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Indonesian law and leality in the Delta : a socio-legal inquiry into laws, local bureaucrats and natural resources management in the Mahakam Delta, East Kalimantan

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2 | The setting

This chapter deals with the various settings in which the different forms of resource use discussed in this book took place and where state jurisdiction was exercised. The settings concern geography, ecology, social structure, livelihood and policy. This book argues that the settings have directly or indirectly influenced the making and the implementation of laws and regulations concerning natural resources use in the Mahakam Delta. Conversely, the laws and regulations have also impacted those settings.

2.1 GEOGRAPHY: AN INACCESSIBLE AREA

Due to its geographical location and formation, the Delta is not an easy place to reach. It is a remote area indeed. The Delta is located at the mouth of Mahakam River, in the eastern part of Borneo Island (see Map 2.1). The Delta is in front of the Makassar Strait, which separates the two islands Borneo and Sulawesi. The Delta itself comprises of a chain of 92 small islands (totalling 1,000 km²), in addition to three main tributary rivers and dozens of connecting rivers (Bapedalda Kukar and PKSPL IPB 2002, p. III-1 and 3).

Map 2.1: Mahakam Delta with research location indicated



None of the 92 small islands can be reached by road; the only way to reach them is by boat. To reach and leave the Delta, most of the Delta villagers use a small boat for four to five people locally named *dompeng* and *ketinting/ces*. A few of the residents as well as non-residents use privately rented boats. Thus, there is no public sea transportation that the government provides. Likewise, there are no public river ports that the government has built in the Delta (Bappeda Kutai Kartanegara 2010, p. 58).¹ The three main villages of the Delta are approximately two hours away by speedboat from Anggana, the capital city of Anggana sub-district, three hours away from the Provincial capital Samarinda, and four hours by car and boat from Tenggarong, the capital of Kutai District. The trip can take longer if made by a small boat such as a *dompeng* or *ketinting*. Yet it can be faster if a large speed boat (called sea-truck) is used, which is common for the employees of Total E&P Indonesia, the gas and petroleum company which has been operating many production units in the Delta. The rental price for a one way trip on the speedboat is approximately US\$ 390-490.

It is only Muara Pantuan and Tani Baru that have been connected by a wooden road. Therefore, to travel around the islands, the villagers mostly use the *dompeng* and *ketinting*. *Dompeng* and *ketinting* are both motor boats with an engine size of 13-24 and 5-12 horsepower respectively. Actually, most of the time, the villagers use the *dompeng* and *ketinting* for fishing. There is hardly a household in the Delta that does not have a *dompeng* or *ketinting* (Lenggono 2004, p. 136).²

The story about the remoteness and inaccessibility of the Mahakam Delta has long been known, for it has been used many times as a hiding place by pirates, independence fighters and fundamentalist Islamic activists. In the course of the Sultanate period (late 15th century-1844) and the Dutch administration (1844-1942), pirates had hidden or taken a rest in the Delta before they raided the ships which were loaded with exported forest products and imported goods (Magenda 1991, Peluso 1987, Knapen 2001). In independent Indonesia, during the period of the Revolutionary War (1945-1949), some nationalist fighters had hidden away in the Delta to escape the Dutch army (Magenda 1991). More recently, in the Reformation era, two allegedly fundamentalist Islamic activists hid in the Delta before an Indonesian anti-terrorism special force finally discovered them in Tanjung Berukang, Sepatin village in November 2002.³ Lately, some immigrants from South Sulawesi who were

1 A recent draft of the District's development planning reveals that water transportation is still an important means of transportation in the District, for only small parts of its areas are otherwise accessible. Since founded in 1957 up to present, the District has had eight public river ports and no public sea ports. Meanwhile, oil and gas companies have built five sea ports for private use. See Bappeda Kutai Kartanegara (2010, p. 58-59).

2 A 2003 survey shows that 77.5% of the residents of the three villages of the Delta had a *dompeng*, while 15.5% had a *ketinting*. See Rachmawati (2003, p. 48).

3 'Imron Akui Terlibat Bom Bali', *Suara Pembaruan* daily 14/1/2002.

sought for crimes, such as gambling and drugs, moved to the Delta to hide away from a police investigation.

2.2 ECOLOGY AND NATURAL RESOURCES

The ecological formation of the Delta is highly determined by the mangrove ecosystem. The ecosystem has subsequently determined the existence of various flora and fauna. The dominant vegetation of the Delta consists of trees that are associated with mangrove. The three most common trees are *bakau* (*rhizophora*), *nypa* (*nypa fruticans*) and *api-api* (*avicennia*). The *nypa* appears most frequently, covering approximately 60,000 ha and thereby making it one of the largest *nypa*-growing areas in the world (Dutrieux in Kusumastanto 2001, p. 63).

Being predominantly a mangrove ecosystem, the Delta is a favourite place for various fish species to feed, spawn and nurse. The mangrove provides the fish with abundant nutrition. The calm of the waters and the shade cast by the leaves of the mangrove trees furthermore make it a suitable place for spawning and nursing the young (Soetrisno 2007, p. 24-25). Not only is the Delta a favourite place for the fish, some mammals too take advantage of the abundance of the Delta. One of these is the 'proboscis monkey' (*nasalis larvatus*), an endemic species. The 'proboscis monkey' lives of the leaves of the *bakau* and *api-api* (Alikodra et al. in Soendjoto et al. 2006, p. 35).

Meanwhile, the geological development of the Delta has allowed for the existence of fossil fuels. Scientists widely believe that the oil and gas reserves in the Delta do not originate from the sea, but that they were formed by sedimentation flowing downstream (Tokita et al. 2005). In addition, the tidal nature of the Makassar Strait also contributed to the content of the reserve.

Due to this ecological formation, the Delta has a large biodiversity on one hand and rich natural resources on the other. Traditionally, the two most prominent valuable natural resources of the Delta are fish and petroleum. In terms of biodiversity, the Delta has 129 species of fish (Sandjatkiko 2005, p. 54).

Besides providing valuable resources and biodiversity, the ecosystem of the Delta also has a basic ecological function. The Delta protects the environment from destruction by for example abrasion, sedimentation, sea water intrusion and pollution (Aspar in Kusumastanto et al. 2001, p. 28, Husein 2006). The way the mangrove ecosystem offers protection is by managing the effects of the tide and predators for a multitude of fauna that find the mangrove a very suitable reproduction area (Bourgeois et al. 2002: 23).

However, over the last fourteen years, the basic ecological function of the Delta's mangrove forest has been tested due to major environmental changes resulting from large-scale and destructive natural resources use. It has repeatedly been suggested that deforestation namely the conversion of mangrove

forest into particular uses is the main cause of environmental destruction in the Delta (Bapedalda Kutai Kartanegara and PKSPL IPB 2002, p. III-46; Bourgeois et al 2002, p. 2; Lembaga Afiliasi Penelitian dan Industri (LAPI) ITB and Bappeda Kabupaten Kutai Kartanegara 2003, p. IV-10; Noryadi et al. 2006, p. 23). Deforestation has caused other forms of environmental destruction, such as abrasion, water intrusion, depleted fishery resources and reduced biodiversity. In most cases where the mangrove forest has been converted – as suggested by bureaucrats, academics, politicians and NGO activists – the purpose was to build shrimp ponds. Some suggest that new settlements and the installation of pipes and other facilities by the oil and gas companies might have been other reasons to convert the forest (LAPI ITB and Bappeda Kabupaten Kutai Kartanegara 2003, p. IV-5; Hidayati 2004, p. 98; Syafrudin 2005, p. 17 and 18). The latter have allegedly caused water pollution (Dinas Perikanan dan Kelautan Kutai Kartanegara 2007c, p. 8).

Finding reliable data concerning the scale of mangrove conversion into shrimp ponds is not easy, as the figures vary according to how the satellite imagery is interpreted. However, in general it can be observed that deforestation has increased considerably over the last decade (Sidik 2009). Moreover, some researchers in the early 2000s presented useful figures in this regard. According to Dutrieux (2001, p. 63-64), in the early 1980s, the entire Delta was covered by extremely dense vegetation, composed of different mangrove species. In 1992, as a result of the initial emergence of large-scale shrimp ponds, deforestation began with 3,700 ha of deforested area in 1992. Within three years, in 1996 the figure reached 15,000 hectares. As the price of exporting shrimp rocketed due to devaluation of the Indonesian currency against the US\$ during the Asian financial crisis, it triggered a more massive opening of new shrimp ponds resulting in 67,000 ha deforested area in 1999. Deforestation peaked in 2001, when it reached 85,000 hectares (Dutrieux 2001, p. 64).⁴

As mentioned, the deforestation was followed by abrasion, water intrusion, depleting fishery resources and reduced biodiversity. The best indicator of the water intrusion is the extent to which upstream cities like Samarinda and Tenggarong have had water intrusion especially during the dry season. When the water has reached the two cities then drinking water supply emerged (Sidik

4 In 2002, a Total E&P sponsored research report reiterated the above figures (Bourgeois et al. 2002, p. 28-31). These figures have also been widely used by various stakeholders of the Delta including the regional and local government. Some regional government-funded research reports, government planning documents as well as multi-stakeholder official documents repeatedly quote these figures. For instance see Bapedalda Kutai Kartanegara and PKSPL IPB (2002, p. III-46), LAPI ITB and Bappeda Kabupaten Kutai Kartanegara (2003, p. IV-10), Tim Sosialisasi Kawasan Delta Mahakam (2008, p. 7), UNDP (2009, p. 4-5), and Bengen et al. (2011, p. 17). Recent figures of the scale of the conversion are contested. Some say conversion is still continuing and has reached 90,000 ha (Bengen et al. 2011, p. 17), whereas others say the areas have been naturally reforested, as many shrimp farmers have abandoned their shrimp ponds due to decreasing productivity. For the latter observation see Dinas Perikanan dan Kelautan Kutai Kartanegara (2007c).

2009, p. 5). Abrasion can lead to sedimentation on the bottom of river basin. In the last decade, there has been ten times as much abrasion as in the previous decade (UNDP 2009, p. 5). At the same time, during high tide, local people were affected as some settlement areas, shrimp ponds and sport fields were flooded.

Deforestation also causes a depletion of the fishery resources and reduction of the biodiversity. Once the mangrove ecosystem disappears the fish lose their favourite spawning and nursery grounds. In association with the depleting fishery resources, there is a significant reduction of biodiversity, which is especially catastrophic for endangered species such as 'proboscis monkey' (Sandjarmiko et al. 2005; Bengen et al. 2011).

The other environmental destruction that the local people often complained about is soil and water pollution which decreases the productivity of the shrimp ponds. In the period 1996-1999, when pond productivity peaked, a one-hectare pond could yield 20-40kg of tiger shrimp and 600kg of wild shrimp and crab (Bourgeois et al. 2002, p. 65). One study even stated that a one-hectare pond could yield up to 200-1,000kg of tiger shrimp (Dinas Perikanan dan Kelautan Kutai Kartanegara 2008c, p. 25-26). More recently, productivity has fallen to only 21,5kg/ha and 24,5kg/ha of tiger shrimp and wild shrimp respectively (Noryadi et al. 2006). Regarding the cause of the decreasing productivity, while company employees, bureaucrats and academics believe that white spot disease (see footnote 8) caused the decrease, the shrimp farmers suspected that oil spillage from the oil and gas extraction caused the pollution (Aspar 2001, p. 28).

2.3 HUMAN SETTLEMENTS

The history of human settlement in the Delta is closely related to the history of war and the economy, which are the two main factors that have motivated people to move to and settle in the Delta. In relation to war, migration to the Delta was an effort to escape conditions at home (Vayda and Sahur 1985, p. 94; Vayda and Sahur 1996, p. 9). Particularly the Bone War (1859-1860) and the Banjarmasin War (1859-1863) led to migration to the Delta and to East Kalimantan at large.

Despite the fact that traders had for long sailed along the tributary rivers of the Delta (Peluso 1987, Magenda 1991, Linblad 1985, 1988, Zwager 1996), none of them had established any settlement there. The main reason was because they feared the pirates who had been actively operating across the Mahakam Strait before the Dutch colonial government pacified them by the nineteenth century (Black 1985, p. 281; Peluso 1987, Magenda 1991).⁵ Therefore,

5 For a further account of how pirates existed along the Makassar Strait see Zwager (1996) and for how they existed in South-East Kalimantan in particular see Knapen (2001).

the first people who braved to settle in the Delta were Bajau people.⁶ It occurred some time in the early nineteenth century. It is important to note that during the Sultanate and colonial period, Bajau people were often associated with pirates (Healey 1985, p. 3). However, the first settlement was inland in order to avoid raids from the pirates (Levang 2002, p. 4).⁷

The second wave of migration to the Delta occurred in late nineteenth century when a group of Bugis people migrated from the Pasir district due to the Dutch army carrying out an attack on the Pasir Sultanate. This group did not start a new settlement and joined the Bajau people in the two already existing settled areas. New settlements were established when the Bajau and Bugis people in the Delta moved to places nearer to the sea. These waves of migration took place before the Second World War. Apart from the fact that the coastal area was now safer due to the pacification of the pirates by the Dutch, the main reason for the move was an epidemic of smallpox. The two new settlements they established later became the largest villages in the Delta, called Sepatin and Muara Pantuan. In the 1940s, other people trekked further south which eventually resulted in a new village, called Tani Baru.

The next settlers in the Delta hardly established new settlements but joined the existing settlements, even though they came in large groups. In the late 1950s, a large wave of migrants, mostly Makassar people, came to the Delta, escaping the Indonesian army which hunted anyone who was alleged to be a supporter of the Kahar Muzakar rebellion. In the Delta, they mostly moved into the hamlets of Sepatin and Muara Pantuan. Sometime in this period, a small group of Banjar fishermen coming from up-stream of the Mahakam river also moved to Sepatin, and established a new hamlet called Sungai Banjar.

Meanwhile, the establishment of settlements also occurred on the Kutai mainland, such as in Salo Palai and Saliki villages. Settlement on the Kutai mainland took place later than on the coastal Delta (i.e. the islands), namely in the early twentieth century (Levang 2002:4). Besides the Bugis people, Banjar people were also involved in the settlement. The latter moved to the Delta due to the Banjarmasin War in the nineteenth century (Magenda 1991, p. 3; Knapen 2001). Settlement in the mainland further occurred in the 1950s when some Makkasarese from South Sulawesi and Banjarese from South Kalimantan

6 Bajau or Bajo people are considered as the earlier inhabitants of the major coastal areas of East Kalimantan before the arrival of the Buginese. In this period, Bajo people had an important role as link between the Chinese traders and indigenous population of East Kalimantan. Apart from that role, Bajo people were also known as pirates, which explains why the Kutai Sultan had asked help from the Buginese in order to control the Bajo people. As the attempt was successful, people started to associate Bajo people with a bad character. As a result Bajo people gradually started to hide their cultural identity and identify themselves as Buginese. In the Mahakam Delta, they sometimes call themselves Bugis-Bajo Wijaya (N.d., b).

7 The first settlements were located in Pemangkar and Mangkubur. Both are currently under the administration of Sepatin village.

moved to the Delta in order to avoid the chase of respective Kahar Muzakar and Ibnu Hazar followers.

Settlements in or migrations to the Delta as of the New Order regime (1965-1998) up to the present have almost all been driven by economic reasons. Lenggono (2004) states that the reason for the migrants to move to the Delta in this period is to pursue a better life. In addition, in terms of ethnic background, the migrants during this period are more diverse for the group also includes Javanese people. Yet, in terms of place, the migrants in this period have not actually discovered new places, but rather reside in already existing settlements. Some are temporary settlers, as they originate from nearby districts and sub-districts so they regularly return to where they came from in the first place.

The heavily economic-oriented migrations commenced in the late 1960s (1968-1970). Most people from South Sulawesi, mostly from Bone and Wajo, moved to East Kalimantan hoping to be able to find employment in non-mechanized timber extraction, popularly named as *banjir kap*. Their relatives who lived in the Delta encouraged them to come to East Kalimantan arguing that there were ample job opportunities in timber extraction (Vayda and Sahur 1996, p. 9). However, after the timber extraction came to an end in 1970 when the national government introduced a centralized timber management policy, the migrants who previously worked in the timber extraction chose to stay in the Delta instead of returning to South Sulawesi.

Not long after the *banjir kap* ended, other migrants from South Sulawesi and Java came to the Delta to pursue two types of labour opportunities. Firstly, a job with an oil and gas company. Given the migrants were mostly unskilled, the companies offered them a position as surveyor, speedboat driver or security guard. The two oil and gas companies commenced their operations in 1972 and 1973 respectively. Secondly a job as a fisherman for one of the two cold storage facilities, which were established in 1974 and 1975. The two cold storage facilities needed more fishermen who would catch fish and sell it to them through local Buginese leaders, the *punggawas*. About the extent to which the companies impacted the population size in the Delta, Levang (2002) says:

Until the beginning of the 1970s population in the Delta was scarce. Everything was to change with the start of oil exploration and production.

The Delta continued to attract migrants through to 1997 and 1998. In this period Indonesia was hit by the Asian financial crisis which dramatically weakened the value of the Indonesian currency against the US dollar. The crisis caused a steep price hike of all Indonesian export products including shrimps. The rise in prices made some villagers rich, and their stories spread across South Sulawesi. Apart from the success stories in that period, some shrimp ponds in South Sulawesi were suffering from a massive white spot disease

which Java had experienced earlier (Bailey 1988, Bailey 1997, Jhamtani 2003).⁸ The attraction that the Delta offered this time was stronger than before; the migrants did not only originate from South Sulawesi but also from nearby districts of the mainland. The migrations also included many temporary workers originating from East Java.

2.4 SOCIAL STRUCTURE

In the seventeenth century, La Ma'dukelleng, Prince (Arung) of Singkang, led a number of Buginese, wishing to escape the Bone War, to flee to East Kalimantan. The Kutai Sultan pleasantly welcomed them and granted them a place to settle. In their new homeland, East Kalimantan, they pleaded (Ind. *bersumpah*) to move away from a stratified or socially ranked society as they had formerly practiced in their homeland. As a result they expected to apply a new system, in which each person would be of equal social status (Ind. *sama rendah*).⁹

Unfortunately, the dream never came true. As several studies point out, instead of moving away from the stratified social system, the Bugis migrants across Indonesia in fact continued this system. The stratified system here mentioned is one based on a patron-client relationship, called *punggawa-sawi* or loosely understood as a leader-follower system.¹⁰ Yet, according to Pelras (1996), the original patron-client system has been adapted from a historical political to an economic relationship. The adapted patron-client system is characterized by ties where the patron ensures that the basic life needs for the client are provided, while the client ensures the supply of labour (Vayda and Sahur 1996, p. 15). However, despite the fact that the present *punggawa-sawi* system has been influenced by modern capitalism it is not purely a capitalistic mode of production given the system developed a level of reciprocity and charity between patron and client, as Lenggono (2004, p. 133; Lenggono 2011, p. 307) points out. This is exactly what currently occurs in the Mahakam Delta.

Despite the fact that the patron-client system in the Delta started to lack social cohesion, and became more secular and individualistic, the *punggawas* have taken over some of the state roles e.g. as service provider. This makes the system considerably influential. According to Powell and Osbeck (2010, p. 8), in the absence of governmental and social services, the patron-client

8 White spot disease (*ichthyophthirius multifiliis*) also known as Ich, is a parasite that most tropical fish will at one time or another have to deal with. These parasites can be fatal to a fish and getting rid of them takes persistence (see at <http://www.wikihow.com/Treat-Tropical-Fish-With-White-Spot-Disease-ich>), accessed on 7/10/2011).

9 See Magenda (1991) and Levang (2002, p. 23).

10 For an account of how elementary the Bugis' patron-client ties are in their homeland see Pelras (1996), and for Bugis abroad see Acciaioli (1989), and Vayda and Sahur (1996).

system has become an important institution in the daily life of fishermen and shrimp farmers. Within the system, rather than acting narrowly as an employer, the *punggawas* also act as wholesale traders, service providers and dispute settlers (Levang 2002, Lenggono 2004, Timmer 2010, p. 707). Indeed, the main role of the *punggawas* in the Delta is as money lender and/or trader. They lend money to poor people (fishermen, shrimp farmers) to enable them to engage in fishing and hold aquaculture. In the case of aquaculture, usually the *punggawas* provide their own land to be cultivated by the workers. It is widely known that the *punggawas* have large parcels of land.¹¹

Yet in other cases, the *punggawas* do not only provide land, but also vessels and seeds, and meals before the first harvest. In return, the fishermen and farmers sell their catch or harvest to the *punggawas* until the loan is completely repaid (Lenggono 2004, p. 218). Not only do the *punggawas* provide money for operational purposes, but also for house repairs, medical and school fees and ceremonial obligations (Timmer 2010, p. 707).

Nevertheless, economic dependence is not the only pillar that underpins the leader-follower system. There are also two social pillars that support the system, namely kinship ties and the social status of *haji* – having made a pilgrimage to Mecca. The *punggawas* can easily ask their relatives from South Sulawesi or elsewhere in East Kalimantan to work for them due to their social status. From their relatives' point of view, the *punggawas* are respected people due to their economic achievements. The fact that almost all *punggawas* have a *haji*-title, further increases their social prestige. For a commoner Bugis, a *haji*-title endows social status rather than religious status, because the title indicates that someone is economically capable (Wijaya n.d.a).

Having such important economic and social position, it is inevitable that the *punggawas* further influence the running of the village affairs, as Lenggono (2004, p. 117) points out:

[...] as leaders who have many followers, the *punggawas* have quite strong influences, and they are also taken into account in village policy making.

As mentioned before, some followers even involved their *punggawas* in settling a dispute with a company. Actually, the participation of the *punggawas* in dispute settlement is to ensure that their followers will repay part or all of their debts. Yet, whatever the reason behind the support, in most cases when a *punggawa* is involved in a particular dispute, he is the one who shapes the

11 Even though no study mentions the exact size of all land owned by the *punggawas*, some studies indicate that there is a concentrated land ownership in the Mahakam Delta. According to Bourgeois et al. (2002, p. 37) some people have a thousand hectares. A fisherman who used to be the head of a neighbourhood of Sepatin village confirmed the finding by pointing at a *punggawa*, who held almost a thousand hectares of land. The area is constituted by fifty ponds, which all are located in Sepatin village. Interview J, the head of Benati neighbourhood of Sepatin village, 22/2/2010.

followers' ideas. Therefore, the companies will prefer to listen to the *punggawas* rather than the village government official. A recent case on compensation in Muara Pantuan shows the strong influence of a *punggawa*. In favour of the company, the village head urged for the 300 fishermen to accept the compensation that the company offered, but most fishermen refused the offer as they were bound by the *punggawa's* decision to claim a higher compensation than the company offered.

In spite of its considerable role, the patron-client system is actually not the only factor that influences the social structure. Social classification based on the period of settlement, and/or profession is another factor that influences the system. The earlier migrants regard themselves as *bugis kalimantan* or *orang asli* (native people) while they perceive the later migrants as *bugis sulawesi* or *pendatang* (Wijaya n.d.a). Meanwhile, those who work at the oil and gas company are socially more respectable than the fishermen or pond workers. Meanwhile, the migrant occupants possess more land than the native occupants as the latter have sold most of their land to the migrant occupants. The native-migrant divide always becomes manifest during the election of the village head. Apart from the Bugis people, there are also thousands of Javanese people who work as labourers for the Bugis people. Most of them live in the Delta temporarily.

2.5 ECONOMIC ACTIVITIES AND LOCAL LIVELIHOOD STRATEGIES

The economic activities and local livelihood strategies of the people living in the Mahakam Delta reflect the situation in the Province and the District on a small scale. As is the case in the Province and District, the abundance of natural resources influences the nature of economic activities and livelihood strategies of the Delta inhabitants to a great extent.

As mentioned before, the Mahakam Delta is rich in oil, gas and fish. Oil and gas alone contribute significantly to both national and local revenue. Recent figures show that Total E&P Indonesia and Vico, who operate in the Delta area, are jointly responsible for 43% of the total gas production in Indonesia and that Total E&P Indonesia also contributes 9% to Indonesian oil production (PriceWaterhouseCoopers 2010, p. 10-11). In the last five years, the Province has been responsible for around 31% of Indonesia's annual GDP and the majority of it originated from oil and gas revenues.¹² In fact, the Province ranked among the top three in terms of revenue from oil and gas in the country (Ahmad and Mansoor 2002). Even though only around 5% of the revenue was sent back to the Province in the form of shared revenue, this form of income still dominates the Provincial Annual Budget (Ind. *Anggaran*

12 See http://www.bps.go.id/tab_sub/view.php?tabel=1&daftar=1&id_subyek=52¬ab=1 (accessed on 8/11/2011).

Pendapatan dan Belanja Daerah abbrev. APBD).¹³ Shared revenue from oil and gas features even more prominently in the District annual budget. On average, shared revenue forms 70% of the total annual revenue. For instance, in the District 2011 budget, the shared revenue added up to US\$ 340 million out of the total annual revenue of US\$ 410 million.¹⁴ As a result Kutai District is dependent on revenues from oil and gas extraction especially since revenues from forest extraction have started to gradually decline.

The vast amounts of shared revenue do not necessarily benefit the Delta people, yet, as Levang points out, the presence of oil and gas extraction provides economic opportunities to the people.¹⁵ As most of the villagers are unskilled, they cannot work as managers, supervisors or technicians. However, some of them work as operators. More importantly, the way the local people have benefited most from the companies is by trading basic goods and services with the companies' salaried workers (Levang 2002, p. 7). Many studies concerning the sources of economic income or occupation of the people of the Delta show that apart from fishing and aquaculture, trade is another major occupation and source of economic income as well.¹⁶

Recently, due to the massive decline of shrimp pond productivity since 2002, many aquaculture farmers have deliberately generated disputes with the companies accusing them of pollution and hoping that the companies would pay compensation for the loss of shrimps (Bourgeois et al. 2002, Timmer 2010, Simarmata 2011, p. 177-196). Another way to deal with the declined pond productivity is the recent selling of land by pond owners to absent land owners who live in nearby towns or even in other parts of Indonesia (Bosma et al. n.d, p. 11).

Meanwhile, even though the revenue in terms of numbers of fishery and shrimp cultivation is not as large as the revenue of oil and gas extraction, this

13 Shared revenue has been an issue of discussion for both the Provincial and District governments as well as for civil society groups. These groups demand that the central government increases the share to at least 10%. For recent discussions concerning this issue as recorded in the local media see 'Kepala Daerah Diajak Judicial Review ke MK. Vico: Kaltim Idealnya Dapat Bagi Hasil 50%', *Kaltim Post* daily, 6/1/2011, and 'Kaltim tak Minta Otonomi Khusus. Gubernur Kaltim Singgung Minimya Dana Pusat', *Kaltim Post* daily 17/1/2011.

14 See 'APBD Kukar 2011 Didominasi Dana Perimbangan', *Kaltim Post* daily 6/1/2011. For the dominant role of oil and gas in the District's economy before fragmentation (*pemekaran*) in 1999, see Casson (2001, p. 9-10).

15 One reason why the people living in the Delta do not benefit from the shared revenue is because the sub-districts near the Delta receive a smaller share of the revenues as distributed by the Kutai District government than other sub-districts, especially those that are situated nearby the District capital. For instance in 2011, Anggana and Muara Jawa sub-districts received a share of only around \$US 12 and 1 million respectively. See 'Warga Muara Jawa Blokade Jalan Protes Infrastruktur Jelek, Minim Alokasi APBD, and 'Anggana Minta 'Mahar' 206 M Konsekuensi Tak Bergabung untuk Kutai Pesisir, in *Kaltim Post* daily, 10/1/2011 and 18/2/2011.

16 Examples of these studies are Bourgeois et al. (2002); Hidayati et al. (2004) and Sandjati et al. (2005).

sector has attracted most of the people to the Delta.¹⁷ Many studies have pointed to the prominence of the occupations of fishermen and aquaculture workers in the Delta.¹⁸ In Anggana sub-district for instance, most of which is situated in the Delta, 50% of its total population work as fishermen and aquaculture farmers (Bosma et al. n.d., p. 6, Bapedalda Kukar and PKSPL IPB 2002, p. III-48). Yet, the fishermen too have their disputes with the companies. They have seen the amount of fish decline due to the use of destructive equipment. From the dispute settlements they expected to receive compensation from the companies whom they accused of ruining the fishing nets or disabling them from fishing in particular areas.

Nevertheless, fossil fuels, fish and shrimps are not the only resources of the Delta; the people of the Delta have other sources of income and occupations too. As already mentioned, some people use the forest to make a living, for instance by making nypa roof covers and cutting mangrove (*rhizophora*) trees for making the frame of a julu net (Rachmawati 2003, p. 36). The production of nypa roofs is even quite substantial; as 1,164 households of Anggana and Muara Jawa sub-districts are involved in it, it creates sufficient income (Rachmawati 2003, p. 36, Bapedalda Kukar and PKSPL IPB, p. III-45). Moreover, there are some other activities that are associated with fishing and shrimp farming. Regarding the former, people make money by catching crab, collecting seeds, making crab traps, and drying salted fish. Concerning the latter, people work as pond-caretakers and shrimp collectors (Bosma et al. n.d., p. 6). Next to the activities directly associated with the oil and gas companies and fish and shrimp sector, a small number of people in the Delta serve as civil servants or military officers.

2.6 OVERVIEW OF STAKEHOLDERS

It is possible to discern two categories of stakeholders or key actors in the Delta. The first group provides government services, while the second group is directly involved in private production and trade (Bourgeois et al. 2002, p. 3).¹⁹ The first group consists of civil servants both from the central as well

17 Actually, the Kutai Kartanegara District catches the most amount of fish compared with other districts in the Province. On average the District brings in approximately 40%-45% of the total fish on offer of the Province. See Pemerintah Kabupaten Kutai Kartanegara (2006, p. 77), Dinas Perikanan dan Kelautan Kutai Kartanegara (2007b, p. 1 and 4), and Dinas Perikanan dan Kelautan Kutai Kartanegara (2008b, p. 1).

18 See for instance in Bourgeois et al. (2002); Hidayati et al. (2004) and Sandjatmiko et al. (2005).

19 Meanwhile Powel and Osbeck (2010) divide the stakeholders in the Delta into three categories: owners, actors and clients. The owners are the Ministries of Internal Affairs and Forestry; the actors are the Provincial and District governments; the clients are farmers, companies and traders.

as regional and local government, including people at the district, sub-district and to some extent village level. In the second group there are numerous stakeholders. Fishermen and shrimp farmers are stakeholders who are engaged in primary production, while shrimp collectors and cold storage companies engage in trading. Oil and gas companies engage in production as well as in trading. The stakeholders of this group who engage in production could also be called resource users. They are right holders when they have rights over the resources legitimized by either formal, non-formal rules or practices (Harkes 2006, p. 45).

The above definition of a stakeholder is only one of many. From a policy point of view, it may be useful to distinguish between those who make or determine decisions and actions, and those who are affected by the decisions and actions of others. In this view, the former group could be regarded as active stakeholders and the latter as passive stakeholders (Grimble and Wellard 1997, p. 176; Grimble et al. N.d, p. 3). In line with this distinction, groups of stakeholders could also be divided based on their influence on policy formulation as well as its outcome (Reed et al. 2009, p. 138). Regardless of the distinction or variety of stakeholders they all have in common that they have an interest or stake. As Persoon (in Harkes 2006, p. 45) noted, stakeholders are people who make a claim or have an interest in a resource. Here, 'interest' refers to the utility and welfare of the stakeholder (Grimble and Wellard 1997, p. 175).

The list of stakeholders of the Delta as mentioned above would be longer if NGOs, academics and even international actors like importing companies were included (Bapedalda Kukar and PKSPL IPB 2002, p. 61-62; Hidayati et al. 2005: 3,). Regarding the NGOs and academics, even though they do not engage in either production or trade, they are perceived to play a role both in the promotion of community rights and sustainable resource management.

The various stakeholders of the Delta have demonstrated different viewpoints and concerns when they were asked to discuss the Delta's problems. About the differences, Bourgeois et al. (2002, p. 90) write:

The bounded perceptions of each make discussions difficult. It leads to misinterpretations or misunderstandings, rendering agreement hard to reach and can even lead to type of conflicts seen in the Delta.

Sometimes particular stakeholders have different ideas on what is important. For example, while some stakeholders notably oil and gas companies, local officials, university lecturers, NGO activists, and some farmers thought that mangrove rehabilitation was important, the *punggawas* believed the opposite, for it would not benefit them (Hidayati 2004, p. 102-103). They do not see themselves as having an active role in the rehabilitation (Bourgeois et al. 2002, p. 87).

Many studies have suggested that the difference in interests leads to conflict amongst stakeholders (Faculty of Fisheries and Marine Science of Mulawarman University 2010: 18). It is important to underline that the conflict is not only between the resource users or right holders, but between the various levels of government as well (Hidayati 2004, p. 104, Hidayati et al. 2005).

2.7 CONCLUDING REMARKS

On the basis of the above observations, one could say that the Mahakam Delta is a vital frontier area. Its nature reserve, ecological functions as well as biodiversity demonstrate the importance of the Mahakam Delta. Due to its wealth in natural resources, the Mahakam Delta has attracted many migrants who have moved to the area in the pursuit of a better life. The extraction potential has also attracted large-scale private companies. At the same time, due to its remoteness, many people have used the Mahakam Delta as a place to hide in times of war and unrest.

The richness of the Mahakam Delta has boosted state revenue and has had implications for the livelihood of the local people. As for the government, particularly oil, gas and fishery have long made significant contributions to its income. Meanwhile, the local population benefits from the richness by conducting fishing and shrimp cultivation, working for the companies or providing goods and services that the companies need. These settings may in one way or another all affect how the institutional arrangements of resource use in the Mahakam Delta work, as the following chapters will show.