven by the need for improved service delivery, according to Ahmad & Mansoor (2002). However, they (Ahmad & Mansoor 2002) also state that in Indonesia the demand for decentralisation is associated more with control over resources and political and legal autonomy, probably because of the distinct ethnic and geographic factors that have exacerbated the frustration with central domination. Barr et al (2006) confirms this by saying that the decentralisation process in Indonesia was driven by the demands of stakeholders in the natural resource-rich regions in the nation, who loudly called for a greater share of the oil, gas and timber revenues generated within their districts and provinces.

In Indonesia the process of decentralisation is also known as ‘regional autonomy’. Two of the most important laws enacted in 1999 aiming at transferring authority to governments at lower levels, provincial, district, and municipal level, were Law 22/1999 on Regional Governance, and Law 25/1999 on Fiscal Balancing between the Central Government and Regional Governments. Together, these laws provided the legal basis for regional autonomy in Indonesia. They laid out a broad framework for the decentralisation of administrative and regulatory authority, primarily to the district level. Law 22/1999 assigns the autonomous regions (which are defined to include provinces, districts and municipalities) with authority “to govern and administer the interests of the local people according to their own initiatives, based on the people’s aspirations, and in accordance with the prevailing laws and regulations” (Barr et al 2006:11). In particular, this law gives district and municipal governments authority to exercise principal governance functions in a wide range of fields, including public works, health, education and culture, agriculture, communication, industry and trade, capital investment, environment, land, and cooperative and manpower affairs. Provincial governments however, are given relatively little new authority, other than vaguely worded responsibility to help manage relations among districts and municipalities (Barr et al 2006). Law 25/1999 on Fiscal Balancing provides a framework for the redistribution of revenues among Indonesia’s national and regional governments. The law gives district and provincial governments “considerably greater authority and responsibility to manage their own budgets, and to raise their own revenues to help offset the added costs associated with decentralization” (Barr et al 2006:11). Another significant point is that it authorises a

redistribution of royalties from timber production and other types of natural resource extraction among the country's national, provincial and district governments.

Stakeholders at the provincial and district levels responded very enthusiastically to Indonesia's regional autonomy and decentralisation initiatives. The two laws were scheduled to take effect on January 1, 2001, however many provincial and district governments began issuing their own regulations and asserting their administrative authority in key areas almost immediately after the regional autonomy law were issued. So in reality, decentralisation occurred much more rapidly, and in some areas extended much further, than the formal reform process prescribed by the new legislation (Barr et al 2006). This was particularly the case in the forestry sector.

### **2.3.1 Decentralisation of Forest Administration in Indonesia**

The decentralisation laws gave district governments enhanced powers to issue licences and permits in the forestry sector, most importantly the power to issue small scale concessions. Meanwhile, powers over spatial planning and the setting of forest boundaries remained the preserve of higher levels of government. At the same time district governments in forest-rich regions moved quickly to establish administrative control over timber production within their regions. *Bupatis* (Head of District) issued large numbers of small-scale logging and forest conversion licences, and district governments imposed new taxes and regulatory restrictions on HPH (Commercial Forest Concessions) timber concessions that operated within their boundaries. This generated substantial flows of regionally generated revenues, and also the allocation of small-scale district timber permits provided lucrative income-earning opportunities for entrepreneurs, forest communities and government officials based in the region. Such opportunities and revenues had not been formally accessible to district governments prior to decentralisation. Thus, the decentralisation process moved towards a far more equitable sharing of the economic rents associated with timber production among local and regional stakeholders. However, such benefits have been concentrated in regions with rich forest resources, and the distribution of timber rents at the district level has often been dominated by local elites.

The implementation of decentralisation in the forestry sector has been a contested process with the Ministry of Forestry (MoF) and district governments engaged in a struggle over

timber rents (Barr et al 2006). From the start of the decentralisation process, the MoF has taken steps to stop district governments from allocating timber and forest conversion permits within the 'Forest Estate'. In 2002 these efforts were intensified by the issuing of Regulation 34/2002, which reconsolidated the administrative control over timber harvesting and most other significant aspects of forest management to the Ministry. Since then, the MoF has issued several new IUPHHK concession licenses, which are mostly intended to promote industrial plantation development. Further, they have taken steps to review timber and forest conversion licenses issued by Governors and Bupatis "and to revoke those that do not comply with central government regulations" (Barr et al 2006:122). Hence, the political and regulatory pendulum has swung back in the direction of recentralisation.

Indonesia's decentralisation process was poorly planned and poorly implemented in many fundamental aspects. Like mentioned, many district governments took initiatives well in advance of the laws and implementing regulations, hence the real decentralisation proceeded much faster than the laws were scheduled to take effect. Furthermore, some district officials "also assumed discretionary powers that were much wider than those given to them by the nation's decentralization and regional autonomy laws" (Barr et al 2006:122). This was for instance seen through the issuance to impose new types of district-level taxes and fees and also the widespread allocation of small-scale logging permits by *Bupatis*, which often only had a thin legal basis.

The central government's power to enforce its policies and regulations at the local level fell sharply in the first years after Suharto, much due to the rapid economic and political transition. It ended up in a poor position to use policy instruments provided in the law for the supervision and monitoring of district initiatives. At the same time, many district governments and local stakeholders liberally interpreted regional autonomy to mean that they had full authority to control the resources within their area. Another reason which encouraged district officials to act beyond the authority formally assigned to them was the slow and uneven pace of legal reform. The first laws and regulations had few details on how these should be implemented in the forestry sector. Hence, district officials often took advantage of this legal-regulatory ambiguity and interpreted the regulations and the decentralisation laws in ways that provided district stakeholders with the greatest immediate economic advantage. It was not until Regulation 34 came in June 2002 that a detailed description of how administrative authority should be shared among the central, provincial and district governments with respect

to the Forest Estate was issued. With this, the MoF was able to use this regulation to significantly reduce the power of districts in the forestry sector (Barr et al 2006).

Indonesia's decentralisation process has also been hindered by significant ambiguities and contradictions among the multitude of laws and regulations that was introduced in the years after Suharto. The fundamental contradictions that exist between Law 22/1999 on Regional Governance and Law 41/1999 on Forestry have made the decentralisation of forest administration particularly complicated. Law 41/1999 is highly centrist in tone and focuses on reaffirming the central government's primary authority in most major aspects of forest administration, which is in sharp contrast with the regional autonomy law issued only a few months earlier. "This contradiction reflects the fact that the Indonesian state did not take a 'whole of government' approach to developing decentralization related policy and implementing it" (Barr et al 2006:123). The substance and tone of Law 41/1999 indicates the sharp resistance decentralisation has encountered within the MoF. Moreover, the 1999 forestry law has provided the legal basis for the Ministry's subsequent efforts to recentralise key elements of administrative authority in the forestry sector.

Furthermore, the decentralisation process has also been undermined by a general lack of legal-regulatory coordination among government agencies, both agencies at the same level and between different levels of government. The national government has introduced most of its decentralisation (and recentralisation) legislation with minimal consultation and input from stakeholders at the provincial and district levels. At the same time, regional governments have acted largely autonomously in issuing district regulations, conducting little consultation with national government officials. "This lack of coordination has been especially problematic for district governments, as most have very limited legal expertise to ensure that the laws and regulations they issue are fully legitimate, are consistent with higher laws, and can be implemented effectively" (Barr et al 2006:124). The absence of an effective institutional mechanism for resolving contradictions that exist among laws and regulations issued by governments at the central, provincial and district levels complicated the situation even further. Many district governments argued for example that there was no legal basis for the claim that decrees issued by the Ministry carried a greater legal weight than a decree from a *Bupati*. Finally, in 2004 there were issued laws and regulations that assigned authority to the Minister of Home Affairs to review draft regulations before they are passed by provincial governments; and to Governors to review draft regulations before they are passed by district

governments. The intention was that this would increase coordination and lead to improved legislation by reducing the numbers of legal-regulatory contradictions and ambiguities. Although it is necessary with some kind of system of checks and balances, this system will clearly mean that the consent of higher levels of government is required for all policy initiatives in the regions, which may arguably reduce the autonomy of districts to pass laws.

The fiscal decentralisation process has led to a substantial redistribution of forestry sector revenues, with increased revenue flows particular to district governments. The widespread distribution of various forestry permits and timber licenses during 1999-2002 suggests that district officials in many forest-rich regions have viewed forests principally as a source of timber rents. This is however not surprising after having been on the sideline and watched the central government extracting often enormous timber profits from their areas during the Suharto period. The allocation of timber licences gave the district officials multiple benefits. They used it as a means to increase the district's formal revenue flows, and on the other side, these allocations often generated considerable informal profits for the agencies and individual officials involved in the licensing process. Barr et al (2006:126) states that "in this way, many observers have noted, the high level of corruption that characterized Indonesia's forestry sector through the Soeharto era also became decentralized". District timber permits became an important form of patronage at the local level for *Bupatis*, who often used them to secure political loyalties among key constituencies and to finance initiatives such as election campaigns. The distribution of large numbers of small-scale timber permits by district governments may also have facilitated illegal logging in some regions. It was often the case that they allocated different timber permits for areas that were much larger than the district forestry bureaucracy could effectively monitor.

The MoF began almost immediately after *Bupatis* began to issue large numbers of district timber permits in 1999 and 2000 to take aggressive measures to stop the allocation of such permits in the Forest Estate. These efforts intensified in 2002 with a series of ministerial decrees together with the issuance of Government Regulation 34/2002, which collectively rolled back much of the authority over forest administration that had been transferred to, or assumed by, district governments in the past years, and 'reconcentrated' this in the hands of the MoF. The central government has justified this process of recentralisation in the forestry sector, by saying that district governments have allowed, or worse, encouraged, widespread illegal logging and unsustainable forest management practices. Officials from the central



government frequently describe the allocation of district timber period (1999-2000) as a period of excess, “when district governments exercised little restraint or responsibility in seeking to obtain maximal benefits from regional autonomy” (Barr et al 2006:128). However, Barr et al (2006) questions if not these largely rhetorical arguments are aimed at directing the blame for Indonesia’s forestry crisis in the beginning of 2000 at the actions (or inaction) of district governments? The country’s forestry crisis was well underway before the decentralisation laws were introduced, and sustainable forest management was not achieved on any large scale during the three decades of centralised administration in the New Order period. To put it in perspective, by 2002 district governments had issued timber extraction and forest conversion permits covering at most a few hundred thousand hectares, while by contrast, during the New Order regime, the MoF issued HPH timber concessions covering over 69 million hectares of forested land. Moreover, there is little evidence that the concessions issued by the Ministry have been, or will be, managed any more sustainably than the areas allocated under district logging permits. The other argument mentioned; that district governments do not have institutional capacity to implement decentralised forest administration in an effective manner raises a number of questions about Indonesia’s decentralisation process. To what extent should the national government share the responsibility for this? It could be argued that the central government carried out the decentralisation process with little planning and preparation, and before the district governments were prepared for this authority. However, in recent years the Ministry has managed to recentralise much of the authority that had previously been decentralised (Barr et al 2006).

Many stakeholders have interpreted decentralisation to mean freedom to manage government affairs in a more suitable manner to local conditions and culture. However, the district governments have unfortunately not used the opportunity to adjust governance to local circumstances, as they have focused on the struggle for power at the local level. Even though they are closer physically to the country’s forest resources and the communities that depend on them, they do not seem to administer forests better than national counterparts, nor do they always show better understanding of local needs and aspirations. This was at least the case in the early years of decentralisation.

The lack of clear division of authority together with inconsistent regulations which are not enforced, “has resulted in an intense free-for-all competition over forests and other natural

resources” (Barr et al 2006:130). Moreover, it seems like decisions are made based on short-term benefits rather than long-term strategies. “At the local level, confusion over rules has frequently enabled village elites to control access to forests and to capture many of the benefits from forests, causing the marginalization of weaker parties” (Barr et al 2006:130)

It is evident that by encouraging small-scale logging, decentralisation has led to availability of more cash to rural communities in forest areas, at least between 1999 and 2002. Increased financial transfers from the central government have meant greater flexibility at the district level in the use of funds under district discretion. It is likely that increased district spending has had positive impacts on incomes for local stakeholders in many regions. The number of small-scale timber permits increased sharply in many forest-rich districts. Sometimes villagers were able to earn money by being directly involved in operating the small-scale concession, either by working individually or as members of cooperatives. However, this was not always the case, as case studies in Manokwari (Papua) and Malinau (East Kalimantan) showed that when investors and outside companies were involved, they often did not hire local villagers to work in the logging operations. Nevertheless, they often provided indirect benefits to local people through the payment of fees and provision of services to villages that were partly intended to improve the well-being of rural people. In many cases these benefits have been captured by local elites and have not been distributed equitably among other members of the affected communities. “Also there have often been conflicts among communities over access to forest resources, as communities have competed with one another to secure the economic benefits in their area or as they have sought to utilize those forests in different ways” (Barr et al 2006:131).

## **2.4 Papua Barat/Papua**

Although Papua is currently divided into two provinces, Papua and West Papua, in this chapter, I define ‘Papua’ to include both provinces. Papua Barat (West Papua) is now one of the 33 provinces in Indonesia. It is situated on the north-western part of the island of the country Papua New Guinea. Papua Barat encompasses the Bird’s Head Peninsula and the islands to its west. As mentioned Papua was a former Dutch colony which came under Indonesian control in the 1960s. In Papua one can find many of the last remaining tribal cultures in the world. Some tribes are hunter-gatherers, while others follow ancient agrarian traditions that pre-date Mesopotamia. There are at least 250 distinct languages and hundreds

more dialects spoken in Papua Barat. Each tribe is also autonomous with its own leaders, traditions and belief. All this unique cultural heritage is threatened by displacement, and forestry (WestPan 2005). According to the WestPan, the Canada's West Papua action Network, Papua is rich in natural resources, but the Government "relies on taxes from foreign extraction industries that devastate the environment and return few or no benefits to the Papuan people". They also say that the military is directly involved, by being engaged in illegal logging for example. It is said that Papua has the highest concentration of illegal logging operations in Asia. The illegal logging and mining have serious impact on the livelihood and traditions of the Papuan people, who rely on the land for survival. The clearing of traditional land does not only destroy their cultural heritage, but also create conflict among the indigenous people, foreign companies and Indonesian security forces (WestPan 2005).

Poverty in Papua remains high compared to Indonesian standards, and the economic development in Papua has been uneven. Part of the problem has been neglect of the poor with too little or the wrong kind of government support from Jakarta and Jayapura. (Jayapura is the capital of Papua province). One major reason for this is the absence of a developed road or river network, which makes the cost of delivering goods and services to large numbers of isolated communities extraordinarily high. Another problem that has contributed to underdevelopment is intermittent political and military conflict and tight security controls. However, generally this has not been the main factor to underdevelopment in the area with the exception of some border regions and a few pockets in the highlands (Resosudarmo et al 2009:21).



Figure 2: Map of Papua

### 2.4.1 Special Autonomy

Since Papua was annexed by Indonesia in 1969 there has been a tension between Papua and Jakarta. Many among the Papuan elite have indicated that they would prefer the formation of an independent Papuan state. Thus, there has been a longstanding struggle for independence, most of the time low-levelled, but sometimes quite violent, and occasionally guerrilla activity in Papua, mostly led by the loose political organisation called Free Papua Movement (OPM). Another issue that did not help the tensions between Papua and Jakarta was that most of the revenues generated by the region's natural resources went straight to Jakarta and gave only limited development to indigenous Papuans. Resosudarmo et al (2009:23) argue that the concerns of Papuans are well justified: "the central government has been unable to support a level of social and economic development in Papua commensurate with the value of the rents generated from natural resource exploitation in the province". The years from 1998 to 2001 were the most critical political time in the relationship between Jakarta and Papua. The separatist hopes in Papua intensified with the resignation of President Suharto in mid-1998 and East Timor's successful independence. As mentioned in the history of Indonesia, the new president Abdurrahman Wahid "sought to maintain good relations with the Papuan elite and

endorsed the development of a draft bill on special autonomy for the province” (2009:23). After a period of debates, the national parliament finally enacted Law No. 21/2001 on Special Autonomy for Papua in late 2001.

The Special Autonomy Law brought hope among the Papuans that the province would get more control over the revenues from natural resource extraction and a far greater say in the concern of economic and political development. However, while the provincial government has indeed received increased revenues, the approach of the central government to implementing the new law has disappointed various groups in Papua, especially the Jayapura elite. Specifically the central government was criticised for being too slow in establishing the political institutions required by the Special Autonomy Law, together with the deliberate weakening of these institutions and the decision to split Papua into two provinces. Thus, this led to renewed resentment against the central government, leading to further conflict between Jakarta and Jayapura. The high level of disappointment among Papuans is shown through the decision of the Papuan Tribal Council (Dewan Adat Papua) and other Papuan groups to reject the largely unimplemented Special Autonomy Law in August 2005. There were three issues in particular that contributed to souring the relations between Jakarta and Jayapura. The first concerned the establishment and role of the Papuan People’s Assembly (MRP). Second, was the transfer of authority for the management of the region’s natural resources, while the third issue concerned the administrative division of Papua. These are concerns among the Papuan elite, while the “concerns of ordinary Papuans are more closely related to the recognition and fulfilment of their basic needs and associated rights, and acknowledgement of their distinct identity, history and culture” (Resosudarmo 2009:26).

The political situation in Papua is likely to remain challenging for some time to come, which is probably expected given the size and diversity of the region. Resosudarmo et al (2009) still emphasises that it is important to remember that there is general agreement that special autonomy provides the best way forward for resolving the various challenges in Papua. “Accordingly, there is a need for political commitment on the part of all parties to implement the Special Autonomy Law” (Resosudarmo et al 2009:27). It helps ensure that Papua remains part of the unitary state of Indonesia, and more importantly it provides huge opportunities to improve the welfare of Papuans. The Special Autonomy Law gives local governments increased budgets and far greater freedom to construct their own development programmes. According to Resosudarmo et al (2009) the future resolution of the ‘Papua problem’ now lies

in the hands of the Papuans themselves, after several decades of domination by Jakarta, they now have more appropriate means to significantly improve people's living standards.

### **2.4.2 Social Change**

The population in Papua have been diverse for a long time, characterised by competition between local ethnic groups seeking to improve their standard of living. The high rates of in-migration since the 1970s have increased the population significantly and it has become even more diverse. Although there is still competition between local groups, many indigenous Papuans now view the migrants as a more significant threat to their ability to improve their standard of living. However, the increased diversity of the population can also be an opportunity to improve the knowledge base of the society, and provide the people with more opportunities to build a better society. The Papuan population grew rapidly during the 1980s, however, the population growth rates have been slowing since 1990, largely due to lower rates of in-migration in the 15 years to 2005. The population growth rate is highest in the major urban areas, like Sorong, Jayapura and Timika. The large number of migrants moving to Papua is one important reason for the high urban growth rates. Migrants tend to live in the cities, while indigenous Papuans continue to live in rural areas, mainly in the central highlands and along the south coast. Furthermore, in 2000, over 86 per cent of indigenous Papuans living in rural areas were engaged in agriculture (Resosudarmo et al 2009).

In general, there has been an improvement on social indicators in Papua over the last two decades. However, many would argue that the speed of the improvement has not been fast enough. Compared to the rest of Indonesia the improvement is quite poor, which reflects the extreme difficulty and high cost of delivering educational and health services to small, relatively isolated groups, where the majority of the indigenous population lives.

Resosudarmo et al (2009) claim that this is probably the most important development challenge Papua is facing. According to numbers in 2002, Papua was the second last on the HDI ranking of all the provinces in Indonesia, and the numbers also show that Papua had the widest within-province variation (HDI score ranging from 27 in the district of Jayawijaya to 73 in the municipality of Sorong).

A large number of new schools have been established in the last three decades. The net enrolment ratio in primary education rose from 55 per cent in 1984 to 70 per cent in 1991 and

81 per cent in 2000. It is still below the national figures, but it indicates a significant progress. However, the net enrolment ratio at junior secondary level remained stuck at around 40 percent, and should be a matter of concern. There are significant variations across regions within Papua as well, and urban areas have typically higher ratios. At the senior secondary level the gap between urban and rural areas is especially evident: “over two-thirds of the total student population aged 16-18 was attending school in urban areas in 2005, but only one-third in rural areas” (Resosudarmo et al 2009:33). Human capital has clearly improved in Papua, but the province has still a long way to go to catch up with the rest of Indonesia.

Estimates show that the Papuan workforce have increased at an average rate of 4.3 percent per year between 1990 and 2003. The agricultural sector still dominated in 2003, employing about 75 per cent of the workforce, while the mining industry – largest sector in the Papuan economy only employed indirectly less than one per cent of the workforce. The government sector expanded rapidly in the 1980s then grew relatively slowly in the 1990s. It seems however likely that rate of growth has begun to rise sharply again due to the decentralisation and the granting of Special Autonomy (Resosudarmo et al 2009).

The amount of community health centres (puskesmas) and hospitals increased substantially from 1980 to 2002. Nevertheless, the progress of improving the health status of the population has been slow. Diseases like diarrhoea, cholera, dysentery, tuberculosis and malaria are very frequent. Another problem is that famine occurs regularly in some areas of Papua, especially in isolated regions in the highlands. It often takes a long time to mobilise assistance, and even then the help may be further delayed due to bad weather and poor transport infrastructure. “Poor communications hinders efforts to avert food shortages in remote areas, and hampers rapid response measures when communities are affected by a crisis” (Resosudarmo et al 2009:34).

### **2.4.3 Economic Development**

In general, the Papuan economy has been growing fairly rapidly since the 1970s. If one include mining in the provincial GDP, the Papuan economy has grown significantly faster than the national average, however, if mining is excluded, the economy has grown at about, or a bit below, the national average. Papua performs better than e.g. neighbouring country Papua New Guinea in several indicators like per capita GDP, infant mortality, school enrolment, life expectancy and literacy. However, Papua has a far higher maternal mortality rate and a lower

score on the human poverty index (HPI). Resosudarmo et al (2009) argue that Papua's low score on the poverty index is a critical indicator of continuing underdevelopment in the province.

Papua's trade is dominated by non-renewable natural resources, together with potentially renewable resources (forestry and fisheries), which have been exploited more rapidly recently. "A major challenge facing Papua is how to promote greater diversification of trade towards more sustainable agricultural activities, such as estate crops." (Resosudarmo et al. 2009:39).

Mining has been the most important sector in Papua's economy for a long time. It has contributed more than 50 per cent of Papuan GDP since the mid-1970s, - PT Freeport Indonesia being the dominant player. There are at least three other important economic sectors, besides mining. The first being agriculture, particularly food crops, forestry and fisheries. The second important sector is trade, hotels and restaurants, and the third is transport and communications. The growth in the transport and communication sector could support the development of agriculture in Papua. However, so far most of the growth has been between the expanding urban areas of Jayapura, Timika, Sorong and Manokwari, and between them and the rest of Indonesia. However, improved communication networks may create opportunities for Papua to rely more on the agricultural sector and be less dependent on the mining sector. Production of palm oil could expand if the national demand for the commodity is good. "However, the negative effects of deforestation on the local environment should be a major consideration in the selection of new areas for this and any other plantation crop" (Resosudarmo et al. 2009:40).

#### **2.4.4 Poverty – The key development issue**

The overall poverty rate remains substantially higher in Papua than at the national level. The proportion of poor people was around twice the national average in Papua throughout the 1990s and early 2000s (Resosudarmo et al 2009). On the human poverty index (HPI) Papua ranked number 28<sup>th</sup> among Indonesia's 30 provinces. Considering that Papua is one of the richest provinces in terms of natural resources and associated economic indicators, the high levels of poverty are alarming, and certainly constitute a major development challenge for Papua. Furthermore, as mentioned before, the proportion of poor people living in rural areas is far higher than the proportion living in urban areas, and it is giving Papua the highest ratio of



rural to urban poor in Indonesia. Poverty are connected with education, showed by the fact that according to a study from 2004, very few poor people had a high-school diploma or tertiary degree, and most worked in the agricultural sector, -in many areas 80 per cent or more. As mentioned earlier, most indigenous Papuans live in rural areas and constitute the majority of the population, and most are engaged in agriculture. Together with the statistics that indicate that the majority of poor people live in rural areas, have low educational attainment and work in the agricultural sector. Even though it is difficult to document from the available statistics, it seems clear that the vast majority of poor people in Papua are indigenous Papuans.

There is a need for even more and deeper research to understand the main factors that contribute to poverty in Papua. However, Resosudarmo et al (2009:47) say that so far, it seems clear that “mining revenues and successive government budgets have mainly benefited urban areas, creating enclaves of rapid development in the towns and cities while rural areas lag behind.” Furthermore, it seems that people living in heavily populated but isolated regions like Jayawijaya and Paniai are especially vulnerable to poverty. It seems like poor communications and low agricultural productivity is a major constraint to increasing incomes in these regions. This suggests that important strategies for poverty alleviation in Papua would be to improve the income of farmers, facilitate greater participation in the non-farm economy in rural areas and connecting rural economies to urban economies.

Although Papua still struggles with poverty and low level of development, Resosudarmo et al. (2009) believe there are reasons to be optimistic about the future for Papua. The implementation of Special Autonomy is contributing to the resolution of the political conflict between Jakarta and Jayapura. Furthermore, after decentralisation the regional government has received large funds from the central government. Hence, Papua has now far greater flexibility to design its own development programs, and this is important as locals are most likely to better know what is required to develop their own society with such dramatic variations in topography, ecology, settlement patterns and communication networks.

Papua has clearly benefited from the implementation of decentralisation and special autonomy, and it has given the province a great opportunity to dramatically improve the living standards of the population. The flow of funds to Papua is substantially higher than ever before, and decentralisation has been more extensive in Papua than in any other province in

Indonesia. It has brought regional governments closer to the people and given them more freedom to implement their own programmes. However, the short-term challenges and costs are substantial, with a large number of new government structures that need to be put in place after the increase in number of districts. Further, the increase in the public budget has created opportunities for widespread corruption, “especially given the weak, and sometimes nonexistent, governance structures needed to guide public administration and economic management” (Resosudarmo et al 2009:59). Another huge challenge is the transition from a centralised to a decentralised regime, and from local governments without funds and dictated from the outside, to governments with large surpluses supported by the local people and with the potential to develop and implement local initiatives. The political and governmental institutions need to be established and strengthened in Papua, and should be a central goal of government efforts even though it may take a while. Decentralisation and special autonomy has had a great impact on the region. The regional income increased a lot between 2001 and 2002, and it has continued to increase, although not as dramatically. Considering the situation in Papua one can conclude that the main constraint to development is not lack of funds, “rather, it is the ability of Papuans themselves to use that money wisely and generate appropriate development policies” (Resosudarmo et al 2009:65).

There are many challenges facing Papua if governments at all levels are to formulate and implement policies that can give the population a better standard of living. Resosudarmo et al. (2009) highlights four of these challenges; the increase in the number of districts, corruption, public infrastructure and the investment climate.

The *formation of new districts* poses a number of associated problems. The administrative costs of establishing a new district are significant, for one thing. They also include the costs of transferring and recruiting staff, constructing new offices and establishing new political and governmental institutions. Secondly, it would take a long time to “establish strong new political and governmental institutions that function properly and deliver development to the local community” (Resosudarmo et al. 2009:67). Also, in the meantime, government programs are likely to be disrupted as the new administrations seek to adjust them to the politics of the new district head. Lastly, local politics is typical in turmoil before and after establishing a new district. Plans for the district are thrown into confusion and quite often it leads to physical conflict among local groups, especially different ethnic and language groups. Members of local elites may view the establishment of a new division as a possibility for

them to increase their political influence, however “the prospect of being able to gain government approval for the division of an existing district creates political instability and uncertainty” (Resosudarmo et al 2009:67). All these issues concerning division of districts are likely to disrupt the progress of local development in Papua.

Spreading of *corruption* is claimed to be one immediate effect of Indonesia’s decentralisation policy. There was corruption under the Suharto era as well, but then it was “a centralised ‘one-stop shop’” (Resosudarmo et al 2009:67). With the decentralisation of governmental power and authority, corruption has become much more diffuse. It has become more fragmented and now involves government officials, military and police, and legislative members at the national and regional levels. Corruption has increased dramatically in the regions. Furthermore, for a variety of reasons it seems like Papua has greater opportunities (and temptations) for corruption than other parts of Indonesia. One reason being the huge amount of funds that are being disbursed in the region. Secondly, the control by higher-level governmental institutions and judicial bodies is weak, particularly in Papua where many of these institutions are recently formed. The control by the public through political and social institutions is also weak due to the fact that a high portion of the population has little education and lives in relatively isolated rural areas. Also, a lot of the revenue comes from natural resource rents and is concentrated in just a few regions. There is therefore a strong temptation for local officials to misuse money from the resource sector. “In this respect Papua is just as exposed to the ‘curse’ of natural resource abundance as many other resource-rich regions and countries” (Resosudarmo 2009:69). Particularly in the districts that are rich on resources some local government leaders have become very powerful and are often being referred to as ‘kings’. As well as determine spending priorities they also have the capacity to levy various taxes and charges. There is significant evidence that corruption has become such a huge problem in Papua that it may hamper future development. Large sums of money have disappeared into the pockets of high-ranking government officials. There are several examples of government officials being involved in corruption. One being the district head in Jayawijaya district who was suspected to have created several fictitious projects in 2002-03 to cover his illegal activities. Allegedly the loss of public revenue from his activities amounted to as much as Rp 56 billion (About 6.5 million US Dollars). There are also cases of people being involved in illegal trading activities. An example is four military officials and the head of the forestry service in Manokwari, together with four police officials in Papua, that were accused in 2005 of being involved in illegal logging activities. Fortunately, the central

government has taken several initiatives to combat corruption. The Commission for the Eradication of Corruption (KPK) was set up in 2002 to improve the effectiveness and efficiency of efforts to eradicate criminal acts of corruption (Law No. 30/2002). The commission has succeeded, in collaboration with other authorised institutions, in identifying several cases of alleged corruption by regional government officials and members of parliament and has brought them before the courts. So far the progress has been visible but slow in Papua. It will take time to decrease the high levels of corruption in Papua. However, as more cases are brought before the courts and the monitoring of the judicial system gets better, the number of successful prosecutions should increase, hence acting as a disincentive to misuse public funds. It is important that corruption is being brought under control to enable governments and other agencies to have confidence in the integrity of their development programs (Resosudarmo et al 2009).

In 1969 when Papua became a part of Indonesia the *public infrastructure* was very poor. There was a very slow progress in the 1970s and 80s. However, the situation improved during the 1980s and early 1990s, and by 1994 Papua had a higher growth rate than the national average. Nevertheless, the pace of growth slowed dramatically between 1994 and 2004. Papua had only 9.8 kilometres of roads per 1,000 square kilometres of territory in 2002. Better road transport is necessary for the expansion of economic activity and trade in many highland areas, on the larger islands and along some parts of the north coast. River transport is also a preferred mode of transport over large parts of the lowlands in southern Papua. Furthermore air transport has increased in recent years; however this is of limited significance for most of the population due to the high cost of air travel. Electrification has also lagged behind in Papua compared to the rest of Indonesia. Some of the reasons for Papua's poor infrastructure are the very poor initial conditions in the 1960s, the hostile terrain of the region and low population density, as well as the high cost of building infrastructure by national and international standards. Even though there were periods in which the infrastructure performed better in Papua than the national average, the overall rate has not been fast enough to allow the region to catch up with the rest of Indonesia. However, Resosudarmo (2009) emphasise that with the large amounts of revenue that are now flowing to the provincial and district government significant improvements should be possible.

Registered domestic *investment* has consistently been small in the entire period between 1999 and 2005. Large investments tend to be concentrated on mining. "Thus, foreign investment

jumped in 2001, when BP invested around US\$5 billion in a large liquefied natural gas project in Tangguh” (Resosudarmo 2009:70). The implementation of that project has been slow, and was only 30 per cent complete in February 2006. Besides mining, investment has typically been in forest-based activities. Papua had around 10 million hectares under forest concession in 2003 which is just under one-third of the province’s total forest cover. By national standards this was a very large area, accounting for approximately 30 per cent of the total area under forest concessions in Indonesia. As mentioned briefly above, it has been a major challenge to appropriate the benefits from forest exploitation for local and regional population, “given problems of supervision of private sector logging and the involvement of powerful political and military figures in forestry operations” (Resosudarmo et al 2009:71). Furthermore, investment in estate crops has been lower in Papua than in the other large islands. The plantations are mainly producing coconut and palm oil. The government set a goal of increasing the area under estate crops to 170,000-200,000 hectares by 2006. However, Papua will still only account for one per cent of the total area used to estate crops in Indonesia even if this target is achieved. And this is despite having a land mass that accounts for around 20 per cent of the national total.

Evidently there are both many opportunities and challenges for Papua. Decentralisation and Special Autonomy presents opportunities for more rapid development in the region. The policy of Special Autonomy provides a relief in the disagreement between the Papuan elite and the Indonesian government about Papuan independence. Furthermore “it has given the Papuans greater control over their own resources and their own development path” (Resosudarmo et al 2009:72). Increased revenues from both the special autonomy and the decentralisation policies are available to establish development programs. For example was the provincial income in the 2005 budget almost four times higher than before special autonomy was implemented. In addition, regional governments have now much more say in how these funds are spent. If this increased revenue is used wisely on strategic infrastructure, public services, and on improving the business and investment climate and support the development of other sectors than mining, “Papua should be able to lay a strong foundation for future economic and social development” (Resosudarmo et al. 2009:72). Special attention should be given to the agricultural sector and rural development since development in these areas has the potential to bring more equitable growth throughout Papua. However, if the revenue is spent in a suboptimal way, e.g. if it used to create new districts or lost through corruption, Papua risks losing the “present momentum” to build a strong base for future

improvements in welfare. It is likely that the social and economic gap between Papua and the rest of Indonesia only will widen if the present opportunity for advancement is lost. Instead of too much emphasis on looking for additional funds, the government efforts of Papua should rather focus on wise allocation of present revenue and the creation of effective and efficient administrative institutions.

## ***2.5 Manokwari Utara***

Manokwari Utara (North Manokwari) is a sub-district (kecamatan) to the municipality of Manokwari town (kotamadya). It is situated on the north-east coast of Papua Barat, also known as the Bird's Head Peninsula. According to BPS, the area is 622,79 square kilometres (BPS 2010). In 2007/2008 there were 23 villages (kampung) in the sub-district and about 3700 citizens. The villages stretch along the coast and the area is covered in forests. The people originate from the highlands (Arfak Mountains) as well as different islands in the area. Furthermore there are people who have migrated from Manokwari town, and there are also a few Dutch descendents. The main occupations are farming and fishing, and some are civil servants. In addition, some landowners earn money from selling timber.

### 3.0 - REDD+ description



**Photo 2: Deforestation in Manokwari Utara**

#### **3.1 Introduction**

REDD+ is an abbreviation for Reducing Emission from Deforestation and forest Degradation. The ‘+’ was added later and includes the ‘role of conservation, sustainable management of forests and enhancement of forest carbon stocks’. Deforestation and forest degradation through e.g. agricultural expansion, destructive logging, infrastructure development and conversion of land etc. stands for nearly 20% of global greenhouse gas emissions. That is more than the entire global transportation sector and second to the energy sector. Scientists have come to agreement that in order to constrain the impacts of climate change the global average temperature has to not increase more than 2 degrees Celsius. For that to be possible, reducing the emissions from the forest sector is a crucial measure, together with other mitigation actions (UN REDD, About REDD). REDD+ is a program set in motion by the international society as an effort “to create a financial value for the carbon stored in forests, offering incentives for developing countries to reduce emissions from forested lands and invest in low-carbon paths to sustainable development” (UN REDD, About REDD). It is predicted that the financial flows from developed to developing countries could reach up to US\$30 billion a year for reduction of greenhouse gas emissions. Hence, this significant flow of money could lead to a meaningful reduction of carbon emissions as well as “support new,

pro-poor development, help conserve biodiversity and secure vital ecosystem services” (UN REDD, About REDD). Furthermore, the maintaining of forest ecosystems can contribute to increased resilience to climate change. To achieve these multiple benefits, REDD+ requires full engagement and respect for the rights of Indigenous Peoples and other forest-dependent communities. However, REDD+ activities in developing countries must not be a substitute for deep cuts in developed countries’ emissions. Both REDD activities together with commitment from ‘Annex 1’ countries to reduce their own emissions is critical to successfully address climate change.

### **3.2 Brief history of REDD+**

In 2005, discussion only focused on ‘reducing emissions from deforestation’ (RED). However, it became clear that forest degradation was an even bigger problem in some countries than deforestation, hence the second D, ‘avoided degradation’ was officially endorsed at the 2007 COP13 in Bali, and RED was extended to ‘reducing emission from deforestation and degradation’ (REDD). Further, it was recognised that “there could be climate benefits not only from avoiding negative changes (deforestation, degradation) but also from enhancing positive changes, such as conserving and restoring forests” (Angelsen 2009:16). This was expressed as the ‘+’, and at the 2008 COP14 in Poznan ‘*reducing emissions from deforestation and forest degradation in developing countries (REDD); and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries*’ (REDD+) became the official language.

The global REDD+ system is gradually taking shape at meetings of the United Nations Framework Convention on Climate Change (UNFCCC), in particular at the annual Conferences of the Parties (COPs) (Angelsen 2009). The Parties are trying to come up with an agreement that will include REDD in a post-Kyoto regime. The last COP meeting was in Cancun December 2010.

The outcome of the UNFCCC meeting in Copenhagen in 2009 was a “Copenhagen Accord” negotiated by heads-of-states, and is a non-binding political statement outlining principles to keep global warming from rising more than 2 degrees Celsius. The Accord noted the important role of REDD+, “building on the political support that has been stated in several different meetings since the Bali Conference of the Parties in 2007” (WRI Daviet 2010).



However, many were disappointed with the outcomes, complaining that the Parties did not go far enough to adapt to the development of actions for REDD+. Nevertheless, since the Copenhagen negotiations, countries have reopened the REDD+ decision text, and made the next COP meeting in Cancun a bit more successful (WRI Daviet 2010).

The Cancun climate talks concluded on December 11 2010 with the Cancun Agreements; a set of decisions that hopefully will move international action on climate change forward (WRI Morgan 2010). A turning point for the negotiations is that the Agreements solidify the role of UNFCCC at the centre of international climate policy and cooperation is moving forward. Morgan at the World Resources Institute (2010) says that there was progress in several key areas in Cancun, which enabled decisions on core issues; “in particular, the Cancun Agreements bring countries’ greenhouse gas emissions reductions under targets under the UNFCCC process, ensure greater transparency in emissions reporting by all countries, and establish a ‘Green Climate Fund’ to help facilitate financial support to developing countries”. However, there were shortcomings and issues that need to be sorted out on the way to the next round of climate talks in Durban, South Africa in 2011. Even with the decisions in Cancun, countries will “still fall short of what the science says is needed to prevent the worst impacts of climate change and to sufficiently support countries in coping with the impacts” (WRI Morgan 2010). The next steps will be crucial, and hopefully it will be possible to make some final decisions in Durban so the operationalisation can begin. WRI (2010) mentions some questions that will need to be resolved:

- Who will use the information about how safeguards are being promoted and supported?
- How will the information be used to ensure real change happens on the ground?
- Will this empower REDD+ parties and donors to work together to track improvements in governance as part of the development of national monitoring systems?

The Parties will need to work on these issues before and during the next round of climate talks, but at least “this agreement shows that countries are willing to have difficult discussions and still come to agreement, which is a good start, given the discussions ahead”, says the climate experts from the World Resources Institute (WRI 2010).

### 3.2.1 UN-REDD

The UN-REDD Programme is the United Nations collaborative Programme on Reducing Emissions from Deforestation and forest Degradation in developing countries. The Programme was launched in September 2008 by the UN Secretary-General and the Norwegian Prime Minister, and it builds on the power and expertise of three UN organisations; FAO, UNDP and UNEP. The goal is to assist developing countries prepare and implement national REDD+ strategies.

The UN-REDD Programme gives support to various countries, currently 29 partner countries in Africa, Asia-Pacific and Latin America, of which 12 are receiving support to National Programme Activities. These 12 pilot countries are receiving funding from the Programme's Policy Board. These funds help to support the development and implementation of national REDD+ strategies, and seven of these countries, including Indonesia, are now in their implementation phase. The countries that do not receive direct support to national programmes engage in a number of other ways; "including as observers to the Programme's Policy Board, and through participation in regional workshops and knowledge sharing, facilitated by the Programme's interactive online workspace" (UN-REDD Programme).

In addition to support to countries, the UN-REDD Programme is also working with global activities. The Programme brings together technical teams from around the world "to help develop analysis and guidelines on issues such as measurement, reporting and verification (MRV) of carbon emissions and flows, ensuring that forests continue to provide multiple benefits for livelihoods and the environment, and supporting the engagement of Indigenous Peoples and Civil Society at all stages of the design and implementation of REDD+ strategies" (About UN-REDD Programme). The Programme also tries to build consensus and knowledge about REDD+ to make sure that a REDD+ mechanism is included in a post-2012 climate change agreement.

Norway was the first and largest donor to the UN-REDD Programme in 2008, and the Programme is actively looking for more donors to meet the increasing demand from countries that want support from the Programme.

In order to coordinate and streamline support to national REDD+ strategies, the UN-REDD Programme works closely with the Forest Carbon Partnership Facility (FCPF) and the Forest Investment Program (FIP). Other important partners of the Programme are the Global Environment Facility (GEF), the UN Forum on Forests (UNFF), the International Tropical Timber Organisation (ITTO) and the UN Framework Convention on Climate Change (UNFCCC).

### **3.3 Central REDD+ aspects**

#### **3.3.1 What is REDD+**

Basically REDD programmes reward developing countries for reducing their deforestation rates. It has been proposed as a type of Clean Development Mechanism (CDM) where developing countries can partner with developed countries and receive incentives to conserve their forests. The developed countries help developing countries to control deforestation through e.g. financing, technology transfer, and other economic incentives, while receiving carbon credits in return. Forests play a huge role in both people's everyday life as well as on the global market. Forests contain 70 % of the world's biodiversity and it also provide services such as soil protection and flood control as well as supporting the subsistence livelihoods of up to 300 million people worldwide (Davis 2008 in Dominguez 2009). Furthermore, "forests are a form of carbon sink which naturally sequesters a large amount of the carbon dioxide that might otherwise be in the atmosphere. It is estimated that forests hold about 50 % of the world's terrestrial carbon" (Dominguez 2009).

The main forces that drive deforestation are development in the form of expanding agricultural land and infrastructure such as roads as well as increased demand for timber and/or timber-products. Hence, it is profitable to deforest, and thus the incentives for conserving the forest have to exceed the incentive to cut the forest. According to Dominguez (2009) it can be difficult to enforce laws and regulations in many countries and therefore a global REDD+ system of incentives could work better. In spite of this, there were no mechanisms for combating deforestation included in the Kyoto Protocol. It did include an 'Afforestation and Reforestation' clause, but there are various reasons for conservation being preferable. One example is the issue of reforestation; if it is not carefully managed it can include projects that are not actual forests, like palm tree plantations and other monocultures.

Another issue is that existing forests capture and store carbon more effectively than reforested or afforested ones. Furthermore, in an economical sense, it is more cost effective to conserve forests than to reforest, both in sense of real cost and efficiency in carbon sequestration.

There is strong commitment among several actors to reduce deforestation in the post-2012 climate agreement, and REDD+ would be an important part of such an effort. There are examples of existing models of REDD-agreements that are successful, e.g. the JUMA project in Brazil. It has “been successful in partnering indigenous peoples of the Amazon with the Brazilian government and international governments in a system where the indigenous people get direct financial compensation for their conservation efforts” (Viana, 2009a in Dominguez 2009). However, not all projects are as successful and there are a number of challenges posed in drafting the post-2012 climate change protocol in regards to REDD+. There are issues that need to be thoroughly considered in order to ensure that the REDD+ programme is actually encouraging conservation and that carbon credits are not awarded until net decrease in carbon emissions. “Policies under REDD must not only include mechanisms that address the issues of permanence and leakage, but must also establish a baseline, address the issue of additionality, and include funding for implementation and enforcement” (Dominguez et al 2009:3).

A key stone of any national REDD+ programme is a reliable, credible system of *measuring, reporting and verifying (MRV)* changes in forest carbon stocks. A recent review shows that there are not many countries that have even the minimum capacity which is needed for measuring and monitoring. Furthermore, most developing countries have a long way to go before they are ready to fully participate in an international system that provides compensation for REDD+ actions based on results. “MRV relates to both actions on the ground (i.e., that change forest carbon stocks) and REDD+ transactions (i.e., compensation and financial transactions or transfers)” (Angelsen 2009:88). MRV of transactions is more important for implementation, but is no so significant in the readiness phase, while MRV of actions is important in the readiness phase, and for building capacity.

One of the major concerns in the REDD+ debate is the *permanence* of emissions reductions. The questions debated are for instance; how to make sure that a forest area saved today not will be destroyed tomorrow? Who should be held liable? And how can REDD+ contracts and

financial mechanisms be designed to ensure permanence? (Angelsen 2008). Distribution of benefits under a REDD+ contract will have permanence implications, “especially when it comes to a contract that is dealing with carbon sequestration on indigenous lands” (Doyle 2009:93). So, to ensure project permanence landowners must be “adequately incentivized”.

Avoiding carbon *leakage* is another important issue related to REDD+. Carbon leakage meaning that the implementation of REDD+ policies in one area, may lead to increased emissions of carbon in another area. “Leakage can occur whenever the spatial scale of intervention is inferior to the full scale of the targeted problem” (Angelsen 2008:65). If for example a ‘payment for environmental services’ (PES) programme is rewarding a landowner for not deforesting a certain area during five years, however, if the owner is then shifting all planned deforestation to another area that is not PES-enrolled, mitigation would be entirely offset by leakage (Angelsen 2008).

To achieve *additionality* is a fundamental prerequisite for any REDD+ project. This means that a project must generate emissions reductions that are additional to what would have happened without an intervention and the attributed carbon revenues. An examination of land title, logging concessions, national protected area legislation and government legislation regarding forested areas is necessary to address additionality comprehensively (Doyle 2009).

One of the most critical elements of REDD+ is how to set national *baselines or reference lines/levels*. This will have profound implications for the environmental effectiveness, cost efficiency and distribution of REDD+ funds among countries. However, there is still no agreement on how to set these baselines. It is suggested to use historical deforestation, but many countries do not have reliable data on that. “Similarly, there is strong support for including ‘national circumstances’, but the practical implications of that are yet to be worked out” (Angelsen 2008:53). Due to these problems, there is a lot of frustration around the idea of working out baselines. However, the question of when (and how) to start crediting emission reductions is not avoidable.

The financing of REDD+ can be accomplished in two different ways; through aid (from governments, international organisations, NGOs, and other private sources) or through market mechanisms as part of the International Carbon Market (Eliasch Review 2008, in Dominguez 2009). Both ways have significant advantages and disadvantages that need to be considered.

Financing REDD CDM projects by market-based approach has the advantage of being implemented more quickly due to market demands and also being more efficient at a lower cost. However, if it is administered by market mechanisms there is less incentive for the development of improving governmental regulation on sustainable forest management and deforestation. "Because of the lack of unified control it can be difficult to monitor the permanence and additionality of a patchwork of market funded projects and to prevent leakage into other forested areas" (Viana, 2009a in Dominguez 2009).

Government implementation of REDD+ would normally have a unified baseline and management strategy and thus it is more likely to prevent domestic leakage. Government sponsorship of REDD+ increases the development of domestic land use policy and it also facilitates an organisational structure that "fits more easily into the post-2012 international carbon market" (Viana, 2009a in Dominguez 2009). Nevertheless, there are also negative aspects with government funding especially since they are less flexible than market strategies, which are more adaptive to regional circumstances. According to Dominguez (2009) it is therefore important that market-based projects are partnered with government for oversight and monitoring as well as enforcement. However, integrating these collaborative nation-wide programmes into the post-2012 agreements may undermine national sovereignty due to international governance and regulation. To successfully include REDD+ as a potential alternative CDM it will require that financial platforms are flexible and can accommodate to fluctuating availability of funding sources and also to each country's unique circumstances. "There need to be efforts to increase financial capacity and efforts to find funding for resource gaps mainly through market mechanisms" (Eliasch Report, 2006 in Dominguez 2009). The fact that the majority of CDM investment has until now been concentrated in countries with more wealth is an indicator that there is a big opportunity for expanding market mechanisms into many least developed countries (Viana, 2009a, in Dominguez 2009).

REDD+ is considered a risky investment, so there need to be developed baselines and programmes for how it is going to be implemented and set in motion. For example carbon insurance through baselines and protection mechanisms could give companies incentives to invest by guaranteeing them offset credits for their investment. Furthermore, improvement is needed in government land use laws, resource tariffs, monitoring programmes, establishing national emission reference levels and general tax incentives in order to discourage

deforestation while at the same time linking programmes to local and regional carbon markets (Eliasch Report, 2006 in Dominguez 2009).

### **3.3.2 Three options for the scale of REDD**

A key question in the debate is at what geographical level of accounting and provision of incentives for REDD activities should be offered. Should it be at sub-national (or project) level; national level, or nested approach (both levels)?

A sub-national or project approach means direct support to projects, and it opens for early involvement and wide participation and is also attractive to private investors. However, a challenge with this approach is the trouble of leakage and the broader forces that are driving deforestation and forest degradation cannot be addressed.

National approach means direct support to countries which creates country ownership and a broad set of policies while also addressing domestic leakage. However, in the short to medium term this approach is not feasible for many countries. “It is also susceptible to governance failure, and may be less likely to mobilise private investment or involve local government” (Angelsen 2008:40).

A nested approach will combine the two previous approaches, and is the most flexible one. It allows countries to start sub-national activities and gradually move to a national approach. “The nested approach allows both approaches to coexist in a system where REDD credits are generated by both projects and government, thus maximising the potential of both subnational and national approaches” (Angelsen 2008:40). The challenge will however be how to harmonise the two levels.

### **3.3.3 Different phases of REDD**

Central REDD+ issues and how it will be implemented is still under development and debate. Nevertheless, many countries have issued proposals on how to incorporate a REDD+ mechanism into a post-2012 climate regime. One increasingly accepted proposal is for REDD+ implementation in three, possibly overlapping, phases. The first phase is called the ‘readiness’ phase, which means that countries prepare a “national REDD+ strategy through inclusive multistakeholder consultations, start building capacity in monitoring, reporting and

verification (MRV), and begin demonstration activities” (Angelsen 2009:14, 15). The second phase ‘more advanced readiness’ focuses on implementing policies and measures (PAMs) to reduce emissions. The third phase is full UNFCCC ‘compliance’; tropical forest countries are compensated only for reduced emissions and enhanced carbon stocks relative to agreed reference levels.

The advantage of this three-phased approach is its flexibility; countries can participate according to their capacity and they have incentives to progress from one stage to the next. Thus, a wide range of tropical forest countries will be able to take part in REDD+ as it is possible to start on different phases dependent on how well-developed systems the respective country has. Countries with sophisticated MRV systems and sound institutional frameworks may start at phase 3, while other countries with less sophisticated MRV systems can start at phase 1 or 2, and at the same time have incentives to develop their systems so that they can graduate to phase 3. By graduating from phase 1 to 3, countries generate added and more reliable income from REDD+, and is thus an incentive to do so. The sources of funds will also vary depending on the phase of REDD+ implementation. Funding will mainly come from public sources in the early phases (1 and 2). There could also be funding from voluntary markets. “As countries develop more sophisticated MRV systems in phase 3, direct financing by compliance markets becomes feasible” (Angelsen 2009:16). Carbon compliance markets could leverage more predictable and longer-term funding than public funding, hence, countries that reach to phase 3 could generate significant income from reductions in forest emissions.

### ***3.4 REDD+ in Indonesia***

Indonesia is of high interest on the issue of climate change and REDD+, mainly because it is an island country. “The combination of high population density and high levels of biodiversity, together with a staggering 80,000 kilometres of coastline and 17,500 islands, makes Indonesia one of the most vulnerable countries to the impacts of climate change” (UNDAF 2009:8). The destroying impacts of global warming is already evident in Indonesia, and the poorest people who are living in the most marginal areas or surrounding forest that are vulnerable to drought, floods or landslide for example, will feel the effects more acutely.



The aim of the UN-REDD Programme in Indonesia is to assist the Government in establishing and organising a fair, equitable and transparent REDD+ architecture as well as attaining 'REDD-Readiness'. Furthermore, it is important to contribute to build capacity for the implementation of REDD+ at decentralised levels, especially at the district level, due to Indonesia's particular decentralised governance systems. Hence, the programme will contribute to an inclusive process where multi-stakeholder participation and empowering of local stakeholders are evident. UN-REDD is working on ensuring multi-stakeholder participation in the development of the National REDD+ Strategy in Indonesia. Moreover, UN-REDD aim to contribute to 'lessons learned' through the demonstration activities in Sulawesi as the pilot province (UN Indonesia 2009).

## 4.0 - Theoretical framework: REDD+ and Poverty Reduction



**Photo 3: A chainsaw operator showing his work in Manokwari Utara**

### **4.1 Introduction**

The main goal of REDD+ is to achieve sustainable development through forest management. The Food and Agriculture Organization of the United Nations (FAO) is one of the UN organisations working with REDD+ issues. They claim that “sustainable forest management aims to ensure that the goods and services derived from the forest meet present-day needs while at the same time securing their continued availability and contribution to long-term development” (FAO 2008). Forest management encompasses, in the broadest sense, the administrative, legal, technical, economic, social and environmental aspects of the conservation and use of forests. It implies various degrees of human intervention, ranging from looking after and maintaining the forest ecosystem and its functions, “to favouring specific socially or economically valuable species or groups of species for the improved production of goods and services” (FAO 2008). However, many of the world’s forests and woodlands are still not managed in accordance with the Forest Principles adopted at the United Nations Conference on Environment and Development (UNCED 1992 in FAO 2008).

Especially many developing countries lack adequate funding and human resources to prepare, implement and monitor forest management plans, and they also lack mechanisms to ensure that all stakeholders participate and are involved in forest planning and development. Many places have forest management plans, however they are frequently limited to ensuring sustained production of wood, without the concern for non-wood products and services or social and environmental values. “In addition, many countries lack appropriate forest legislation, regulation and incentives to promote sustainable forest management practices” (FAO 2008).

It is expected that the conversion of forest to agricultural land will continue, however, it should be done in a measured, strategic and sustainable way. Uncontrolled logging, clearing and burning of tropical forests should be stopped, as well as stopping “large-scale disruption of carbon-rich peatlands, which release disproportionately large amounts of greenhouse gases when cleared and drained” (CIFOR 2010:2). Usually forests are cleared because there is money to be made from doing it, for instance, converting forest to cash crops like palm oil generates financial profits. Thus, some short-term economic sacrifices will have to be made, “but in the interests of equity poor, forestdependent communities should not be the ones to suffer” (CIFOR 2010:2). In the long term, everyone will benefit from more sustainable management of forests.

The international society has many experiences with forest management issues from the past, and a key challenge will be to build on this experience without repeating the mistakes of the past (Angelsen 2009). Two reasons for failure in preventing tropical deforestation from continuing at high speed are; the failure to address the fundamental drivers and the tendency to view the forest sector in isolation from other sectors. According to Angelsen (2009: xiii) “the current mainstream REDD+ debate has only *partly* taken these lessons into account and looked beyond the canopy”.

REDD+ is being designed through political processes at global, national and local levels. There are many actors involved with different and often conflicting agendas and interests. The global architecture of REDD+ is not clear yet, and will probably evolve quickly the next few years. The decisions made on the global level will influence the design and implementation of REDD+ schemes on the national level. Many uncertainties might appear. Flexible

mechanisms should be adopted and REDD+ schemes should be implemented in stages (Angelsen 2009).

Domestic REDD+ debates are to some extent mirroring international discourse. “Conflicting interests among actors could make it difficult to overcome the key challenges and hamper coordination, which could impede efficiency in formulating and implementing REDD+ actions” (Angelsen 2009: xiii). And even though reviews suggests that there have been substantial progress, the key challenges remain: ‘ensuring high level government commitment; achieving strong coordination within governments and between state and non-state actors; designing mechanisms to ensure participation and benefit sharing; and establishing monitoring, reporting and verification (MRV) systems’. The question is if people’s interest in REDD+ represent genuine motivations to move forward on key issues such as land tenure and effective participation (Angelsen 2009).

The optimistic idea of REDD+ is now facing some realities on the ground that may hamper the implementation. Some of the main problems are that the ownership of forests is often unclear or contested. Governance is weak and corruption and power struggles are frequent. Moreover, most countries do not have good data or the skills and systems to measure changes in forest carbon. In addition to all this, the international architecture of REDD+ is far from clear and will continue to evolve the next few years (Angelsen 2009).

REDD+ debates and negotiations are no longer limited to global forums, but is now taken place in national capitals and communities. “Governments in developing countries, national and international organisations, hundreds of REDD+ projects and thousands of forest communities are trying to figure out how to make REDD+ work for them” (Angelsen 2009:3). The question that they are all working with is; “What should REDD+ look like in our country?”

## ***4.2 Pro-poor development***

The United Nations Millennium Development Goals (MDGs) are familiar worldwide. They have become like a mantra for the world on what to focus on when it comes to development in all societies. The MDGs are eight goals that the United Nations developed in 2000 with the aim to achieve them by 2015. The goals range from halving extreme poverty to halting the

spread of HIV/AIDS and providing universal primary education. They form a blueprint that all the world's countries and leading development institutions have agreed upon, to meet the needs of the world's poorest (UN 2010). Investments in actions to fight poverty and secure a sustainable development will be an important incentive for many developing countries to join the REDD programme. Reducing poverty is the number one goal of the MDGs. There is close interdependence between growth, poverty reduction and sustainable development (UNDP 2006). In this paper, the focus has primarily been on health, education and business opportunities. Three of the MDGs are related to health; maternal health, child mortality and combating HIV/AIDS and malaria, expressing the importance of working on improving the health status in developing countries. Furthermore there is a goal aimed at achieving universal primary education, and also the goal on gender equality targets the disparity among gender in schools. The second target of goal one, end poverty and hunger, focuses on decent employment for women, men and young people. All the MDGs are of course highly relevant to achieve adequate development, however the focus here has been, as mentioned, on health, education and employment, as these three issues are strongly co-related and can help people realising development on their own. Education is the key to enhance people's awareness and ability to be a part of their own development, furthermore it is a prerequisite for getting decent employment in many cases, and finally, none of this can be done with a bad health. The seventh goal of the MDGs is to ensure environmental sustainability, with the targets to integrate the principles of sustainable development into country policies and programs; reverse loss of environmental resources, and reduce biodiversity loss, among others (UN 2010b). This brings also REDD+ into the picture, and if implemented right, funding from REDD+ can contribute to reach the MDGs in developing countries.

Article Two of the United Nations Framework Convention on Climate Change (UNFCCC) states that the ultimate objective of the convention is "to stabilise greenhouse gas concentrations while also ensuring food production is not threatened and economic development proceeds in a sustainable manner" (Angelsen 2008:107). Thus, it implies that global climate change negotiations concern more than just the reduction of greenhouse gas emissions. *"The Thirteenth Session of the Conference of Parties in Bali in December 2007 (Decision 2/CP.13) recognised that reduced emissions from deforestation and forest degradation (REDD) 'can promote co-benefits and may complement the aims and objectives of other relevant international conventions and agreements' and that 'the needs of local*

*and indigenous communities should be addressed when action is taken' to implement REDD"* (Angelsen 2008:107). Hence, it is recognised by parties of the UNFCCC that REDD+ will have implications beyond mitigation of carbon emissions. This broader dimension of REDD+ is by Angelsen referred to as 'co-benefits', and one of them are social co-benefits associated with pro-poor development.

REDD+ could most definitely be high-risk for the forest-dependent poor. The "multiplicity of interests and the polarisation of wealth and power of different stakeholders in the forest sector" (Angelsen 2008:110) are some of the main reasons. However, by delivering significant financial flows to rural areas, REDD+ also provides important opportunities to reduce poverty and enhance equity in some of the most depressed and under-funded parts of developing economies.

The questions of whether and how social co-benefits should be factored into the REDD+ policy are debated. Among those who favour inclusion of REDD+ in a climate change regime, there are two positions. One side argue that the main aim of REDD+ is to tackle climate change and not poverty, hence the appropriate standing point should be 'do no harm' to the poor. Others are favouring a 'pro-poor' approach and arguing that REDD+ will not succeed unless co-benefits are delivered. "This group views REDD as deriving much of its legitimacy and potential effectiveness from its ability to improve the welfare of the forest-dependent poor and foster development in some of the poorest regions of the world" (Angelsen 2008:109). The arguments in favour of a pro-poor approach are diverse and compelling; including moral arguments, practical considerations, risk reduction arguments, attractiveness of REDD investments, political considerations and procedural matters.

Peskett et al (2008) argue that in many cases, REDD+ may do 'no harm' to the poor, simply because that REDD-related activities and benefits might never reach them. Unless major efforts are devoted to making REDD+ work for the poor, poor countries and poor people will probably not be able to take advantage of the opportunity, owing to the fact that the large political forces driving the development of REDD+ and the technical complexities of implementing the systems. Peskett et al (2008) also emphasise that it is important to prioritise pro-poor REDD policies and measures. Different REDD+ options may lead to similar levels of emissions reductions, while impacts on the poor will be varied and should be analysed on a case-by-case basis. It is necessary with a strong pro-poor political commitment from the

outset to ensure social benefits. Which REDD+ options that are chosen and how they are implemented will clearly have huge potential implications for the poor. Peskett et al (2008:6) also mention additional issues that have significant implications for the poor. They include: “who manages REDD funds; how authority is distributed in the REDD ‘supply chain’; the nature of benefit sharing systems; the form of monitoring, reporting, verification, compliance; and legal mechanisms relating to REDD”. Furthermore, the policies and measures chosen by governments or project implementers to address the drivers of deforestation and degradation will also have significant implications on poverty.

Moreover, volumes of finance are likely to vary significantly between different options of financing. Market based schemes are for example likely to raise more funds which might bring income and growth benefits for developing countries. “However, they might suffer from greater efficiency equity trade-offs (i.e. favouring least-cost strategies that maximise emission reductions) than alternative funding arrangements with a ‘pro-poor’ remit” (Peskett et al 2008:7). Large amounts of finance could also lead to negative impacts on the poor, if they e.g. lead to rent seeking by officials or other forms of elite capture, or by overloading institutions with limited capacity to manage finances.

Another factor that may have different impacts on the poor is whether national or project-based approaches are being used. National approaches where governments receive REDD+ finance may be more centralised, and the implications on poverty issues are likely to depend on whether structures to devolve finances and authority to lower levels are in place.

Moreover, there is a risk that the poor will have a smaller role in the design and implementation of REDD. However, national approaches to REDD+ “may be better aligned with existing financial systems, and could enhance efficiency by lowering transaction costs relative to multiple independent projects, as well as helping to strengthen government systems” (Peskett et al 2008:7). It is no question that finding ways to distribute REDD+ finances equitably is likely to be challenging. “Elite captures of benefits at national and local levels and conflicts arising from increased value of land due to REDD could be major problems” (Peskett et al 2008:7).

There is still much uncertainty related to the form of potential international REDD+ mechanisms which makes it hard to judge their implications for the poor. Nevertheless, it is no doubt that decisions at the international level will have a large effect, particularly

concerning volume of finance for REDD+ and the international distribution (Peskett et al 2008). Under certain conditions, and in certain contexts REDD could have enormous potential income and growth benefits for developing countries. However, the potential risks to the poor are also large, such as elite capture of benefits, potential loss of access to land and lack of participation in decision-making. “This is because of the likely scale of the systems envisaged, the complexities of monitoring and tracking carbon in the landscape, and the strong environmental, private sector and developed country interests to establish REDD mechanisms quickly” (Peskett et al 2008:8). To ensure equitable benefit distribution, robust systems of accountability, effective conflict resolution and support for small-scale REDD, concerted efforts are required.

### ***4.3 Community awareness and participation***

REDD+ systems are complex and many of the concepts are most likely unfamiliar to many people, including the poor. Lack of information and understanding could keep the poor from accessing REDD+ benefits, and could also reduce their ability to negotiate REDD+ agreements with investors, - leaving them with unfair conditions. Failures in information could also result in “perceptions of infringement of sovereignty or local rights, generating political resistance to REDD schemes” (Peskett et al 2008:8). For REDD+ to be successful and pro-poor for the rural communities it is important to engage the local people in the REDD+ issues, and provide them with proper and clear information. During the last decade, many countries have implemented forest decentralisation reforms which have potential to improve forest management. If REDD+ strategies represents local needs and aspirations in design, implementation and benefit allocation, they are likely to be more equitable and locally legitimate. By decentralising meaningful decisions to locally accountable and responsive local authorities, it would promote local engagement in REDD+ decision making. “Rule making and benefit and cost distribution are key issues in constructing legitimacy for REDD+ and ensuring 3E+ outcomes [effectiveness, cost efficiency and equity outcomes]” (Angelsen 2009: xv).

Elinor Ostrom’s book “Governing the Commons” discusses about the evolution of institutions for collective action. Here she tries to ‘explain’ how common areas -natural resources- are governed in the best manner. Natural resources are constantly threatened, and people know what the problem is, they just cannot agree how to solve the problem; “how best to limit the



use of natural resources so as to ensure their long-term economic viability” (Ostrom 1990:1). The issue is how to best govern natural resources used by many individuals in common; by central regulation, private parties or the state. What has been observed is that “neither the state nor the market is uniformly successful in enabling individual to sustain long-term, productive use of natural resource systems” (Ostrom 1990:1). However, communities of individuals have governed some resource systems with reasonable degree of success over long periods of time with institutions resembling neither the state nor the market.

Elinor Ostrom (1990:30) defines the term ‘common-pool resource’ (CPR) as a “natural or man-made resource system that is sufficiently large as to make it costly (but not impossible) to exclude potential beneficiaries from obtaining benefits from its use”. Examples of resource systems include fishing grounds, forests, groundwater basins, grazing areas and irrigation canals etc. Further she calls the “process of withdrawing resource units from a resource system ‘appropriation’. Those who withdraw such units are called ‘appropriators’” (Ostrom 1990:30).

Looking at some of the successful cases, she has tried to “identify a set of underlying design principles shared by successful CPR institutions” (Ostrom 1990:60). Despite all the differences among CPR settings, they all share fundamental similarities, one similarity being that all face uncertain and complex environments. In contrast to the uncertainty in these environments, the populations in these locations have been stable over long periods. The people have shared a past and want to share a future, thus it is important for them to maintain their reputations as reliable members of the community. Norms that define ‘proper’ behaviour have evolved in these settings, and many of these norms make it possible for individuals to live in close interdependence in many aspects without excessive conflict. Furthermore, it is a valuable asset with a reputation for keeping promises, honest dealings and reliability. “Prudent long-term self-interest reinforces the acceptance of the norms of proper behaviour” (Ostrom 1990:89). It is however important to notice that “none of these situations involves participants who vary greatly in regard to ownership of assets, skills, knowledge, ethnicity, race or other variables that could divide a group of individuals” (Ostrom 1990:89)

The most notable similarity is the perseverance manifested in these resource systems and institutions. They clearly meet the criterion of sustainability, and they are robust due to the fact that the rules have been devised and modified over time. The operational rules in the

different cases differ markedly from one another. Elinor Ostrom (1990:89) explains it like this:

*“Although the particular rules that are used within these various settings cannot provide the basis for an explanation of the institutional robustness and sustainability across these CPRs, part of the explanation that I offer is based on the fact that the particular rules differ. The differences in the particular rules take into account specific attributes of the related physical systems, cultural views of the world, and economic and political relationships that exist in the setting. Without different rules, appropriators could not take advantage of the positive features of a local CPR or avoid potential pitfalls that might be encountered in one setting but not others”.*

Hence, instead of turning to the specific rules, Ostrom (1990) turn to a set of eight design principles that characterise all of these robust CPR institutions.

### 1. Clearly defined boundaries.

This means that it is important that individuals or households who have rights to use the resources from the CPR are clearly defined, and also the boundaries of the CPR itself. As long as the boundaries and specification of who can use the resources remain uncertain, no one knows what is being managed or for whom. It is also important to closing it to ‘outsiders’, so that local appropriators not face the risk that any benefits they produce by their efforts are reaped by others who have not contributed.

### 2. Congruence between appropriation and provision rules and local conditions.

Adding well-tailored appropriation and provision rules helps to account for the perseverance of these CPRs. “Appropriation rules restricting time, place, technology, and/or quantity of resource units are related to local conditions and to provision rules requiring labor, materials, and/or money” (Ostrom 1990:92). The rules should reflect the specific attributes of the particular resource.

### 3. Collective-choice arrangements.

Most of the people that are affected by the operational rules can participate in modifying them. CPR institutions that use this principle are better able to tailor their rules to local circumstances, because the individuals who directly interact with each other and with the physical world, can modify the rules over time so they better fit to a specific setting.

#### 4. Monitoring

Effective monitoring by observers accountable to the users.

#### 5. Graduated sanctions

The people who violate operational rules are likely to be given graduated sanctions, by other appropriators, or to officials accountable to these. In these institutions (CPRs), monitoring and sanctioning are not done by external authorities, but by the participants themselves (Ostrom 1990).

#### 6. Conflict-resolution mechanisms

They should be cheap and easy to access.

#### 7. Minimal recognition of rights to organise.

Give at least a minimal recognition to the legitimacy of rules defined by the local appropriators, and give them the opportunity to enforce the rules themselves. If external government officials presume that they are the only ones with the authority to set the rules, it will be very difficult for local appropriators to sustain a rule-governed CPR over the long run.

#### 8. Nested enterprises

In the case of CPRs spanning over larger areas, the organisation should always have small, local units as their bases.

Ostrom (1990) is not yet willing to argue that these design principles are necessary conditions for achieving institutional robustness in CPR settings, but she believes they are a core to future prerequisites after further theoretical and empirical work. Two of the major puzzles regarding self-organisation and self-governance in CPR institutions are the problem of commitment and the problem of mutual monitoring (Ostrom 1990). These eight design principles are shedding light on how to solve these problems.

Elinor Ostrom is far from the only one assessing the issue of communities managing own resources. Especially regarding forest management there are a lot of theoretical and empirical work that have been done. In the last twenty five years there has been a widespread movement towards community or collaborative forest management (CFM), in which authority to manage the forest is in some way decentralised to local communities (Wiersum 2004 in Skutsch &

Karky 2009). Community forest management frequently lead to reversal of trends in forest degradation and to increases in biomass stock, thus also to decreasing CO<sub>2</sub> emissions. The formulation of the REDD+ policy is crucial to whether communities engaged in such forest management will benefit from it. Skutsch & Karky (2009) highlights two important issues. Firstly, the overall financial gains are likely to be small unless forest enhancement is credited as well as reduced degradation. It would involve the crediting of carbon removals rather than of reduced emissions. “If this policy were adopted, it would put degradation into a group with forest management activities, rather than with deforestation, in terms of accounting and methodology” (Skutsch & Karky 2009). Secondly, it is likely that local communities will receive a very small amount of the overall financial value of the carbon savings, if any, it will rather go to cover overheads at state and intermediary levels, unless there are built in guarantees. Skutsch & Karky (2009) argue that *“if communities make the measurements of carbon stock changes themselves, this will not only reduce the transaction costs, but also increase the accuracy and reliability of national claims for carbon credits under REDD. Moreover it will increase the chances of legitimating ownership claims by the communities of the carbon saved”*.

Community-Based Natural Resource Management (CBNRM) is an example of a form of CFM, and discussed in a report by WWF. Experiences from CBNRM can help to address the concerns about REDD+ and help strengthen the linkages between national and local practices. CBNRM is a right-based approach to management of natural resources where local communities obtain the authority and rights to manage, use and benefit from natural resources in their own area in a sustainable manner. *“The aim of CBNRM is both to improve biodiversity management as well as improve local livelihoods and thus contribute to poverty alleviation, through sustainable natural resource management CBNRM empowers local people to participate in management of resources, and to make decisions over the use of resources and resultant benefits”* (Sperling & de Kock 2010:21). Developing and strengthening accountable local institutions is a core element of CBNRM, thus they can manage the natural resources and the benefits generated from the management of the natural resources for the community.

CBNRM addresses poverty in a broad sense of the word, - “in terms of financial poverty but also inequity, lack of services, lack of voice and lack of respect” (Sperling & de Kock 2010:21). Hence, the outcomes of poverty alleviation resulting from CBNRM include

recognition and provision of rights, over resources and also basic human rights, upholding dignity, empowerment, and enabling access to resources, information and services. “It enables improved governance, both internal – in terms of management of community institutions – but also of the natural resource base, in addition increased income and food security through supplementary income services provided through CBNRM” (Sperling & de Kock 2010:21).

CBNRM emerged in southern Africa in the 1980s amongst government agencies and donors as a new way to approach natural resource management. It was in strong contrast to the existing conservation approach which were characterised by exclusion and even expulsion of local people. Reasons for the shift in conservation practices to one which takes local people and their traditional knowledge into account were the governments limited capacity to manage and protect wildlife adequately through the structures inherited from the colonial administrations, together with the recognition of the rights of indigenous peoples in international human rights law, and the emergence of these peoples as a social movement. Now it has expanded regionally and globally, and there are currently CBNRM projects throughout the world. The focus has also expanded from wildlife being the initially primary focus to now including community forestry management, fisheries and other natural resource management, e.g. non-timber forest products and management of wetland areas. Moreover conservation agriculture has also emerged in CBNRM as a means to improve local land husbandry. CBNRM can also be a type of Payments for Ecosystem Services (PES). Sperling and de Kock (2010:22) says that “PES involves providing incentives in the form of financial payments to people or institutions to maintain ecosystems and associated ecosystem services, rather than converting them to other use”, and they also state that REDD+ is a form of PES.

Entrenched in a number of international protocols and agreements is the rationale for enabling communities to equitably benefit from the conservation and sustainable use of natural resources, hence it is reasonable to integrate lessons and principles from CBNRM to REDD+. They mention among others the Convention of Biological Diversity (UN 1993a), The preamble of Agenda 21 (1993b), principle 10 of the Rio Declaration, The ILO Indigenous and Tribal Peoples Convention (ILO Convention 169) (1989), and The UN Declaration on the Rights of Indigenous Peoples (UNDRIP) (adopted by the UN General Assembly in September 2007). REDD+ is likely to be implemented in forest areas owned by communities, or forest-dependent communities, hence, it is relevant to learn from lessons made from other natural resource management strategies implemented in areas where local people have an important

position. Through testing and implementing CBNRM, many concerns related to natural resources have been addressed over the past 25 years. Thus REDD+ initiatives can learn from a number of lessons learned from the successes and challenges from CBNRM, and should be considered in the design and implementation of REDD+ (Sperling & de Kock 2010:22).

“CBNRM experience has shown that incentive-based and participatory approaches to natural resource management can result in improved conservation, livelihoods and governance of the resource base, if certain conditions are in place” (Sperling & de Kock 2010:22). It is much more likely that the natural resources will be conserved if they are economical beneficial and can be used as a viable livelihood strategy by the local people, or are socially or culturally valuable for the community. So, the more benefits they can generate from it or the more value it has for the community, it is more likely that the natural resources will be maintained and/or improved by the local people. Therefore, REDD+ will need to be incentive-based not only for the country as a whole but also for the affected community areas to promote forest conservation and get adequate engagement.

#### ***4.4 Benefit Sharing and clear rules for the funding***

Carbon rights will be a new form of tradable commodity in many REDD+ systems. It may influence how land is managed over long time periods and who receives the benefit from REDD+. It is also likely that carbon rights will be linked to land ownership. The concern is about how this might restrict land use options for the poor and possible conflicts between legal land owners, those who claim to own the land, and governments. “Where the land ownership is unclear or disputed, it is unlikely that REDD can deliver significant benefits to the poor or be an effective instrument for addressing climate change” (Peskett et al 2008:8).

The questions of carbon rights and benefit sharing are closely linked to forest tenure, and allocation of carbon rights is a precondition for sub-national carbon crediting. The discussion about sharing international benefits needs to go hand in hand with a discussion about sharing the costs and burdens of REDD+. Many of the policy forms in discussion will have no direct transfers to forest users, but will burden those who benefit from deforestation or degradation with costs; hence it will lead to demands for compensation. Another issue is the importance of managing expectations regarding benefits, especially since the international incentive systems are still under development. Unrealistically high expectations generated in capitals and

communities about large money flows and REDD+ rents may in fact put the whole project at risk (Angelsen 2009).

The potentially large money flows have also brought concerns related to governance and the risk of more corruption. Angelsen (2009) say that many REDD+ interventions are likely to be affected by poor governance and corruption, but MRV mechanisms, both for carbon and financial flows, can also contribute to reducing corruption. There is reason for optimism as long as REDD+ is performance-based and receives high levels of monitoring from national and international levels. However, in countries with high corruption levels, anti-corruption policies limited to the forest sector are unlikely to work, there might be need for systemic institutional changes.

The forest, socio-economic and policy contexts vary to a great extent across and within countries (Angelsen 2009:19). The world is complex and it is not possible with simplistic explanations, yet it requires clear and simple policies. There are also a number of dilemmas in designing and implementing national REDD+ strategies and policies facing the policy makers. “REDD+ must be new, but it will have to build on existing assets and insights from past policy interventions. REDD+ must also be transformational, but policy making is normally about incremental change. Finally, REDD+ actions are urgent, yet the broad participation and coordination called for, to make sure policies meet the 3E+ criteria, suggest that REDD+ cannot be rushed” (Angelsen 2009:xviii).

A huge challenge concerning the implementation of REDD+ is how to make effective mechanisms to respond to diverse circumstances. Due to differing national circumstances regarding the drivers of deforestation and forest degradation, and different degrees of institutional capacity to monitor, influence and regulate these drivers, developing countries differ in their capacity to reduce forest emissions. Hence, the question is “how do we match country needs with financing sources?” (Angelsen 2008).

#### ***4.5 Coordinating surrounding agencies and organisations***

The UN-REDD programme is a partnership among three UN agencies with the intention that it “would leverage additional technical capacity and policy influence through strategic partnerships”. This is because the complexity and requirements for REDD+ makes a strong

case for the establishment of partnerships. Hence, the Programme is committed to promoting strong partnerships at the necessary scales, from global to local levels, as well as “taking on broad lessons learned from complementary initiatives while avoiding duplication of efforts” (UN-REDD Programme 2011:18). Coordination and collaboration among related institutions and initiatives are essential to reduce transaction costs and improve efficiency.

In most countries and communities there are existing organisations and agencies that are already working with similar issues as REDD+. Local NGOs working with poverty alleviation and/or environmental issues and deforestation are common in many areas. Thus, it is important that the REDD+ programme make use of these organisations as it may make the implementation of REDD+ more efficient.

Intersectoral Partnerships (ISPs) is a term that refers to activity that involves collaboration between organisations based in the three sectors: the state, the market, and civil society. There are many large and complex issues that require a wide range of resources and abilities; hence ISPs are an important approach to address such issues. Examples can be; housing for the urban poor, grassroots economic development and health care (Waddell & Brown 1997). “ISPs can help reduce duplication of effort and activity that works at cross-purposes; they can also stimulate innovation and unusually creative solutions if the diverse goals of participants can be addressed” (Waddell & Brown 1997:1). The term ‘partnership’ can be used in different inter-organisational forums where information and resources are shared and exchanged with the aim to produce outcomes that one partner cannot achieve on its own. In a broad sense they can include informal forums such as lunches or informal contacts, to formal systems, such as formal consultation processes or new legal entities. It is useful to think of partnerships as a process, an action called partnering, rather than as an outcome. Partnerships are not static, but are always changing as goals, abilities and relationships change. Waddell & Brown (1997) mentions four reasons for partnering; 1) that parties simply want to increase the scale of their activity; 2) want to take advantage of the strengths of a partner; 3) want to exchange technologies or information-to learn from one another; 4) want to develop undefined opportunities (based in the understanding that dynamic interaction creates new ideas and solutions to problems). They continue by stating that building partnerships emphasises very different skills than from those required in the hierarchical organisations. In partnerships “skills like listening intensely, questioning perceptively, building trust, integrating multiple



perspectives, negotiating power and resource differences, identifying common ground, and creating shared visions” are emphasised (Waddell & Brown 1997:2).

Inter-organisational cooperation can take many forms and involve few or many partners. A common pattern between partners may involve the exchange of information and resources to strengthen the partners’ individual activities through a third organisation. An example can be participation in an information exchange that enables the parties to learn information of value to their respective activities. Another type of partnering involves the creation of a new organisation to do a specific activity – “a new venture that may require activities quite different from the core activities of either partner” (Waddell & Brown 1997:3). The new forum may in this case produce new services, products or infrastructure. These partnerships tend to take a more formal structure with a separate legal entity. ISPs can have benefits such as reduce duplication and working at cross-purposes. Furthermore, ISPs can provide better coordination by bringing together stakeholders, and explicitly consider each other’s values, goals and activities (Waddell & Brown 1997).

#### **4.6 Concluding remarks**

The importance of REDD+ is now globally recognised in its importance for limiting global warming. Discussions are still being held internationally to try to define the scope and architecture and to provide macroeconomic incentives for REDD+. “If such an incentive scheme is designed wisely, it has the potential to not only contribute significantly to the mitigation of climate change, but also reduce climate-related vulnerabilities, enable sustainable management of natural resources and promote poverty alleviation”. Sperling & de Kock (2010:8) further claims that if this is going to be possible it is important that frameworks for REDD+ initiatives on the national level are informed by sub-national level condition, and that top-down and bottom-up perspectives are merged. Furthermore, it is important to coordinate with relevant organisations and agencies both on a global and a local scale to make it more efficient.

In this chapter, the relationship between REDD+ and pro-poor development has been highlighted, and can thus justify the first two research questions of this paper. Furthermore, from the theory presented about REDD+, three propositions can be derived that will be highly relevant in the question of implementation of REDD+ in Manokwari Utara:

1. To engage the local people in REDD+ issues one has to give proper information to raise their awareness and include them in the policy making.
2. There is a need to supervise the benefit sharing and have a clear agenda and rules for the funding.
3. Already existing agencies and organisations in the area should cooperate to make the most out of the REDD+ programme.

This will be further discussed and elaborated in chapter 6.0 Findings and Analysis.

## 5.0 - Research Methodology

The choice of method depends on what you want to find out. It is normal to distinguish between two main research strategies; quantitative and qualitative. For the purpose of this study I find qualitative research most appropriate, since I wanted to try to explore the people and community in depth to find out how REDD+ funding would be most effective. The concept of interpretivism is central in qualitative research, which seeks to understand the “social world through an examination of the interpretation of that world by its participants” (Bryman 2008:366). This corresponds well with the type of information that I am looking for. The intention was to get detailed information about the community in research, Manokwari Utara, and how they best can adapt to the REDD+ programme. Also I wanted to find out what the people themselves think is important that REDD+ funding focuses on. A great deal of the funding will hopefully go to pro-poor actions, and it is important to know what the people in the community see as the best way to ensure sustainable development.

I believe a combination of qualitative approaches is feasible for my study, namely; semi-structured interviews, parts of participant observation, and qualitative analysis of documents, with main focus on gathering information through interviewing. These issues will be addressed later in this chapter, firstly I will present some general information about qualitative research.

### 5.1 Qualitative research

The distinction between quantitative and qualitative research is ambiguous, because it is by some writers regarded as a fundamental contrast and “by others as no longer useful or even simply as ‘false’” (Layder 1993 in Bryman 2008:21). To characterise the link between theory and research is not a straightforward matter. There are two issues that stand out in particular; the question of what form of theory one is talking about, and whether data are collected to test or to build theories. Many would say that the main distinction between quantitative and qualitative research is that quantitative researchers employ measurement and qualitative researchers do not. But this is more or less considered as a “superficial” issue, and most researchers suggest that there are differences that are far deeper than presence or absence of quantification. Bryman (2008) presents two clusters of ‘fundamental differences between

quantitative and qualitative research strategies'. Quantitative research has a deductive approach to the relationship between theory and research; testing of theory, while qualitative have an inductive approach; generation of theories. Regarding epistemological orientation, quantitative research has incorporated the practices and norms of the natural science model, in particular positivism. While qualitative research has rejected this "in preference for an emphasis on the ways in which individuals interpret their social world", called interpretivism. Ontological – quantitative research embodies objectivism; views social reality as an external, objective reality, while qualitative research embodies constructionism; views social reality as a constantly shifting emergent property of individual's creation (Bryman 2008:22). However, it is important to remember that there is in fact considerably more to the quantitative/qualitative distinction than this contrast. The three contrasts mentioned are basic, though fundamental ones.

### **5.1.1 The main preoccupations of qualitative researchers**

People, who are the objects of social sciences, are capable of giving meaning to their environment, unlike the objects of analysis of the natural sciences that cannot attribute meaning to events and their environments. Therefore, many qualitative researchers believe that it is necessary with a methodology for studying people that reflects these differences between people and the objects of the natural sciences. "As a result, many qualitative researchers express a commitment to viewing events and the social world through the eyes of the people that they study" (Bryman 2008:385). They believe that the social world must be interpreted from the perspective of the people being studied. This empathetic stance is very much coherent with the epistemological position of qualitative research, interpretivism.

Qualitative researchers have a tendency to provide a great deal of descriptive detail about their research as opposed to quantitative researchers. It does not mean that they are exclusively concerned with description, they are also very much concerned with explanation, and the extent to whether qualitative researchers ask "why?" is frequently understated. It is often that qualitative studies are full of detailed information about the social world under examination. These details are frequently important for the qualitative researcher because of their significance for their subjects and also because the "details provide an account of the context within which people's behaviour takes place" (Bryman 2008:387). Qualitative researchers emphasise the importance of the contextual understanding of social behaviour and

is therefore preoccupied with providing great amounts of descriptive detail. Behaviour, values, or whatever must be understood in context, one can only understand the behaviour of members of a social group in terms of the specific environment in which they operate. Bryman (2008:387) concludes that “in this way, behaviour that may appear odd or irrational can make perfect sense when we understand the particular context within which that behaviour takes place”.

Many qualitative researchers are preoccupied with flexibility and limited structure on their research. They dislike the imposition of predetermined formats on the social world. This is largely because of their preference to seeing through the eyes of the people being studied. If a structured method of data collection is employed, “certain decisions must have been made about what he or she expects to find and about the nature of the social reality that would be encountered. Therefore, the researcher is limited in the degree to which he or she can genuinely adopt the world view of the people being studied” (Bryman 2008:389). As a consequence, most qualitative researchers prefer an orientation to research with as little prior interference of the social world as possible. By keeping structure to a minimum, it may enhance the opportunity of genuinely revealing the perspectives of the people being studied. The possibility of gaining important knowledge about people’s social world, which the researcher has not thought about, is also more prevalent. “As a result, qualitative research tends to be a strategy that tries not to delimit areas of enquiry too much and to ask fairly general rather than specific research questions” (Bryman 2008:389). In addition to the prospect of gaining access to people’s world views, another advantage of the unstructured nature of most qualitative research is that it offers the prospect of flexibility. It is easier for the researcher to change the direction of the investigation during the process. Many qualitative researchers have discovered during their investigation that they need a change in emphasis from what they initially believed.

### **5.1.2 Challenges with qualitative research**

Some of the most common critiques of qualitative research are that it is too subjective, difficult to replicate, problems of generalisation and lack of transparency. Quantitative researchers often criticise it for being too impressionistic and subjective, meaning that qualitative findings rely too much on the researcher’s often unsystematic views about what is

significant and important. Also that it may be influenced by the close personal relationships that the researcher frequently strikes up with the people studied.

Another critique related to the fact that qualitative research often is unstructured and open-ended and often relies upon the qualitative researcher's ingenuity, is that it makes it almost impossible to conduct a true replication. There are hardly any standard procedures to be followed. Furthermore, there is the issue of generalisation. "When participant observation is used or when unstructured interviews are conducted with a small number of individuals in a certain organization or locality, they [quantitative researchers] argue that it is impossible to know how the findings can be generalized to other settings" (Bryman 2008:391). Which of course is true. However, the people who are interviewed in a qualitative research are not meant to be representative of a population. Instead the findings are to generalise to theory rather than to populations. Not all writers on the issue of generalisation of qualitative research accept this view. Williams (2000:215 in Bryman 1998:392) "has argued that, in many cases, qualitative researchers are in a position to produce what he calls *moderatum* generalizations - that is, ones in which aspects of the focus of enquiry can be seen to be instances of a broader set of recognizable features". Williams argue that qualitative researchers often make these kinds of generalisations. When generating findings relating to the group of enquiry, a researcher will often draw comparisons with findings by other researchers relating to comparable groups, and they may even draw comparisons and linkages with still other groups that perhaps are not directly linked to the issue of research. "When forging such comparisons and linkages, the researcher is engaging in *moderatum* generalization" (Williams 2000:215 in Bryman 1998:392).

The last of the main critiques against qualitative research is lack of transparency. It is sometimes difficult to establish what the researcher actually did and how he/she arrived at the study's conclusions. Qualitative researchers are for example sometimes unclear about how people are chosen for observation or interview. Also, the process of qualitative data analysis is frequently unclear. Often it is not obvious how the analysis was conducted; what the researcher was doing when analysing the data, and therefore how the conclusions of the study were arrived at.

### **5.1.3 Reliability and Validity**

For the evaluation of social research there are three prominent criteria; reliability, replication and validity. “Reliability is concerned with the question of whether the results of a study are repeatable” (Bryman 2008:31). Whether the measures that are devised for concepts in the social sciences are consistent. Reliability is particularly at issue in connection with quantitative research. It is very close to the other criterion – replication. The study must be replicable. “Similarly, in order for us to assess the reliability of a measure of a concept, the procedures that constitute that measure must be replicable by someone else (Bryman 2008:32). Validity is in many ways the most important criterion of research. “Validity is concerned with the integrity of the conclusions that are generated from a piece of research” (Bryman 2008:32). The issues of reliability, replication and validity seem to have more relevance to quantitative research than qualitative. However, different writers have sought to apply the concepts of reliability and validity to the practice of qualitative research, “but others argue that the grounding of these ideas in quantitative research renders them inapplicable to or inappropriate for qualitative research” (Bryman 2008:34). Kirk and Miller (1986 in Bryman 2008) have applied concepts of validity and reliability to qualitative research, but they have changed the sense in which the terms are used very slightly. Lincoln and Guba (1985 in Bryman 2008) propose that alternative terms and ways of assessing qualitative research is required. They propose for example trustworthiness as a criterion of how good a qualitative study is. They further propose four aspects of trustworthiness that has a parallel with the previous quantitative research criteria; namely; credibility, transferability, dependability and confirmability.

## **5.2 My research**

There are several characteristics on how to carry out qualitative research. Here I will discuss the methods and designs that fit with my research.

### **5.2.1 Research area and research questions**

I chose to write about REDD+ because it is a highly relevant topic. Mitigating climate change is something that the whole world is concerned about; knowing that the impact of climate change will affect everyone in all areas of the world. Furthermore, I think it is important to focus on the pro-poor issues as poverty is still a huge problem in the world, and the global community is still working on achieving the MDGs. Poor people, especially in forest areas,

are likely to be most directly affected by REDD+. If REDD+ is being implemented without proper consideration of the poor people it is likely that it may make their lives even worse. Consequently, REDD+ has also the possibility to have a huge positive impact on the poor, if it is only implemented right, and the funding is shared in an equitable manner.

The choice fell on Indonesia since it is one of the countries in the world with the highest CO<sub>2</sub> emission rate from deforestation and forest degradation. It is also one of UN REDD's pilot countries, and Norway has agreed to allocate huge funds to implement REDD+ in Indonesia. Then it seemed like a good idea to do the research in Papua as it is one of the poorest provinces, and has a high deforestation rate.

After deciding on research area, I started to narrow down the research topic to develop a tighter focus. This was done by i.a. developing research questions. Since it would be impossible to answer all the questions that initially occur, I had to select and generate the ones that encompassed the area of interest that I really wanted to find out. It is important that the questions are coherent to keep a clear focus. It is recommended to develop research questions in both qualitative and quantitative research, however they are often less specific in qualitative research. But at the same time, Bryman (2008:69) emphasises the importance of specifying clear research questions, if not "there is a great risk that your research will be unfocused and that you will be unsure about what your research is about and what you are collecting data for". The research questions will guide the literature search, help deciding what data to collect, guide the data analysis, and the writing-up of data, and it will also stop you from going off in unnecessary directions.

### **5.2.2 Purposive Sampling**

I conducted about 20 village interviews. By village interviews I mean interviews I had with different heads of families (20 male and two female) living in the villages in the sub-district Manokwari Utara. The point was to interview people that was dependent on the forest for their living, and thus would be affected by a possible REDD+ implementation in that area. Among these there were e.g. land owners, village heads, chainsaw operators, and people using the forest for farming.



Purposive sampling is a non-probability form of sampling, meaning that the researcher does not try to sample research participants on a random basis. “The goal of purposive sampling is to sample cases/participants in a strategic way, so that those sampled are relevant to the research questions that are being posed” (Bryman 2008:415). The researcher would very often try to sample in an order that ensures that there is a good deal of variety in the resulting sample. So that sample members differ from each other in key characteristics. Sites, like organisations and people (or whatever the unit of analysis is) within sites are selected because of their relevance to understanding a social phenomenon.

The District Officer (interim) Johan Edward Prawar (known as Pak Edu) helped me get in touch with suitable people. This could of course lead to some bias in selection of respondents, but it was the easiest way to get in touch with suitable people with different jobs and sources of income. He made it for example possible to get in contact with almost all the landowners in the sub-district. The villages in Manokwari Utara stretch along the coast, and it takes about 2-3 hours from Manokwari town to the village farthest away. Also, the houses were quite scattered, and it would have been difficult to find an adequate number of suitable people to interview by ourselves (me and my interpreter) with a limited time available. There might also be some bias in the answers from the respondents since they saw the District Officer was with us, and sometimes he sat with us and listened to the interview as well. But he was well liked by the people in the district, and it did not seem like they bothered too much about having him around.

Furthermore, I had interviews with other so-called key informants. It ended up with 13 interviews with people from the government in different agencies, people from the University, with different NGOs, and the District Officer of Manokwari Utara. It was mainly my interpreter that helped me to get in touch with these people. This was to learn more about the society and also what different people and organisations thought about, and did, regarding my research topics. From this I learned about individual’s opinions, and public opinions about the current situation in Papua regarding poverty and development and REDD+ implementation.

### **5.2.3 Semi-structured interviews**

The rationale for using semi-structured interviewing is that it would allow me to address the research questions properly and get in-depth information about the situation. Semi-structured

interviewing is flexible and gives the interviewee a great deal of leeway in how to reply and in what order, but by using an interview guide all the same questions will be answered in one way or another by all the interviewees (Bryman 2008:438).

I had an interview guide with a list of questions arranged by topics. I wanted to make sure that all the village respondents answered all the same questions, but at the same time I kept the possibility to ask follow-up questions whenever appropriate. By asking the same questions I also have the opportunity to “count” and “measure” some of my findings, even though it is of course not possible to generalise it.

Regarding the so-called key informants, the questions were naturally different depending on what sort of organisation or agency I was interviewing. However, the main topics were the same; poverty relief and REDD+, as well as general information about their work and responsibilities.

Some of the interviews ended up being group interviews or similar to focus groups. I had for example a conversation with two representatives of the REDD+ research team together with the head of Ministry of Forestry, discussing about REDD+ issues in Papua. Furthermore, sometimes when I conducted village interviews, other family members or neighbours intervened/joined the interview. Some answered on behalf of the original respondent, sort of to help them out, or help them understand. Others found the topics interesting and wanted to express their own opinion about it.

In qualitative research the interview is often audio-recorded and transcribed whenever possible. This is because qualitative researchers are frequently interested in the *way* people say things and not just *what* they say. It makes it also easier to pay attention and to be on alert to what is being said, and being able to follow up on interesting points that comes up, or any inconsistencies in the answers, than when one is distracted by having to concentrate on taking notes at the same time. However, there is a cost in this method as it is with just about everything in conducting social research. The interviewee may get disconcerted, non-cooperative or anxious about being recorded. Another issue is that transcribing interviews is very time-consuming, and there is always a chance of mishearing or misunderstanding. However, this of course also applies when you are simply taking notes, and not using an audio-recorder. The risk of mishearing and misinterpreting is always present. I did not use an

audio-recorder, I simply took notes during the interviews. I figured it would be easier, both because the majority of the interviews were held outdoors, thus it was a lot of noise and disturbing sounds sometimes. Also, it would be more difficult because I used an interpreter. I tried to transcribe the interviews successively every evening after finishing the interviewing.

I used a translator/interpreter for most of my interviews because most of the respondents did only speak Bahasa Indonesia. However, some of the interviews with key informants were conducted in English.

#### **5.2.4 Doing interview with an interpreter**

As mentioned I had to use an interpreter to be able to conduct my interviews. She was with me at nearly all the interviews I had, even though some of them were conducted in English whenever possible. However, in the villages all the interviews was in Bahasa Indonesian or closely related dialects.

Languages in cross-cultural interviewing can be seen as sources of bias in qualitative research and interviewing. It is therefore important to be aware of some of these issues that might occur, and take it into consideration both before starting the process and during the interviewing. The methodological implications of languages should be problematised.

It is said that “good interpreters become your eyes and ears. They help with translation and interpretation of both verbal and non-verbal communication and they are a guide in terms of cultural sensitivity issues” (Marschan-Piekkari & Welch 2004:212). It is definitely an advantage if the interpreter is one you can trust and who is fully briefed about the research so they can be an integral part of the interview team. Furthermore, they need to be up to date with technical terms and issues that might arise, and be on the interviewer’s side. Because of their past experience and connections, they might be a source of relevant information themselves (Marschan-Piekkari & Welch 2004).

My interpreter was a lecturer at the Forestry Faculty at the University (UNIPA) in Manokwari town. She had been doing field work and research in the past herself, so she was familiar with the procedures and how to best ask the questions and so on. Furthermore, she was familiar with the concept of REDD+ and had good knowledge about forest issues. She was a good

source of information and helped getting in contact with suitable people and organisations. It was highly necessary to have an interpreter as I do not speak any Indonesian languages, and many of the local Papuans do not speak English.

How you communicate and express yourself, both verbally and non-verbally can influence the interview process. Being polite and accommodating, creating a good atmosphere, may put the interviewee at more ease, and might be more cooperative. If they get a negative impression it might compromise the interview and their answers. By using an interpreter there is an additional link between the interviewer and the respondent, and the interviewer loses some of the control over the situation, and has to trust that the interpreter is doing a good and decent job (Marschan-Piekkari & Welch 2004).

There are a variety of relations to be managed during the interview process; the interviewer-respondent relationship, relations among different respondents, interviewer-interpreter relations and respondent-interpreter relations, which all require attention and cultural sensitivity (Marschan-Piekkari & Welch 2004). “An interpreter may be used, but as Usunier (1998, p.92) points out, the introduction of this third party ‘produces noise, artificiality and an absence of tempo’, thus damaging the intimacy and the natural rhythm of the interviewing process.” (Marschan-Piekkari & Welch 2004:225).

Fortunately, I had a good relationship with my interpreter, and as she knew the culture and had been doing similar study in the past she knew how to best handle these situations, and how to introduce me to the interviewees. Nevertheless, there is still the issue of language and communication differences; firstly, between the interpreter and myself. We communicated in English, which is not the first language of either of us. Also, the language skills varied, and how to express ourselves, and our accents also varied due to cultural differences. We sometimes needed some additional explaining and talking to make sure that we understood each other. But overall we communicated quite well with each other, once we got to know each other more. Further, the communication between the interpreter and the respondent can also cause some bias. The interpreter has to translate the question from the interview guide and at the same time make it understandable to the respondent, before translating it back to me, the interviewer.

## 5.2.5 Ethnography and participant observation

I also wanted to employ some methodological elements from participant observation, but only to a limited extent since participant observation normally include being an integrated part of the community of research over an extended period of time, which was not the intention of my study.

It may be a bit far-fetched to call it ethnography or participant observation, as my fieldwork does only fit, to some extent, with some of the points presented about this research method in Bryman (2008). In his book (Bryman 2008:402,403), he says that ethnography will be taken to mean a research method in which the researcher:

- is immersed in a social setting for an extended period of time
- makes regular observations of the behaviour of members of that setting
- listens to and engage in conversations
- interviews informants on issues that are not directly amenable to observation or that the ethnographer is unclear about (or indeed for other possible reasons)
- collects documents about the group
- develops and understanding of the culture of the group and people's behaviour within the context of that culture
- and writes up a detailed account of that setting

However, it is important to mention that this form of gaining information is debated among scholars. It is by many people thought to be unethical as the people may be unaware of the observer's intention. Also, the insecurity and difficulty with interpreting people's behaviour, not to mention in a foreign culture, may lead to incorrect analysis (Bryman 2008).

Nevertheless, I feel I used several of these points to some extent during my fieldwork. I spent almost two months in Indonesia altogether; two and a half week in Yogyakarta and four and a half week in Manokwari, Papua. While I was in Yogyakarta I attended some lectures at the Gadjah Mada University learning about Indonesian history and development, and I got acquainted with parts of the Indonesian culture and way of living. However, Papua is quite different from Yogyakarta in Java. During my stay in Manokwari I met with a lot of people, and was able to learn about their culture and way of living both by observation and conversations, and also by simply living there for four weeks. Of course, I learned the most

from the interviews I had, but I certainly believe that my casual encounters also enriched my study. This is of course not sufficient to call it “participant observation” research, I simply want to express that I used some elements of this approach as well.

As I have already said, I had a translator with me during the interviews, she can almost be looked upon as a “key informant” as described in Bryman (2008). Some informants may become particularly important to the research. “They often develop an appreciation of the research and direct the ethnographer to situations, events, or people likely to be helpful to the progress of the investigation”. This is almost exactly what my translator did for me. As already mentioned, she was a lecturer at the Forest Faculty at the University and was thus very interested in REDD+, and she knew a lot about forest and forest governance in Papua. She also helped me identify different organisations and people in the area that was useful for me to talk with. Furthermore, she had previously conducted fieldwork on her own, so she was familiar with the process of interviewing. She had also conducted parts of her research in Manokwari Utara, so she knew the area and some of the inhabitants there. This was of huge value for my work, and we were also able to discuss issues among ourselves, and sometimes I think she was almost just as interested as I was in what we were finding out. Another important person for my research was the District Officer (of interim) of Manokwari Utara. As mentioned, he was the one who helped introduce us to the “right” people to interview. He told us that that it would be safer and easier for us to get in touch with people if he was with us, so he drove with us to find appropriate people to interview. He was also a good resource of information about the area and politics in Manokwari.

## **5.2.6 Documents as sources of data**

The term ‘documents’ covers a very wide range of different kinds of sources. It can be data, such as letters, diaries, autobiographies, newspapers, magazines and photographs. Documents used as sources for data are most often not produced specifically for the purpose of social research, they are simply just ‘out there’ waiting to be assembled and analysed. The search for documents relevant to the research can often be “a frustrating and highly protracted process” (Bryman 2008:515). In social science there is a useful distinction between personal documents and official documents, and has further classified the latter in terms of private opposed to state documents. In addition to this distinction, it is also useful to include mass-media outputs and virtual documents.

In my research I have mainly used books and information from the Internet to gather material about my research topic. Public information from governments and private sources, such as organisations, newspapers, and debates are all available on the Internet.

Collection and analysing of documents has been a huge part of my research. It has enabled me to get a better picture about Indonesia, e.g. its history, development and politics. Furthermore, I have gathered a whole lot of information about deforestation and forest degradation, and of course REDD+. Documents have been important especially with the concept of REDD+, since the knowledge of this programme was very limited for the people in my research area. None of the village respondents had even heard about the concept, so I could not get concrete opinions about REDD+, hence it was important to read even more about it.

### ***5.3 Challenges I encountered in the field***

As already mentioned there are quite some limitations and critiques of qualitative research in general, but these are mainly compared with in quantitative research, and often related to reliability, validity and transparency. For the purpose of my study, which was to gain in-depth knowledge about the people and their community, it was necessary to use qualitative research.

It was a bit difficult to get a research permit for Papua and Manokwari, but when it got sorted out, people were very welcoming.

I think the main challenge I encountered in the field was the issue of speaking different languages and having to use a translator all the time. It did not give me the close contact that I would like to have with the respondents. I believe that I might have gotten an even better understanding of their lives, if we spoke the same language. However, this was of course something I knew on beforehand when choosing to go to Papua.

## 6.0 - Empirical findings and Analysis



Photo 4: A family's home in Mandopi village, Manokwari Utara

### 6.1 Introduction

Here I will present my findings from the research I conducted in Manokwari Utara in February 2010, and discuss it in relevance to the theory previously presented in this paper. As mentioned in the methodology, I conducted 22 interviews with local people in the villages about their living conditions and thoughts about forest use and management etc. Further, I conducted 13 interviews with people from different agencies and with different expertise around the subjects; REDD+, forest management and poverty alleviation. These people were situated in Manokwari town. The respondents in the villages in Manokwari Utara have been given fictive names to make them anonymous. I interviewed people in 11 different villages.

This chapter will start with answering the first research question about 'how the current development state is in Manokwari Utara', before the next section is discussing about the 'community members' opinions about their living conditions and what they prioritise as important to develop their community'. Next is a section on the implementation of REDD+ and possible challenges. Lastly is a summarising section which is trying to answer the last research question; 'how should the REDD+ programme be implemented to make sure that the villagers benefit as much as possible from it?'



## **6.2 Current development status in Manokwari Utara**

Research Question 1:

- *How is the current development state in the community in Manokwari Utara, especially regarding health, education and business opportunities?*

Manokwari Utara (North Manokwari) is a sub-district of the Manokwari district. It stretches along the north-coast of Papua Barat. There are 23 villages (kampungs) in the district and about 3700 inhabitants according to numbers from 2008. Amban is the area of Manokwari town that is closest to Manokwari Utara, and this is currently the closest most well-functioning health centre for the people in the villages of Manokwari Utara.

They have one puskesmas (health centre) in Nuni, the district capital, but it does not have any doctor at the moment. Some nurses live in Yooml and Mandopi Sairo, and a health team from puskesmas Amban comes visiting the villages approximately once per month.

However, they have to go to Puskesmas Amban or the public hospital in town to be examined by a doctor and get proper treatment and medicine. The nurses in Utara does not have sufficient equipment and skills to treat all different kinds of diseases, and also the health teams that come visit only bring some medicine for the most common diseases, and focuses on helping pregnant women. For the villages closest to town and Amban it is not so difficult to attend the health facility when they get sick. However, for the people living in e.g. Warbufor and Yonggam it takes about 1-2 hours by driving to Amban so it is more difficult. This leads to another weakness in the development state of Manokwari Utara. Several of the villagers complain about lack of transportation conditions. There are only a few public taxis/buses that run on the road in the sub-district. Also, they do not drive on particular times, they wait until it is full to make the most money. Some of the villagers say that the problem of transportation has stopped them from going to the puskesmas.

However, all treatment in public facilities is free now after the Special Autonomy. This is a very good and positive step in the development of Manokwari Utara. Many people do not have money in abundance, and they are not so good at managing their money, so when an unforeseen incident happens, like sickness, they won't be able to pay for it. Hence, now that it is free, more people have the possibility to visit the health facility. However, there are

examples of people who cannot get sufficient treatment. A family has a sick boy, who should stay at the hospital in town, but they do not have money to take care of him there (bring him food and stay with him), so they had to take him out of the hospital and bring him home.

When it comes to education and school, there are 8 elementary schools and 1 Junior High School in Manokwari Utara. As with the health services, education got free after the Special Autonomy, at least through Junior High school. This is at least a progress, as it most definitely makes more children attend school. However, it does not seem like the learning is satisfactory. Most respondents complain that there are not enough teachers and that some of the teachers live in town and sometimes do not show up, so the children have to go without classes sometimes even for weeks. Some villagers also complain about the level of teaching. Mostly one teacher teaches all the different subjects, they have no top competence in any specific subject. These issues will however be further elaborated in the next section when discussing about the inhabitants' opinions about this.

There are not many sources of income that give stable earnings for the villagers in Manokwari Utara, so most of them have a variety of income sources. In the citizen data of the district from 2008, they divide the livelihood into four categories; civil servant, farmer, fisherman and others. The total numbers in all the villages together there are 91 civil servants, 1401 farmers, 55 fishermen and 88 in the category of other. Most of them are doing a combination of these four to cover their livelihood. The numbers coincide with my findings. Out of the 22 people I interviewed 17 had a small farm. The number of civil servants is around 8-10, while there are five fishermen. In addition there are some people who are chainsaw operators, kiosk owners, having a cocoa plantation, and some are selling fruit and vegetables. Some have the farm only for subsistent use, while others go to town to sell their agricultural products and earn money. The cocoa plantation was a project implemented by the government in 1985, but it got destroyed by pest, and the production and income has been limited since then. The cocoa plantation stretches from Bremini through nine other villages and ends in Mandopi.

It is the land owners who give the other inhabitants permission to clear land for farming, or taking wood to build houses for example. There were eight landowners among the respondents, but the amount of trees they are selling varies. One guy who is a village head and a forest owner does not bother to have a farm because he gets enough money from selling

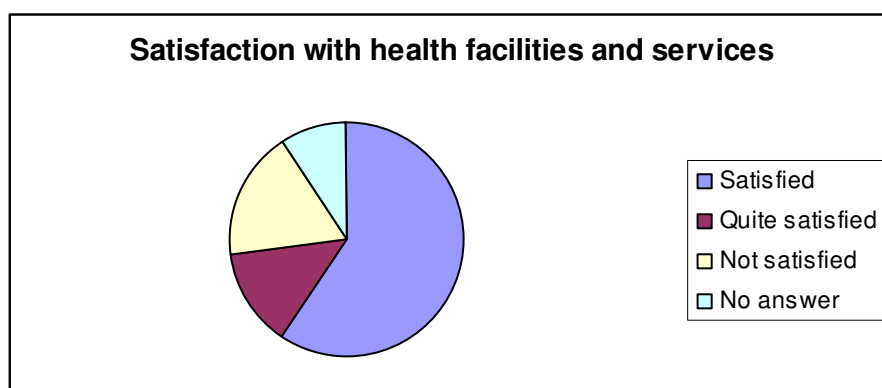
trees. A landowner in Inya says that the government buys trees from him to build houses, while another guy says he is selling trees to timber shops in town (Manokwari). At the same time others say that they hardly sell any trees. John says that no one comes to buy trees from him. He continues by saying that he thinks it is important to take care of the forest and maintain it for the future and to his grandchildren. The area he lives in has been destroyed earlier by forest companies. However, when that is said, he is also a civil servant (teacher at UNIPA) so he probably gets enough money from this, and therefore does not have to cut trees and sell the forest like others do. Another landowner says that he wants to keep the forest, but he needs the timber [money], so he cuts a lot of trees. *“A lot of people come here and asks for timber, so the forest is decreasing. There has been a lot of forest destruction here.”* It seems like the demand for timber depends on your willingness to sell timber, what village you are in and what kind of forest you own.

### **6.3 The community members’ opinions and priorities regarding their living conditions**

Research Question 2:

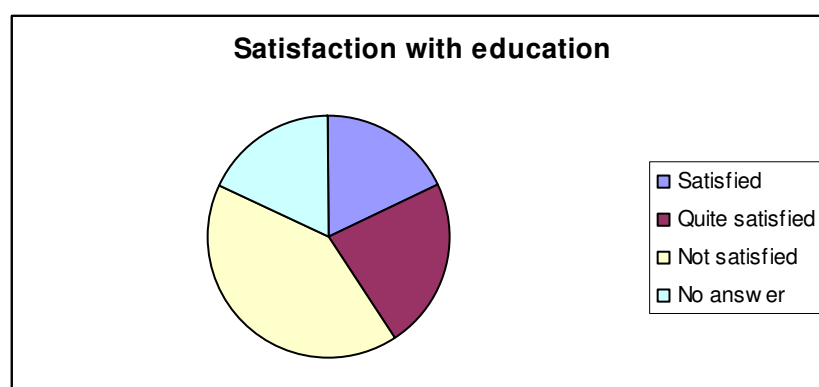
- *What are the community members’ opinions about their living conditions, and what do they prioritise as important to develop their community?*

#### **6.3.1 Satisfaction with health facilities and education**



**Figure 3: Satisfaction with health facilities and services**

Figure 1 shows that the people in the villages are generally quite satisfied with the health services and treatment. The staff are friendly and helpful, and it is not too expensive. The things that decrease their satisfaction are lack of sufficient equipment and expertise skills at the local puskesmas/posto. However, Puskesmas Amban seems to be satisfactory to the people. Further, many think that there are too few doctors in the area in general. “I am satisfied, the services are better than before and the nurses are friendly, but we need a doctor here, there are only two nurses”, says a man in Yoom1. There is a local posto (smaller health centre than puskesmas) in the area where they can get help from the two nurses. Another respondent from Meinyunfoka says he is satisfied with the health situation even though he sometimes has to go to private doctor, and sometimes they have to buy the medicine at the pharmacy which they sometimes cannot afford. The category ‘no answer’, are respondents who were not asked the question (due to short time), or that they simply did not have any opinions or wanted to answer it.



**Figure 4: Satisfaction with education**

There seems to be more dissatisfaction with the schools and education in Manokwari Utara (Figure 2). In general people are happy that the school is free and that they have schools there, so the children at least learn something. However, the quality of the education is not good enough. There is for instance a serious lack of teachers. Twelve of the respondents who are ‘not satisfied’ or ‘quite satisfied’ complain about the lack of teachers. It is also mentioned by some of those who are generally satisfied that the quality of the teachers is not good enough. A man from Warbufor says: “Yes, I am satisfied with the teacher and learning process, but I am disappointed that just anyone can be a teacher”. This is also commented by other respondents, that many of the teachers do not have sufficient education to teach, and often it is the same teachers having all the subjects, meaning there are no qualification requirements for

teaching the different subjects. Nevertheless, a teacher is better than no teacher, but this is an even more pressing problem in Manokwari Utara; namely that there is a serious lack of teachers in the sub-district. And those who do work here, do often not live in the villages, but in Manokwari town, and sometimes they do not show up, so the pupils do not get any lessons. “The number of teachers is too low, only two, so sometimes there are no school, maybe they only clean the yard at school or something”, says a village officer. Another one states that the children sometimes have to go a whole month without any school. The ‘no answer’ category includes people who were not asked the question, did not have an opinion, or did not have any children in school.

### 6.3.2 Job and business opportunities

The majority of the respondents say that it is not difficult to open a farm and get money that way, and most consider that as the only “business opportunity” there. So in that respect, it is not difficult to get a job, however, many do not think that farming is “enough”, they would like something else/more. Some say that it has become easier after decentralisation due to a prioritising of the locals, however one still needs education.

Consequently the “outsiders” say the opposite. In an interview I talked to a group of fishermen who descended from Biak (an island north of Papua). Their parents had moved from Biak to Manokwari town through local ‘transmigrasi’ (transmigration). They moved here to Meinyunfoka in Manokwari Utara in 1985 for the cocoa plantations. The government announced that if someone from town wanted, they could come and have a cocoa plantation here. The government paid until they harvested the fruit. The government organisation had said that they were going to buy cocoa, but they “ran away”, so the people had to walk to town and sell it there, which was quite difficult. However, after the pest infected the cocoa plantation, the harvesting has been limited. They do not seem to get rid of it all, even after using pesticide. Their other main source of income comes from fishing. However, they feel that they should get more aid from the government. They should provide e.g. facilities for fishing, like motors and tool. Now they only use traditional tools and methods. *“The government people have given tools for fishing, (motor), to local people who do not even go to the sea and fish. But we, the Biak people, did not get anything, so we sometimes hire the machine from the local people. So we feel that the tools and machines get to the “wrong”*

*people. Since we are considered outsiders we do not get the same privileges. And we do not have the right to protest, then the forest owner and local people might attack us somehow.”*

Furthermore, they complain about that the government does not come to the field and see the situation; they just sit in town and decide. The Biak people say that they have to compete with ‘modern tools’, local people, and people from the town on the market. They have to go to town to sell their fish, because everyone is fishermen in this area. The woman in the group also says that it is quite difficult to get a job. Sometimes she gets hired to write, for elections for example, but not very often. She has tried to apply to become a government official, but she did not pass. It is only for the locals that it has become easier after Special Autonomy. If farming can be a job, then it is not a problem but she does not see that as enough, and they do not use the farm in that way. The outsiders are not allowed to cut trees for selling, so they only take for building of houses. They do not feel that they get treated the same way as the local people.

It is about the same number saying that it is difficult to get a job as saying that it is not difficult. However, it seems like this distinction depend on in what regard you view farming as a job. It is quite evident from the answers that those saying that it is easy to get a job are thinking about farming as the most relevant alternative. A farmer from Yoom1 says: “It is not difficult to find a job. People can open a farm and earn money, but they are lazy”. Which is another coherent issue; people are lazy and lack the willingness. A chainsaw operator and fisherman point out this, and say that to get a job one “needs willingness and credibility. One has to put in an effort. Some people are lazy, they can collect food so see no reason to work”, which is a common opinion among many of the respondents. People can get what they need from the little land they cultivate together with gathering fruits and vegetables for example, they manage to get by from day to day. Hence, this is a common comment among the respondents who think that it is not difficult to get a job, if you just have the willingness.

### **6.3.3 Why are people poor?**

The people living in the villages were also asked about why they think the people in Manokwari are poor, and what they think is needed to improve people’s lives and what should be improved in their community. Some of the professors I talked to (both in Yogyakarta and Manokwari) meant that the reason for why people in the villages are poor was the bad management of forest. However, not many of the respondents agreed to that, or at least that

was only a small part of it. Some say that the limited access to cutting of trees is the reason that they are poor:

Andy, who previously has said that he wanted to keep the forest but he needed the money from the timber, now states that: *“the way the forest is managed is the reason for why people are poor because we are only allowed to cut in small scale, only 5 cubic metres. It is only to fulfil basic needs, we cannot produce anything else from the money”*. Further, another farmer and landowner says that people are poor because they do not have access to sell trees, and they are not very good at managing their money. A fisherman from Biak is surprised that even the landowners are poor: *“Even the people who have access to the forest are poor, the outsiders who come and cut the trees get more profit, even compared to the landowner. Surprised even the landowner is not rich, but maybe because of bad habit, drinking and bad management of money”*. Several of the respondents stand behind this and say that normally does the chainsaw operator earn more money from cutting of timber than the landowner himself.

Generally they say that they are poor because the government does not pay enough attention, and that the labour market is too little, they only have farming to earn money from, unless they are a landowner who can sell trees. Moreover, some say that it is because the people are lazy. They can get their basic needs from farming, so they do not bother to generate income and save money, they somehow manage with the little they have, and some seem content with that. Other reasons mentioned are lack of education and thus difficult to get a good job, and also that people are not so good at managing their money.

Nick says that if the people got money from the government they would not need to go to the forest to fulfil their basic needs. He continues: *“here the government just come to deceive us and take the trees from us, and not help. For example the companies of Ibu Tuti and Pak Wong said that they would provide houses, sanitation and schools, but they just ran away after taking a lot of timber”*. Several of the respondents comment that there have been some big timber companies from outside here previously (in the 1980s and 1990s). That is when huge areas of primary forest got lost, and it is why they only have secondary forest in some areas now. Ibu Tuti (daughter of former President Suharto) and Mr Wong (foreign businessman), are two people that are mentioned by several of the respondents who are responsible for most of the previous forest degradation in the area. It is also said that the timber companies (Mr. Wong) brought their own workers; hence it did not provide any job

opportunities for the locals either. Agus comments this: *“The government should stimulate economic activities to increase people’s income and thus their livelihood. The way the government arrange these things is important. For example if a big foreign company comes and builds a plantation, the government does not facilitate the community. They should make sure that the local Papuans are being used, the companies usually use staff from outside. The government should improve local people’s skills; educate them so that they can be able to work for these private companies”*. This proves the findings from other sources as well (Barr et al 2006 in chapter 2.3.1), that instead of being involved in the forest companies work and thus earning money, the foreign companies bring their own workers, so the local people are often not hired.

A bit more than half of the interviewees were asked the hypothetical question: “What would you spend the money on, if you were given funding for managing/controlling the forest”? Most of these answers were, not surprisingly, that they would use it on basic needs and to support their lives. Many highlighted education for their children, and other commented that they would spend them on businesses. However, learning from other respondents that a lot of money goes to paying for conflicts and bride price, and sometimes they are just being misused. For instance, Marco says that *“normally are the farming activities done by the women. The women go to the market in town, and sometimes the man comes a bit later and takes the money she has earned and spends it on food and drink with his friends”*. Furthermore, the District Officer (interim), Pak Edu says that *“people should pay tax to the government, and also to the landowner for cutting of trees. A problem is that sometimes people cannot manage this money. Originally people are supposed to give some of their income to the village (to pay for funerals etc.), so they give it to the village head. But this might be a problem, especially if the village head also is the owner of the forest, he might just take the money and use them for himself, and not for the community. Sometimes people give money to the village, but the difficult part is the managing of this money”*.

#### **6.3.4 What is needed to improve people’s lives?**

In relation to the issue of why people are poor, the respondents were also asked about what is needed to improve people’s lives, and what could/should be improved in their community, Manokwari Utara?



The local people seem to mostly agree about the main things that are needed to improve their community and people's lives. They bring up the limitations concerning basic needs, such as education and health again. The health staff and services in the rural areas need to be improved. Also education is important to increase job opportunities. In addition to this almost everyone mentions issues like better housing, clean water, electricity and better toilet facilities. Micky says: *“We need for example better toilets and drinking water, but the government only give materials, while people may not know how to use it. Need supervision and training. Need better housing and toilets, infrastructure as well as health and education.”* While a guy in Singgimeba, suggests that, *“if possible the government should provide job opportunities, road, housing, and appropriate toilets. Should also pay more attention and provide clean water, house, light, health facilities. Also the community need to change, and we need more education to get better jobs, and manage our lives”*. Some of the villages have electricity, and some only have it for a few hours every day. Clean water is also scarce in some of these villages, which also is connected to forest degradation. Destruction of forest can lead to disturbances in the groundwater and rivers. Others complain about the housing facilities, and especially the bathrooms or toilets. The sanitation is bad and leads to more outbreak of diseases.

However, people clearly want help from the government. A village officer comments, *“Without help from the government we cannot do anything to improve our lives. The quality of education is low, and few people are in school. If you want to get a good job you need at least to graduate from Senior High school or University”*. Another guy says, *“the government should help the local community, by providing jobs and guide them on how to benefit from own resources”*. Almost all of the respondents want more help and support from the government. Some say that they should provide more job opportunities, other that they should pay more attention to these rural areas, give them more help and supervising. One suggests that the government should try to solve the problem with the destroyed cocoa plantation, since it is already there anyway. He also says that there is a market for tropical fruit in town, so should enable them to plant these kinds of trees as a long term action.

However, the people in the villages say that it is difficult to communicate with the government, mostly because they live in town. The government does not pay enough attention to this community. Pastor Carl says that the government should do more specific things, such as give training and education so more people can become civil servants. The people need

training and guidance in how to use the tools they get and how to manage money and their resources. James replies: *“the Papuan province is rich in natural resources, but still people live in poverty. They need a change, but the community cannot do it by themselves, they need the government to initiate. The majority are farmers. To have better lives they need better education, or else they will just stay as they are now”*.

Despite all the positive outcomes from the Special Autonomy that are mentioned in chapter 2.4.1, some respondents think that it is not “used/spent” efficiently enough. The problem of corruption is mentioned by several of the respondents. One guy says that the government spend the funding on their own houses rather than distributing it to the local people. James supports this statement: *“With the Special Autonomy fund the government is supposed to provide money to community welfare, but they don't. The money doesn't reach the lower level/community that live in poverty. Furthermore, the government says that the locals should build themselves, but there are no significant changes in development projects yet”*. Hence, the Special Autonomy Fund has to be managed properly to benefit all the people in all the levels of society.

Furthermore, many of the respondents comment that the people themselves need to change their behaviour and habit in order to be able to generate more income and achieve development in the community. Even though they believe and think that the government should initiate change and development in the community they recognise that their behaviour and habits need to change as well. *“Beside the physical things (health, education, infrastructure facilities etc.), people need to change their habit and character. Now people abuse alcohol, are lazy and fight with their neighbours”*. Several of the respondents comment that people are lazy and do not bother much about generating income and savings. One guy comments; *“What do you mean by poverty? Maybe people do not have money one day, but they have food on the table and that is enough. People are not motivated to put an effort into things. They do not think about tomorrow. Maybe it is important to introduce them to other lives so it can motivate them to change”*. He is a civil servant, teacher, and has two children in University, and has obviously a different perspective on things than many of the other locals. He further says that there is a problem with ‘adat’, (attitude, behaviour and tradition) custom, which it is difficult to separate the people from. The effect of this custom or culture is that people are not motivated to work or go to school, they would rather drink and it will trigger conflicts. He says that this is a major obstacle here and that this harming culture should be

broken. People who are married to ‘outsiders’ have better lives, better houses, jobs, and are better with managing money. Pastor Carl is also commenting this; *“The community itself need to change, the big obstacle being adat, - attitude, behaviour and tradition. It makes it difficult to have businesses for example. Also, the government should do more specific things, such as give training and education so people can become civil servants”*.

This is an important issue to consider when implementing REDD+. One has to factor in these strong connections to ‘adat’, and that it may make it more difficult to involve the local people as “assets” in the programme. Connected with the importance of engaging the people and increase their awareness about related issues.

## **6.4 Implementation of REDD+ (challenges)**

The previous sections show the need for pro-poor development in Manokwari Utara, meanwhile it is critical to conserve the forest that they are so dependent on. Hence, REDD+ can be an optimal pretext for giving these people better lives. However, how REDD+ is implemented is a crucial matter. The preparatory work will be of utmost importance to ensure benefits for the local people being affected by the REDD+ programme.

This section discusses the third research question:

*How should the REDD+ programme be implemented and how can the funding be used most efficiently for co-benefits such as pro-poor development?*

The section is built up after the three propositions presented in chapter 4.0, before it summarises prerequisites for successful implementation of REDD+ with the aim of alleviate poverty.

### **6.4.1 Awareness and engaging the local people**

*To engage the local people in REDD+ issues one has to give proper information to raise their awareness and include them in the policy making.*

As discussed in the previous section, the local people in the rural areas may not be as interested in REDD+ as one would like. They would most likely need proper incentives to support the REDD+ implementation appropriately. To engage the people it is necessary that they increase their knowledge and awareness, and that they are included in the process of

implementing REDD+. This is also acknowledged by the Forestry Department: *“people may not necessarily be concerned about money. They might not want/need it. They would rather pursue their way of living by using the forest and cut down trees, so it is necessary with a proper approach and strategy”*.

It seems like the locals feel disconnected from the government, in the sense that the government do not listen to their requests and needs, and the locals really do not trust the government. It is perhaps not so surprising looking at the history of Indonesia and the many years of repressing governments and corruption. President Suharto had complete control over Indonesia's political life as head of both the government and the military. Even though the country in average experienced a great deal of development and economic progress during this period, the inequitable distribution of wealth left a large group of people in continuing poverty. Pak Max Tokede at UNIPA confirms this; *“the locals don't trust the government, - if REDD gets implemented, won't trust that they will get the benefits from it. Maybe it would be better on voluntary basis – from international directly to the local people/tribe”*.

As read in chapter 2, decentralisation left the country in a state of confusion regarding laws and regulations, and especially concerning the management of forestry. Furthermore, the implementation of Special Autonomy has not been a total success either. As mentioned in chapter 2.3, the provincial government gained increased revenues, however the implementation of the Special Autonomy Law by the government has disappointed various groups in Papua. The necessary institutions have taken too long to establish, and they have been deliberately weakened by the government. Also some of the local people in Manokwari Utara complain about the Special Autonomy Fund. One guy says that it is not managed properly, and others comment that the funding does not reach the lowest levels. However, this is because of corruption and not Special Autonomy in itself, but it shows that the institutions around the Special Autonomy Law need to be improved. This is of course another reason that the local people in Manokwari Utara have difficulties with trusting the government.

District Officer Frans Mandacan claims that the relationship between the government and the local people is good. However, he states that in North Manokwari not many people are using public facilities due to lack of community awareness, thus he emphasises the importance of improving community awareness.

In 2005 Manokwari was divided into a kotamadya (municipality); Manokwari town, and a sub-district; Manokwari Utara. Frans Mandacan states that the main goal of this division was to get the government closer to the community. They hoped to make it easier for the people to get more involved, and by getting the government services, such as schools and puskesmas, closer to the community the people would get easier access. They hoped to stimulate the economy and improve people's livelihood, and believed that it would be easier by dividing Manokwari into two districts. That way they are entitled to more resources on health services, education and development in general.

As discussed in the previous section, the local people do not think that they get enough attention from the government. Yaipa is not so satisfied with the government's efforts in Manokwari Utara. He says that it is difficult to communicate with the government because they live in Manokwari town, so are not out here in the villages. It is only the District Officer, but he has not been here for eight months. Yaipa says that sometimes the government programs do not educate them, they might just get free rice and then they do not have to work. *"The government might initiate things sometimes, but they do not know if it is the best way or not. Maybe they are just giving a machine, but they [the locals] do not know how to operate it, so might just sell it"*. The government does not come and supervise and follow up on their development efforts. Yaipa would much rather like to get training and education in how to manage their own lives, instead of just being given food or machines they do not know how to handle. He also says that the people in the villages do not have enough education to manage the money they get from the government.

Like stated in chapter 4.3, information about REDD+ is of huge importance to enable the poor to obtain benefits from REDD+. The REDD+ systems are likely to be complex and based on concepts that are unfamiliar to many people, including the poor. Hence lack of information and understanding may prevent the poor from accessing the REDD+ benefits, as well as reduce their ability to negotiate REDD+ agreements with relevant actors. Local people may also even generate political resistance to REDD+ schemes if information fails it "could result in perceptions of infringement of sovereignty or local rights" (Peskett et al 2008:9).

First of all it is worth to mention that none of the interviewees in Manokwari Utara had heard about REDD+ and carbon trade. It is only the government agencies and professors at the University who knows about this yet (February 2010). The head of Forestry and Plantation

Agency confirms this by saying that *“they don’t communicate it to the locals, only to the head agencies, the University and investors/private party”*. This is a general problem in the area, and not only regarding REDD+. The lack of communication between the government and the villages lead to “misunderstandings” of forestry laws and regulation.

Angelsen (2009) believe that by decentralising meaningful decisions to accountable and responsive local authorities it would promote local engagement in REDD+ decision making. REDD+ strategies should represent local needs and aspirations in its design as it is then likely to be more equitable and locally legitimate. Moreover, both Ostrom’s CPR institutions and CBNRM discussed in chapter 4 emphasise the role of the locals in managing their own resources. Ostrom point out the fact that different rules at different places are probably the reason why the institutions have been stable over long time. The differences in the various rules “take into account specific attributes of the related physical systems, cultural views of the world, and economic and political relationships that exist in the setting” (Ostrom 1990:89). Hence, if the rules are adjusted to fit the local community in Manokwari Utara, it is more likely that they will be stable. The community in Manokwari Utara differ substantially from societies in other countries, and also within Indonesia there are huge differences in the local communities/societies. If the local people feel heard and taken into consideration, and that they are being a part of the project themselves, it is much more likely that they will commit to it. As Ostrom points out, it is likely that people are willing to comply with a set of rules if they perceive that the collective objective is achieved, and if they perceive that others also comply (Ostrom 1990:95).

Experiences from CBNRM show that incentive-based and participatory approaches to natural resource management can lead to improved conservation, livelihoods and governance of the resources. If the natural resources are valuable to the community, either as a viable livelihood strategy or socially or culturally, it is much more likely that it will be conserved. The people in Manokwari Utara are to varying degrees dependent on the forest for their livelihood. Some are selling trees to timber shops or the government, others are clearing areas for farming. At the same time they are concerned about conserving the forest. Almost all of the respondents think that it is important to conserve the forest:

*-“We try to cut "carefully", to make less damage. Important to conserve the forest. The government should make restrictions. (Not allow new palm oil plantation for instance).”*

- *“Important to conserve the forest. The Forest Agency has encouraged them to keep the forest, and not destroy it close to the road and rivers.”*
- *“Important to conserve the forest. To avoid natural disasters one should consider about the location and diameter of the tree so that one does not destroy the whole forest.”*

The people in Manokwari Utara are also dependent on non-timber products, such as fruits and vegetables that grow in the forest, and also for hunting animals. If the forest is not being protected they might lose some of this abundance. Hence, they have multiple incentives for conserving the forest, so that they will not lose these sources. Nevertheless, it is a matter of presenting it properly, and providing adequate incentives.

#### **6.4.2 Supervision and clear rules for funding/benefit sharing**

- *There is a strong need to supervise the benefit sharing and have a clear agenda and rules for the funding.*

It is necessary to establish clear rules for the funding and how the benefit from REDD+ will be shared among and between the people and government. Questions such as ‘who owns the land/forest’, and ‘where the boundaries go’ are highly debated in Papua Barat and Manokwari. Especially the controversy between customary rights and national government laws is a problem for the implementation of REDD+. These issues need to be addressed and assessed before it will be possible to obtain fair benefits from REDD+ to the local communities.

The forest in Papua is actually so-called state forest, meaning that it is the central government that owns it. However, in Manokwari Utara the local people still respect the customary laws. Customary laws ‘say’ that it is the local landowners who own the different land areas. These lands are passed along through family in generations. The first people who came and settled in a new area could claim the land as his own. Most of the village respondents agree that it is the customary laws that are the most important; “Customary rights are still acknowledged here”.

A village head in the sub-district says that he *“knows that the government technically owns it, but according to customary rights I own it. There are usually no conflicts, but they cannot*

*allow companies to come and use the forest”. Alan continues by saying: “Because we are a part of Indonesia we know that the government owns the forest, but we don't agree, we feel that the forest is owned by the local community. If the government have paid a compensation they can own the forest, but if not it belongs to customary rights”. Another land owner agrees with Alan; “Some say that it is state forest, but I know from I was a child that we own it. It is my family's property, but I am still open for others to live here”.*

In the paper provided on behalf of the Poverty Environment Partnership (PEP), by Peskett et al (2008) it is said that it is unlikely that REDD+ can deliver significant benefits to the poor and/or address climate change effectively where the land ownership is unclear or disputed. Carbon rights will influence the land use options, and cause possible conflicts between legal land owners, those who claim to own the land, and governments. Thus it is important to acknowledge this problem in Manokwari Utara (Papua), and try to solve it on beforehand of implementing REDD+

Several of the key informants also recognise this ‘problem’. Max Tokede, a researcher and lecturer at the University, also confirms the villagers’ responses. He says that *“local people don't acknowledge that the forest is owned by the national government, they believe it belongs to the customary community. On the other side, national government does not acknowledge the customary/local rights either. It is a conflict that should be solved”*. Also, the District Officer, Pak Mandacan, says that in Java there is state forest, but in Papua everyone believes in and follows customary rights. The Head of the District Forest Agency confirms that there is *“a problem with division/boundaries of the forest; a clash between Jakarta law and local rule after decentralisation and Special Autonomy. The national government has divided the forest into production and conservation forest etc. without consulting the locals. Now it is difficult to change this, one need an agreement from Jakarta to use protected and conservation forest.”*

It is quite clear from the village respondents’ perspective that it is the local people who have the best prerequisites for “managing” the forest, or that they at least should cooperate more/better with the government. Even though it might be owned by the government, the forests belong to local people and there they acknowledge customary rights.

The responses from the villagers are for instance:

*-“It should be done by the local people. The forest belongs to them, even though it is owned by the government. We don't need permission from government to sell the forest.*



- *Best if the local community manages. But what is "management"? The government does not manage it, they are not present, and only destroy it (referring to the forest companies that have been there).*
- *The locals, village heads and tribe heads should manage the forest because they live close to the forest and depend on it. Knows that Forest Agency also is in charge, but they do not stay here.*
- *The locals should manage the forest, especially the landowners; they are the ones who make the decisions. They will function best because local community respect them and will follow their rules.*
- *The landowner is the right one to be responsible for management of the forest. If government wants to manage it they should pay compensation. The forest is owned by the community right."*

In relation to the issue of boundaries and land ownership is the question of benefit sharing and carbon rights. One has to agree on forest tenure and land ownership before it is possible to allocate the funding appropriately. Strong supervision is needed to avoid elite capturing.

According to Pak Thomas Nifinluri, head of the Forestry Department, the main question is "how to allocate the resources from REDD". There has to be clear mechanisms to channel the budget transparently to the customary people. Furthermore, the different levels, national, provincial and district, have to be prepared, and develop institutions that can manage it. The research group at the Forestry Department thinks the question "who should channel the money?" is difficult, but they believe that the best way is probably to gather professionals and create an independent institution on province and district level that are in charge of distributing the money. They say that in Papua especially, there are still lack of human resources i.e. educated and skilled personnel, (so it might be wise to both engage people from the outside, and at the same time train people in Papua.).

They believe it is possible to implement REDD in Papua if one are aware of the possible problems and obstacles, where the main problem will be how to deliver the funding to the right people. The problem being to delineate the tribes and tribe life, so as to make sure that no one is being suppressed, and that the affected people will get the benefits.

Pak Thomas says that management capacity, coordination and people, are extremely important, as well as strong leadership. He suggests that one can maybe create development programs which can allocate the money to housing, businesses, health and education.

When it comes to benefit sharing, the local people believe that they should get compensation if certain forest restrictions are introduced. Especially the landowners. This is also acknowledged by the key informants and government agencies. According to the Forest Agency, REDD+ should give direct benefit to the locals. However, the problem is bad management of money, and the fear of elite capturing.

It is said by Resosudarmo et al (2009) that it may seem like Papua has greater opportunities, and maybe also temptations for corruption than other parts of Indonesia. Overall, corruption has become much more fragmented after decentralisation, and now it involves government officials, military, and legislative members at the national and regional level. With the large sums of money from the Special Autonomy fund, and when governmental institutions are still weak after recently being formed, the opportunity for corruption is tempting.

### **6.4.3 Cooperation**

*- Already existing agencies and organisations in the area should cooperate to make the most out of the REDD+ programme.*

The limitations of cooperation between central and district government as discussed in chapter 2.3 about decentralisation, underlines the importance of collaboration among the different stakeholders regarding REDD+ implementation. All the complications, corruption and exploitation, that has been taking place in the government and between government levels during the decentralisation process shows the importance of strengthening collaboration between the stakeholders.

There are several organisations and agencies in Manokwari working with issues that are strongly related to REDD+ and pro-poor development. Two central NGOs are for instance *Perdu* and *Paradisea*.

Perdu is an NGO that is working with strengthening local community to manage their natural resources sustainably. The organisation has been operating in the area since 1999. They work with local community to teach them about cultivation of agricultural resources. Perdu tries to facilitate the community with how to manage non-timber forest products, for example how to make the raw material to a product ready to be sold, “for instance how to make oil from the red fruit”. In addition they help community with planning of land use. They engage the people by talking with groups of people and organising women groups, and then the different groups learn from each other about how to manage agricultural products. Perdu also tries to link the community products to be sold at the market in the towns. Sustainability and concern for future needs are important. Perdu also tries to have consultations with the local government to get them to make local regulations about land use and permits. Now the locals do not need a permit for only having a small farm, but they need it if they want to manage and make more use of the forest. Perdu is not responsible to the government, but they try to give recommendations to the government about how they can integrate sustainable principles to government programmes. The regulations and rules for forest use and cutting of trees seem to be unclear to many people, or at least they are not followed properly. Pak Mujianto in Perdu says that local communities are cutting trees to sell to cooperations and local market, making timber an important source of income. In the past this was legal, but now it is not, because the local government has not given permit. Pak Mujianto says that even those who have customary rights to the forest are not allowed to cut and sell trees without a permit, but they still do. Because of this lack of consistency in both following of and maintenance of local regulations, Perdu tries to advocate and facilitate this to the community. In Manokwari they have started to try to supervise the cutting of trees. The government should know the area where the timber comes from, what species, who the owner is, and to whom it is being sold. Furthermore there are quotas per month. Pak Mujianto says that the permit should guarantee this process, and says that this has started in Manokwari, but not in other regencies yet.

Paradisea foundation was founded in 1999 and has been collaborating with different organisations. It is currently collaborating with the Rainforest Foundation Norway (RFN) in a period from 2008 to 2012. The organisation is situated in Sanggeng in Manokwari town and Rudolf Wondiwoy is the director. Pak Wondiwoy says that the main goal of the organisation is to conserve the forest in agreement with local communities. According to their pamphlet, the vision of Yayasan Paradisea is “to conserve the forest in the bird head region by managing sustainable forest by the local community and the government”. To accomplish this vision

they follow with the mission “to reach an agreement with the local community concerning the village spatial using development and utilization and the protection pattern of natural resources supported by the government in terms of policy and collaboration at 4 target areas in the interior of bird head region”. They are trying to make an ecological corridor for conservation in the Arfak Mountains, where the birds can fly freely, according to Pak Wondiwoy. Their main goal is to get an agreement with local communities about conserving the forest. In Mokwam they have for example started an ecotourism programme with endemic bird watching where they get local and outside visitors. Ecotourism is one way to help and include the local people in conservation programmes, and can be a first step to see that the forest has value and thus make the community involved. They also conduct mapping of the inhabitants and communities in the areas. Both with a view for the ecological corridor, and also because there are no clear boundaries according to customary laws, which Paradisea think it should be. The eight field staffs are collecting data on social, economic and cultural issues, for land spatial planning. To obtain development and reducing poverty they will give the data they collect to the governor.

Pak Wondiwoy says that it will be hard to implement REDD+ in the local community with its high technology and methodology. Their own programme is even difficult to implement among the people. If the REDD+ scheme gets clear on government level, then Paradisea can be a part of it. Paradisea is already working on community mapping and trying to make clear boundaries, and they have appropriate staff to do this.

The United Nations Development Programme (UNDP) also has a branch in Manokwari. The objective of the People Centre for UNDP in West Papua is to improve capacity of government staff, local community and civil society organisations. They have currently four targeted areas in West Papua. In North Manokwari they deliver service to the community and help with economic development. Through a University volunteer scheme they send volunteers from UNIPA, to the villages to assist with development of the community. In Fakfak for example they have built a resource centre, where the community can study and get information about economy, education and health issues. They help with capacity building and try to figure out what is best economic development for each community, e.g. how to get their products to the market, maintenance of health services and education situation. All this information is conducted by the volunteers. UNDP does not provide facilities, they give capacity building of human resources, such as nurses and teachers. If a community need

electricity or water, they can propose to the government that they should get this. The success of the Millennium Development Goals in West Papua will be pressured by the forest, hence one need to try to find another way to increase economic development.

These three organisations have knowledge and expertise on different issues that are all related to development and conserving of the forest. Hence, they may prove useful in the implementation of REDD+. Perdu for example are working on engaging the local community in sustainable agriculture, and how to best use the forest and its products. So maybe Perdu can work as a way to spread information to the local communities. They seem to have gained trust from the locals and are trying to engage the people, and can thus be of great value to REDD+ by using their skills to raise the local people's awareness and disseminate information.

Pak Wondiwoy in Paradisea mentions how their organisation can be useful to REDD+, namely by community mapping, and sorting out boundaries. Community mapping and establishing of clear boundaries are important to make the benefit sharing and funding from REDD+ fair to the people living there. Moreover, UNDP are working with capacity building of people and staff at different levels, and can thus contribute to raise people's awareness and make them more capable of handling the issues with REDD+. Furthermore they are mapping the development conditions in the communities, and can thus be guidance to how the benefits from REDD+ can be used in a pro-poor manner, and thus trying to achieve the MDGs. By using these organisation's expertise, knowledge and resources, it is possible to reduce transaction costs, and improve efficiency.

In addition there are some central government agencies which are natural to cooperate with when talking about REDD+; for example the Forestry Department, The Forestry Agency, and Forestry and Plantation Agency. In addition, to enable the co-benefits of REDD+ it is essential that other organisations and agencies are involved as well, for instance the Planning and Development Agency. Moreover, it might be useful to collaborate with agencies that have knowledge about the current situation regarding specific areas that may need development, such as education agency, health agency and so forth.

The Forestry Department (covers both Papua provinces) seem to be one of the institutions in Manokwari/Papua that knows the most about REDD+ so far. They have a research group which are doing carbon research and dealing with the technical issues, so they have for instance started to measure carbon content, and counting carbon density. Another research

group in Bogor are working with social and economical problems related to REDD+ implementation.

According to the head of the Forest Agency (district level), their job is to manage forest and forest products, protection of forest, and to monitor the distribution of forest products. They have four working areas: a) Planning of forest area (e.g. of degraded forest area for rehabilitation and forest production area to be conserved). b) Community empowerment, c) management of forest potential and d) forest protection.

The Forestry and Plantation Agency at the province level are currently recounting forest cover to know the area and the forest richness and potential, both regarding timber and non-timber products. They also do community mapping, to map customary rights and accommodate them to make them legal.

The main job of the Planning and Development Agency of the province is to help the governor to plan development projects in the province both for long-term and middle-term periods. Here they synchronise proposals from villages, sub-districts and districts. It is the final step before governor and Parliament. They also have standard operational procedures to synchronise with NGOs, and they are considering environmental aspects before starting development plans, as well as being engaged in conservation.

Furthermore, the University (UNIPA) in Manokwari have a Forestry Faculty where there are professors, researchers and students that have useful knowledge and ability to assist with the implementation of REDD+.

Both the Dean at the Forestry Faculty, Rudi Maturbongs, and the head of Forestry Department believe that it is necessary with an independent institution to supervise the process and the distribution of the money. Pak Thomas Nifinluri in the Forestry Department says that the institution should consist of professionals from different organisations and levels of government. In Papua especially, there is still lack of human resources i.e. educated and skilled personnel, hence it may be necessary to get people from the outside, and/or start thorough training of people. One should also improve the information strategy, maybe collaborate with NGOs and maybe a key person, a tribe chief for example, and simplify the

information so that it is comprehensible to the local people. How to allocate the resources that may derive from the REDD+ implementation is the main issue, according to Pak Thomas.

Making some kind of inter-organisational partnership or collaboration seems to be a good idea to synchronise people's expertise and work, and to be able to benefit from the already existing pool of knowledge and abilities. It will also be more cost-effective and efficient instead of setting up all new organisations and institutions.

#### **6.4.4 REDD+ implementation and poverty alleviation**

Research Question 3:

*How should the REDD+ programme be implemented and how can the funding be used most efficiently for co-benefits such as pro-poor development?*

Chapter 6.4 presents many issues concerning REDD+ implementation, and how it can be used to reduce poverty. It has been pointed out in this paper that factors that may hamper the implementation of REDD+ is for instance unclear ownership of forests, weak governance and frequent corruption, as well as the fact that most countries (applicable to REDD+) do not have good data or the skills and systems to measure changes in forest carbon. All these aspects apply to communities in Indonesia and Papua, hence it is important to be aware of this and work actively to assess these issues before implementing REDD+.

Furthermore, it will be important to raise people's awareness and engage the local people in the process. Studies show that in many cases the local people feel left out from the decisions made by the government. Which is wrong considering it is the local people in the forested areas that most likely will be affected by REDD+ policies. It is also likely that the local people will be more susceptible to possible changes if they feel like a part of the process, and are made aware of the possible benefits.

Another important prerequisite for efficient pro-poor REDD+ implementation is to establish clear rules for benefit sharing and funding, as well as supervision of these efforts. The issue of uncertain land ownership and unclear boundaries need to be addressed properly to be able to allocate the benefits equitably. Customary rights need to be evaluated and recognised.

The local NGOs and government agencies have a lot of knowledge and expertise about the issues of REDD+ and poverty alleviation, as they are already working with similar issues, such as conserving the environment and developing communities. It would be helpful to make use of the resources that are already present. To synchronise the different expertise in some kind of partnership will be more cost-effective and efficient and, provide better coordination.



## 7.0 - Conclusion



**Photo 5: The tropical rainforest in Manokwari Utara**

The main objective of this thesis was to find out if, and how, co-benefits/funding from REDD+ could lead to poverty alleviation in the village communities in Manokwari Utara. The emphasis has been on what kind of issues that need to be addressed before implementing REDD+, - the prerequisites of a proper programme implementation.

Throughout this paper, I have presented information and history about Indonesia that can shed light on the country's current situation and its "REDD+ readiness". Indonesia's political history by going from a highly centralised state to virtually transfer to decentralisation overnight, led to a shift in power structure. However, the following years some of this power were retaken by the government to keep control over the forest resources. Now it has left Indonesia in a state of confusion and insecurity regarding what rules and regulations to follow. Papua, as one of the poorest and least developed provinces in Indonesia has gotten a huge advantage with the Special Autonomy Fund. However, the government institutions are still relatively new, and skilled human resources are still lacking.

## **7.1 Limitations**

The fieldwork took place in January/February 2010, and a lot has already changed/happened since then regarding REDD+. It is a constantly ongoing process, and it can be difficult to keep/get the information updated.

As already mentioned in the methodology chapter, there might be some bias in the answers from the village respondents, especially because of the District Officer's presence. Furthermore, some information might have gotten lost in translation, between the interpreter and the respondent, and/or between the interpreter and the interviewer.

According to my interpreter, many of the local people are not used to have and/or express their opinions about issues, hence some of the answers, might not be very thought-through, and my interpreter sometimes asked some leading questions to help them answer. Some of the interviews could profitably have been better prepared on beforehand. The interview situations sometimes came quite abruptly as we were trying to make an appointment, but ended up doing the interview right away instead. Hence, the lack of time for preparation may have impacted the quality of some of the interviews.

## **7.2 Main findings and recommendations**

Considering the findings about people's development state it is evident that the local people acknowledge the need to improve the level of education, and business opportunities. These are of course interconnected, as better education improves their ability to get a better job. In addition they need basic things such as better health facilities, clean water, sanitation, electricity etc. However, the main thing seems to be lack of job opportunities. The villagers think that the government should arrange more opportunities, and make it easier to get a job. Moreover, the local people need guiding and supervising to become self-sufficient and achieve sustainability. Findings show that they are not very good at managing money. They live on a day to day basis, and do not bother about saving. In this respect I believe it would be useful to invest the funding from REDD+ in specific projects and programmes that can engage the local people to help themselves. Not just simply providing money or food, which is not sustainable in the long run. This is also linked to the vast problem of corruption in

Papua, which proves that proper plans and supervision is necessary to get the benefits to the right people.

There are several considerations that need to be assessed before implementing REDD+ in Manokwari Utara. First of all the relationship between the government and the local people need to be improved. The way it is now, the people in the villages do not feel included in the decisions that are made, and they do not feel like their needs are being taken into consideration. Furthermore, the dissemination of information, laws and regulations have to be improved. There are clear discrepancies in what the Forestry Agency say about forest management, and what the local people think. According to both CBNRM programmes and Ostrom's CPR institutions, it is important to take local people and their traditional knowledge and aspirations into account. The local people have to be properly engaged in a way that would want them to take part in the REDD+ programme. The incentives for implementing REDD+ has to excel the reasons not to.

The discrepancy around forest management is also related to the issue of land ownership and customary rights. After decentralisation, customary rights have been more acknowledged, but there is still some vagueness about what rights that is legitimate. There is a need to establish clear boundaries, and delineate the tribes and customary rights, to be able to get equitable benefit sharing from REDD+. When carbon rights are sold to the REDD+ scheme, it is likely that it will restrict long-term land use options for this forested area. The impact these restrictions on land use might have on the local people have to be considered.

The complexity and unfamiliar concepts related to REDD+ systems may also create a problem. In this regard, lack of information and understanding may prevent the poor from accessing REDD+ benefits, and may reduce their ability to obtain the best possible outcomes. Local people may also even generate resistance to REDD+ schemes even before they are fully aware of the possible benefits from it. Therefore, it is necessary to raise people's awareness, and make it understandable to common-people. Furthermore, capacity building of human resources will be both beneficial for the REDD+ implementation, but also for the people's ability to improve their own lives. The more education and knowledge people get, the easier it becomes to generate income and live a sustainable life.

Furthermore, to make the REDD+ implementation more effective it is useful to take advantage of the already existing organisations that are in the area, and related agencies which work with similar issues. Arranging a partnership will reduce duplication, lower the transaction costs and is more efficient.

The REDD+ scheme is comprehensive and complex. There are many issues that have to be addressed before an equitable and effective implementation can be reached. Especially when the focus is on how REDD+ can benefit the poor. The multiplicity in the Indonesian societies may be an obstacle that makes it more difficult to implement REDD+. The important thing is to acknowledge this and try to accommodate the REDD+ scheme to the various attributes of the different communities.

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Figure 1: Map of Indonesia, source:

<http://www.worldatlas.com/webimage/countrys/asia/ciamaps/id.htm>

Figure 2: Map of Papua, source:

<http://www.worldteampapua.org/mapscurrent.html>