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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9 Law-based management of space

9.1 INTRODUCTION

Many initiatives aimed at addressing the devastating environmental and social problems of the Mahakam Delta eventually led to spatial management as the ultimate solution. The initiatives suggested to (re)design the spatial (land use) planning of the Mahakam mainland and the Mahakam Delta, and to establish a management body alongside. The initiatives departed from the assumption that the existing spatial plan was inadequate to cope with the devastating environmental and social challenges. At some level, ideas to revise spatial planning for the Mahakam Delta derived from the perception that spatial management did not exist in this area, given that all resource users seemed to be free to carry out resource use regardless of the location.

Chapter 5, 7 and 8 of this book have extensively described how rights issuance and formal control over resource use did not occur in accordance with prevailing formal rules. The chapters explain why users were able to use the resources in almost any area of the Mahakam Delta rather than particular designated areas. The circumstances eventually tempted some local bureaucrats, researchers and local residents to think that there was no spatial plan yet for the Mahakam Delta. The insight is in line with the idea that, generally speaking, the Mahakam Delta lacks a full system of government and rules (Bourgeois et al. 2002; Timmer 2010). Therefore, initiatives which proposed new or redesigned spatial planning for the Mahakam Delta, often implied the idea of establishing a new body that would implement a new spatial plan.

From a spatial management point of view, Chapter 5-8 discussed the granting of rights, as one way through which control over resource use was exercised. Looking at another area of spatial management, this chapter focuses on the making of maps and zones. In that way, this chapter identifies another cause which has prevented right granting in the Mahakam Delta from being in accordance with existing formal rules, and which has led to confusion in dispute settlements.

To start, this chapter will present in Section 9.2 various major and minor spatial planning projects developed by different government agencies. The term 'major spatial plan' here refers to spatial planning of an area which covers large parts of the Mahakam mainland and Mahakam Delta. This includes an Agreed Forest Land Use Plan, State Mining Zone (SMZ), and Provincial Spatial Plan. Meanwhile, a 'minor spatial plan' refers to spatial planning regarding

a small part of the Mahakam Delta. This includes fishing zones/grounds and shipping lanes. Besides those already existing spatial planning projects, new or redesigned spatial planning proposals are also described. This includes the Detailed Spatial Planning of the Mahakam Delta (DSPMD) and two very recent initiatives on spatial planning, namely the provincial strategic zone (*kawasan strategis provinsi*) and the district marine protected area (*Kawasan Konservasi Laut Daerah* abbrev. KKLD).

Section 9.3 will discuss the extent to which spatial planning has been implemented by the central, provincial and district government through zoning programs and arrangements. The next section (Section 9.4) deals with some legal problems which emanate from the prevailing spatial planning projects and their realization. The chapter ends with some concluding remarks.

9.2 Various spatial planning projects in the Mahakam Delta

9.2.1 Officially declared spatial planning

As of the late 1960s the state has enacted some laws and regulations which have included stipulations concerning zoning in the Mahakam Delta. In the 1960s alone, both the central government e.g. the Ministry of Mining, and the Provincial government set up zones for mining areas and fishing grounds respectively. To implement the Law of 1960 on Oil and Gas, in 1967 the Minister of Mining designated 34,125 km² of the northern part of the eastern coast of East Kalimantan as a SMZ (Section 6.2). This popularly-called Mahakam-Bunyu SMZ included the Mahakam mainland and the Mahakam Delta. Likewise, as part of implementing national legislation, in the second half of the 1970s, the government of East Kalimantan Province and Kutai District reiterated the Fishing Zones Division of the national fishery regulations (see Section 7.2). As described in Section 7.2, besides reiterating the Fishing Zones Division, the Kutai Fishery Regulation of 1978 on Fishing within the Administrative Territory of Kutai District designated eleven fishery sanctuaries. As neither the fishing grounds nor sanctuaries fully excluded non-fishery resource use in the zones, conflicts between oil and gas companies and fishermen emerged immediately. To settle the conflicts, the Directorate-General of Fisheries of the Ministry of Agriculture, followed by the Governor and Kutai District Head, issued Circular Letters which introduced a certain degree of exclusion of fishing in the vicinity of the platforms of oil and gas companies.

The planning of the Mahakam Delta changed considerably in the 1980s following the 1983 forest designation. Whereas the spatial planning of oil and gas resource was not well-connected with the preceding fishery resource spatial planning, it was well lined up with the forest designation. The forest designation supported by some subsequent forest regulations determined that non-forest resource use, including the use which had existed prior to the designa-

tion, could still take place within the designated forest subject to a number of conditions. The forestry regulations listed oil and gas resource use as permitted forms of non-forest use, yet they excluded aquaculture particularly in the Production Forest or in any Forest Area situated on islands of less than 10 km² (see Section 5.2).

At the start of 1991, the Provincial government led by the Provincial Development Planning Agency, started to make a Provincial Spatial Plan (henceforth PSP). Due to the 1983 forest designation, which had declared the entire area of East Kalimantan as Forest Area, the making of the PSP met with resistance from the Ministry of Forestry. The following quote from a presentation of the Provincial government illustrates the uncomfortable situation that the Provincial government found itself in:

> The PSP aimed to cover the whole administrative territory of East Kalimantan, yet Forest Areas existed where forestry regulations were applied.[1]

As this seemed impossible to realize following resistance from the Ministry of Forestry, the Provincial government decided to only turn the entire conversion forest as stated in the 1983 forest designation into non-forest area. One significant legal consequence from introducing the 'non-forest area' would be that the building of offices, residential areas and estate plantation would not necessarily need a permit from the Minister of Forestry any longer.[2] The permit for the use of the non-forest area could now be obtained from either the Governor or District Head/Mayor. The reason why the capacity to issue a permit was transferred to them, is that a non-forest area is under the jurisdiction of the agencies responsible for land such as the National land Agency and its regional offices, PONLA and DONLA. The Provincial government eventually issued the PSP in 1993. It came into force officially in 1995, after the Provincial government obtained approval from the Minister of Home Affairs in the same year.[3]

As already described in Section 5.2, the Ministry of Forestry objected to the 1993 PSP, given that they found it incompatible with the 1983 forest designation. One point of incompatibility that they considered important concerned the use of the term 'non-forest area (Ind. *bukan kawasan hutan*)', over which they thought that the jurisdiction of forestry agencies could cease to apply. The Provincial government did not resist against this objection, and revised

1 The presentation was entitled, 'Rencana Tata Ruang Wilayah Provinsi Kalimantan Timur 2009-2027 (Spatial Plan of East Kalimantan Province 2009-2027)'. Presented at a consultation made by a Task Force of the Draft PSP with the Center for Gazettement and Forest Area Use Plan (Pusat Pengukuhan dan Penatagunaan Kawasan Hutan), the Ministry of Forestry, on 15 January 2008.

2 Interview HI, 26/6/2008.

3 The Provincial government endorsed the 1993 PSP through Provincial Regulation No. 12/1993. The Minister of Home Affairs approved of the PSP through Letter No. 63/1995.

the 1993 PSP in 1999 by dropping the disputed term and changing it into Non-Forest Cultivation Area (Ind. *Kawasan Budidaya Non-Kehutanan* abbrev. KBNK).[4] Although in essence there was not a distinctive difference between the two terms, the Ministry of Forestry still felt they kept their territorial control by using the term KBNK. After the revision, the 1999 PSP divided the space of East Kalimantan into three main zones, namely Forest Cultivation Area (KBK) (49.93%), protected zones (26.52%) and KBNK (23.55%).

There is no clear division yet between a KBK, protected zone and KBNK in the territory of Kutai District due to the long delays in drafting the Kutai Kartanegara Spatial Plan (KSP). At present, with regard to the size, the table below shows the differences between the KSP and the 2001 Agreed Forest Plan.

Table 9.1: Kutai Kartanegara Spatial Plan according to the PSP and 2001 Agreed Forest Plan

PSP 1999 (ha)	*2001 Agreed Forest Plan (ha)*
Protected zone (358,402.99)	Forest Area (2,637,657)
Forest Cultivation Area (1,321,841.54)	Other Use/APL/KBNK (88,653)
Non-Forest Cultivation Area (891,519.74)	
Total: 2.571.764.27	Total: 2.726.310

Meanwhile, as said, the PSP included five plots in the Mahakam Delta as KBNK, spread over five different small islands. The five plots originally came from a survey held by the PONLA in the late 1970s and early 1980s and rediscovered by the RePPProT in the 1980s (see Section 5.2). The two surveys found that the plots were used for residence, coconut plantations and a small number of shrimp ponds.

It should be noted that at the time the 1993 and 1999 PSPs were endorsed, the land use of the Mahakam Delta was different from the 1970s and 1980s, in the sense that the number of residential areas, plantations and shrimp ponds had increased. It was reported that in 1996 shrimp ponds in the Mahakam Delta covered 15,000 ha. If compared to a 1986 figure of only 420 ha, this is a tremendous increase. Between 1992 and 1994, the residential area increased from 73 ha in 1992 to 125 ha in 1996 (Kusumastanto et al. 2011, p. 22; LAPI ITB and Bappeda Kabupaten Kutai Kartanegara 2003, p. II-5). These figures even exclude land that was used by oil and gas companies for installations, office buildings as well as housing. By 2005, the oil and gas companies opera-

4 The revision was made through Decree of Governor No. 050/K.443/1999. The dispute on those terms is actually surprising, since Law No. 24/1992 on Spatial Planning did not recognize the term non-forest area as the 1993 PSP introduced. The law only recognized the terms 'protected zone' and 'cultivation zone'.

ting in the Kutai District combined, had used 2,834 ha of land or 2.5% of the total land area of the Mahakam Delta (LAPI ITB and Bappeda Kabupaten Kutai Kartanegara 2003, p. IV-28; Kabupaten Kutai Kartanegara 2005, p. 9). Yet, it is unlikely that the 1993 and 1999 PSP took into consideration the vast changes in land use.

In the tidal trap case as described in Section 6.1, Total E&P Indonesie sent a letter to the provincial police office, reporting that the owners of ten tidal traps had been endangering public shipping lanes. The company based its allegation on laws and regulations concerning sailing. Pursuant to shipping regulations, the central government e.g. the Ministry of Public Transportation is assigned to map public shipping lanes.[5] In order to produce the map, there is first need for a topographical survey. The shipping regulations define a public shipping lane as a marine area that has to be safe for sailing. However, the shipping regulations only prohibit the activities that can disable navigational devices to a limited extent. Any offender of the provision can face imprisonment or a fine.[6]

9.2.2 Proposed spatial planning

There have been some proposals aimed at redesigning the spatial planning of the Mahakam mainland, in addition to a proposal that suggested small conservation zones in the Mahakam Delta. A third, recent proposal deals with both the terrestrial and marine areas of the Mahakam Delta.

Redesigned spatial plan

Ideas to form a new spatial plan for the Mahakam Delta have existed for more than a decade. Although motivated by similar concerns about environmental depletion and conflicts among users, the various ideas provide different solutions on how to solve the problems of spatial planning in the Mahakam Delta. Earlier initiatives implied that there should be protected or conservation areas in the Mahakam Delta. However, recently policy-makers have no longer held that protected or conservation areas are necessary for the Mahakam Delta, despite their concern about sustainable management.

The initial idea of forming a new spatial plan for the Mahakam Delta dates back to the early decentralization period in 2000. An inter-sectoral meeting was held in Jakarta in November 2000 led by the Indonesian Institute of Sciences to discuss the continued environmental degradation of the Mahakam

5 Article 12 of Law No. 21/1992 on Shipping as replaced by Law. No. 17/2008 (Article 119[2] and 187 [1]), and Article 3 of the Regulation of the Minister of Public Transportation No. 68/2011 on Marine Public Shipping Lane.

6 Article 11 and 100 (1 and 2) of Law No. 21/1992, and Article 139 of Law No. 17/2008.

Delta. One of three follow-up activities which resulted from the meeting, was to review and reorganize the spatial planning arrangement of the Mahakam Delta. Two other recommendations were to establish protected areas and rehabilitate the deforested mangrove forest of the Mahakam Delta (Kusumastanto et al. 2001, p. 8). In the course of 2001 the wish for a new spatial plan for the Mahakam Delta was repeatedly voiced during some stakeholder gatherings in Jakarta and Balikpapan. After several meetings, two participatory workshops held in mid-2002 and organized by a research team whose research was jointly funded by Total E&P Indonesie and Inpex, successfully pressured the Kutai District government into converting the ideas into concrete action.[7] At a workshop which was attended by the First Assistant of the Kutai District Head, the participants of the meeting agreed to prioritize two actions, notably designing a land use scheme and creating a new permanent management body, whose members would consist of stakeholders' representatives (Bourgeois et al. 2002, p. 94).

Meanwhile the Head of Kutai District government had established an *ad hoc* task force, the so-called Task Force on Integrated and Sustainable Management of the Mahakam Delta.[8] The Task Force was assigned six tasks, namely policy formulation, law enforcement, public awareness, data collection and analysis, coordination, and recovering the basic ecological function of the Mahakam Delta. The Task Force's organization consisted of an advisory body, steering committee, working group, and facilitator. The Kutai District Head chaired the advisory body, while his deputy chaired the steering committee. All related Kutai agencies, sub-districts and village governments sat in three thematic working groups together with private companies, NGOs, and university lecturers, the latter playing a role as facilitator as well. The recovery of the basic ecological function of the Mahakam Delta – one the Task Force's main tasks – had to be done in accordance with the existing spatial plan.

The Kutai District government was also supposed to make the Detailed Spatial Plan of the Mahakam Delta (DSPMD).[9] Yet, to reduce the government's

7 During an international workshop in 2001, stakeholders of the Mahakam Delta could compare their knowledge on the Delta's issues with that from other South-East Asian countries. Besides discussing the current environmental condition of the Delta, the participants also discussed possible sustainable management options. Six months after the international workshop, a smaller follow-up meeting was held in Balikpapan. Here the Head of Kutai District government and the Minister of Marine Affairs and Fisheries signed a memorandum of understanding. See Badan Lingkungan Hidup Provinsi Kalimantan Timur (2011).

8 The Kutai District Head issued the Decree No. 180.188/HK-458/2001 to establish the Task Force.

9 Pursuant to Law No. 24/1992 as replaced by No. 26/2007 on Spatial Planning, spatial planning encompasses general and specific/detailed spatial plans. General spatial planning comprises of national, regional and district spatial planning, while specific/detailed spatial planning could be island spatial planning, spatial planning for strategic zones, and the detailed spatial planning of a district/municipality.

cost of such plan, Total E&P Indonesie eventually proposed to bear the costs of doing so. However, this suggestion led to such suspicion about the objectivity of the plan (Hidayati et al. 2008, p 76), that a consultancy agency from Bandung was hired to make the plan. After about two years, the draft DSPMD was finally accomplished.

The draft DSPMD had to balance several different interests. Firstly, a balance had to be found between the environment and human resource use. Secondly, it had to find a balance between various different resources use, namely housing, shrimp farming, and oil and gas exploration and extraction. In other words, the draft DSPMD had to facilitate various uses, so that they could take place alongside each other. Nonetheless, the draft also remarked that due to the relatively greater economic and social importance of the oil and gas exploration for the state, it had to be prioritized and treat other resource use as secondary (LAPI ITB and Bappeda Kabupaten Kutai Kartanegara 2003, p. I-1-2).

Having taken into account the abovementioned concerns, the draft DSPMD divided the space of the Mahakam Delta into three main uses or zones, namely a protected zone, KBK and KBNK. The 'protected zone' chiefly consists of the river and green belt. The KBK is concentrated in areas where mangrove trees are still growing. The KBNK, on the other hand, is located in areas where housing, shrimp ponds and oil and gas explorations exist. In terms of size, the first two zones cover approximately 40% of the total size of the Mahakam mainland and Mahakam Delta combined, leaving 60% for the KBNK. The table below illustrates the division in detail.

Table 9.2: Projected Land Use Plan of the Mahakam Delta

No.	*Land use plan*	*Size (Ha)*	*Percentage of total land area*	*Composition*
1	Protected zone			Mangrove does not cover less than 40%
	a. Coastal green belt	20,836.875	19	
	b. River green belt	5,164.525	5	
2	Cultivation Forest Area (KBK)			
	a.Brackish water mangrove	1,435.802	2	
	b.Seawater mangrove	17,187.498	15	
3	Non-Cultivation Forest Area (KBNK)	62,703.296	56	Cultivation cover not less than 60%
	a. Shrimp ponds	180	1	
	b. Residential area	2,194.041	2	
	c. Petroleum exploration			
	Total size	*109,702.038*	*100*	*100%*

The idea was that areas that were designated as residential would be also be suited for the development of public facilities (such as schools, health clinics, religious convention places, sport and recreational facilities, markets and public areas, roads and electric installations). It was envisaged that any resource use in the Protected Zone and KBK was prohibited, unless it would not change the natural function of the zones. As a result, resource use was only possible in the KBNK. The draft DSPMD did not only determine the spatial division, it also stipulated the rules on right granting as well as how to exercise rights. In addition, the draft DSPMD suggested ways on how to implement the Draft effectively. For instance, it recommended guidance for field officials to prevent confusion amongst them, the installation of boundary marks, and, last but not least, to encourage stakeholders to be actively involved in rehabilitation (LAPI ITB and Bappeda Kabupaten Kutai Kartanegara 2003, p. V-4-5). The draft DSPMD went even further by suggesting technical matters, such as criteria for ideal pond construction (LAPI ITB and Bappeda Kabupaten Kutai Kartanegara 2003, p. VI-3-6).

Meanwhile, apart from taking into account an equal balance between users as well as a conducive climate for investment, the draft DSPMD was also required to fit with a Draft Kutai Spatial Plan (DKSP), which was also being formulated.[10] Like the draft DSPMD, a recent DKSP (2007-2027) primarily divided Kutai District into a protected zone (28.67%), KBK (39.21%) and KBNK (32.13%).[11] It is clear that the draft DKSP proposed a different division than the draft DSPMD regarding the respective KBK and KBNK allocations. The DKSP divided the Mahakam Delta into a protected zone, production forest and aquaculture zone.

With regard to development, the DKSP divided Kutai District into five centers of economic growth. Each center had its own distinctive potential and environmental carrying capacity. Development was prioritized and advanced in those five economic centers. Economic growth in those centers was expected to trickle down to adjacent regions, ensuring more equality among regions.

The DKSP considered the Mahakam Delta as an important region and therefore gave it more attention than other areas of the Kutai District. Firstly, the DKSP designated that two of the abovementioned five centers of economic growth were placed in the Mahakam Delta. They were Muara Jawa and Muara

10 Since its foundation in 1959, Kutai District had never had its own spatial planning. Therefore, its development had been run through broader guidance from national and provincial spatial planning. The 1999 decentralization, which bestowed more power on district governments to make their own plans, apparently did not help the Kutai District government to realize their long-awaited spatial planning. The Kutai District government did not even accomplish this, when Law No. 26/2007 on Spatial Planning set a deadline for every district/municipality to have their own new spatial planning ready by April 2010. Since 2001 until recently, two attempts have been made to draft the DKPS: for the period of 2001-2011 and 2007-2027.

11 See Badan Perencanaan Pembangunan Daerah (2006, p. 4-10-25).

Badak sub-district. Secondly, the DKSP adopted the Mahakam Delta as a strategic area, thereby allowing for prioritization of the spatial plan (Badan Perencanaan Pembangunan Daerah 2006, p. 5-27). Great opportunities for development, on one hand, and environmental degradation on the other hand, were reasons why a spatial plan for the Mahakam Delta had to be prioritized. Although its environment is in a critical state, the DKSP still projected part of the Mahakam Delta as KBNK. Oil and gas, and fishery were envisaged as favorite sectors, which would receive support from other sectors such as agriculture, plantation, tourism, education and health.

Concern over the environmental depletion of the Mahakam Delta continued when in 2005 the 1999 PSP was revised. As a result, the Mahakam Delta was categorized as a provincial strategic zone, due to its depleted environmental condition as well as economic opportunities.[12] A 'provincial strategic zone' is defined as a zone that due to its important economic, social, cultural and environmental character is given priority for spatial planning. Applying the same definition, a Government Regulation of 2008 on National Spatial Planning determined that the Mahakam River which is a bigger area than the Mahakam Delta was a national strategic zone.

As said the draft DSPMD, DKSP and Draft Revised Provincial Spatial Plan proposed new designs of spatial planning of the Mahakam Delta. Whilst the 1999 PSP and 2001 Agreed Forest Plan only set aside around 6,000 ha for KBNK, the new designs proposed an area of 65,000 ha, more than ten times its size. This means that the proposed spatial planning suggested to convert around 60,000 ha of KBK into KBNK. The 60,000 ha was actually included in the 171,746 ha and 1,385,203 ha that the Kutai and Provincial government respectively proposed for forest conversion.[13] The proposal for the forest conversion was submitted to the Ministry of Forestry in 2006, after thirteen District Heads/ Mayors had agreed on the Draft Revised PSP earlier that year. Yet, at the time of writing, the Ministry of Forestry still rejects the proposal, arguing that the Ministry recently converted over one million hectares of Forest Area in East

12 Opportunities for economic growth, and underdevelopment or isolation are two other considerations to decide whether particular areas should become provincial strategic zones. See Provinsi Kalimantan Timur (2006, p. 64).

13 The thirteen districts/municipalities of East Kalimantan had similar reasons, when they proposed forest conversion. They argued that many parts of the Forest Area had been occupied, even before the Forest Area existed. This inevitably turned into conflicts between local people, the government and forest concessionaires. They also pointed at the vast development of some cities and their need for new land, as another reason for forest conversion. For a place like the Mahakam and Bulungan Delta particularly, the district government argued that they needed the forest conversion, because the status of Forest Area of the Delta did not allow them to control the vast development of shrimp ponds. It was assumed that if the proposed areas were converted into KBNK, the district governments would be able to exert control, for the area would fall under their authority (Kronologis Pembahasan 2007).

Kalimantan and that the Provincial and District governments have only awarded one-fourth to private companies (Kronologis Pembahasan 2006).

Another proposal

In 2009 the Kutai Fishery Agency started to develop a conservation zone for mangrove crab (*Scylla sp.*). The idea came from the fact that the number of mangrove crabs had declined due to large-scale conversion of mangrove forest and overexploitation. A research project funded by the Kutai Fishery Agency and run by local academics showed that during the period of February to August 2009, crab production had gone down from 19,950 kg to 12,760 kg (Dinas Perikanan dan Kelautan Kutai Kartanegara 2009, p. I-5). For a suitable area of crab conservation the researchers recommended Letung and Berau Kecil Island of Muara Badak sub-district. They recommended an area of around 3,900 ha (Dinas Perikanan dan Kelautan Kutai Kartanegara 2009, p. IV-42).

In accordance with the Law of 2004 on Fisheries and Government Regulation No. 60/2008 on Conservation of Fishery Resources, conservation of fishery resources aims at protecting endangered species, preserving biodiversity, keeping the ecosystem in balance, and establishing sustainable fishery resource use. A fishery conservation area can be divided into several zones, notably a primary zone, sustainable fishery zone and utilization zone. Fishery resource use is allowed in any zone, except in the primary zone. According to a formal procedure, the Minister of Marine Affairs and Fisheries is authorized to endorse fishery conservation, after receiving a proposal from the governor, district head or mayor. Once the plan is endorsed, a committee needs to be formed to carry out delineation.

Meanwhile, even though the 2009 research on the assessment of area for crab conservation was eventually carried out, different views arose on the significance of fishery conservation for the Mahakam Delta. A middle-ranking officer, who was in charge of conservation affairs, was reluctant to carry out the research at the beginning, arguing that in case of large-scale environmental depletion as in the Mahakam Delta, people needed real action rather than discussing concepts. Another practical reason, at which she pointed, was that she was new in her job, and therefore did not sufficiently comprehend the planned activities of her predecessor.[14]

9.3 Implementation of the rules regarding spatial plans

This section examines the extent to which spatial planning is visible on the ground, so that government officials can properly implement policies as well

14 Interview MEA, a head of Section for Conservation Issue of Kutai Fishery Agency, 19/8/2009.

as settle disputes between users, and so that users know in which particular area they can or can not exercise their rights. It also examines the extent to which officials comply with the declared spatial planning

The tidal trap case described in Section 6.1 is a perfect example to illustrate the extent to which all declared spatial planning proceeded to delineation in order to produce maps or boundary marks on the ground. The participants of meetings held in late August and early September 2009, who represented the Kutai District government, asked an official of the Port Administration of the Ministry of Public Transportation if traffic lights (Ind. *rambu-rambu*) had been installed to indicate the public shipping lanes. He could only respond that traffic lights had been installed in a few spots. However, he could not be certain if any traffic lights were located in the areas where the tidal traps were installed. Since that he could not give a convincing answer about the traffic lights, other participants of the meetings doubted whether the tidal traps were really located inside the public shipping lanes, as Total E&P claimed. A retired head of section on fishery resource surveillance of the Kutai Fishery Agency revealed that the traffic lights of shipping lanes did not exist in the field. What actually existed in the field were the traffic lights of Total E&P which they needed for the navigation of their transportation.[15]

Meanwhile, the Kutai District government officials strongly requested from the Total E&P Indonesie employees to deliver information on all the company's platforms and installations, where fishing was prohibited. The request came up, as the company's employees could not present the maps of the prohibited and restricted areas. The idea was that if the information was available, it could be used to settle upcoming disputes. The employees could not present a map of their work area, which was attached to their PSC, either. On the ground, instead of installing boundary marks lining off the prohibited and restricted areas, the company had merely installed notification boards, which did not indicate the areas. Safety had therefore been the primary reason for installing the notification boards. Moreover, as said, the company had not installed boundary marks, because they did not believe they had exclusive rights over the sea (see Section 6.4).

As said, both the designation and delineation of the Forest Area of the Mahakam Delta were hardly communicated to land holders. The officials of the TUFPS concealed their original purpose and the legal impact that their activities might have on the land holders (see Section 5.5). As a result, villagers removed most of the boundary marks, leaving the Forest Area to be hardly visible on the ground (Syafrudin 2005, p. 75). Likewise, hardly any notification boards could be found on the ground indicating it was Forest Area, as many field officials have long suggested. The idea to install notification boards came later in 2008, when a team formed by the Kutai District Head held two meet-

15 Interview MK, 6/12/2011.

ings with villagers to publicly announce the existence of the Forest Area. However, as the boundary marks were installed in the interest of securing oil and gas extraction, the installation of the boundary marks was only done on two islands where the company's installation and platforms were located.

Not only has the lack of boundary marks invited land holders to challenge the existence of the Forest Area, it has also caused some regional and local government officials and the employees of state-owned companies to behave as if there is no Forest Area in the Mahakam Delta. In the 1980s, Pertamina warned a private company which wished to construct 2,000 ha of shrimp ponds on two islands of Muara Badak sub-district, that the two islands were located within a state mining zone. Nevertheless, Pertamina was willing to award use rights to the company, on the condition that the company had to return the land, once Pertamina wanted to extract oil and gas in the area, without having to compensate the company in return.[16] Around the same year, the Provincial Fishery Agency bought three hectares of land from a villager of Muara Pantuan to be used as a demonstration plot. In 1987 and 1991 respectively, the National Land Agency sponsored land titling projects, which freed land holders from any fee. The land titling projects resulted in 891 ha of certified land.[17] The land purchase nor land titling took into account the prior existence of the Production Forest. Likewise, lawyers and judges who engaged in the land case trial, perceived that no Forest Area existed in the Mahakam Delta, because they found no trees growing on the disputed land during a field visit (see Section 8.4).

9.4 Legislation: identification of some problematic issues

It is generally recognized that different resource uses can jointly take place in the same area through partial utilization by different users. Indonesia's law on natural resources has actually adopted the recognition of different resource uses in the same area as a legal principle which, for instance, can be seen in forestry regulations. Indonesia's forestry law allows various different uses of forest resource in one particular area. For instance, authorities could issue a forest extraction permit in a Forest Area over which a permit for bee cultivation was already granted.[18] The application of the principle can result in coinciding regulations and natural resources use, without necessarily turning to incoherence. Legally speaking, the simultaneous existence of various forms of resource

16 Interview MK, 11/8/2008, and HI, 19/8/2009.

17 This land certification resulted from a project on land consolidation and redistribution held by the District Office of National Land Agency in 1986 and 1991 which took place in Sepatin and Muara Pantuan village of Anggana sub-district.

18 See Article 27 and 48(3) of Government Regulation No. 6/2007 concerning Forest Management, and the Formation of Forest Plans and Forest Utilization.

use, which are governed by different regulations have a legal basis through the Decision of the People's Consultative Assembly No. IX/2001 on Agrarian Reform and Natural Resources Management. Nonetheless, the Decree recommends synchronization as a necessary requirement to avoid disjunction between the different regulations on natural resources use (Patlis in Resosudarmo 2005, p. 240).

In contrast, spatial planning may turn to conflict under the following three conditions. Firstly, the regulations of different sectors do not mutually refer to one another in order to achieve what is called co-ordination in public administration literature. Secondly, designation and delineation aimed at implementing spatial planning do not take into account existing forms of resource use. Thirdly, there are hardly any boundary marks on the ground to indicate the delineation and designation.

As said, some national regulations have managed to refer to other regulations in relation to spatial planning. For instance, the forestry regulations refer to oil and gas regulations which were passed earlier (Section 5.2 and 5.4), and so do the fishery regulations to shipping regulations (Section 7.2 and 7.4). However, the regulations only included one-sided references. For example, forest regulations provide tenure security for oil and gas companies, but not the other way around, given that oil and gas regulations refer to land regulations on land, which in accordance with forest regulations are not enforceable in Forest Areas. Nor do shipping regulations refer to fishery regulations, when it concerns fishing zones. As a result, tenure security in one sector can coexist with insecurity in another sector.[19]

The fact that the oil and gas regulations did not refer to the 2001 Agreed Forest Plan, shows the disrespect of the oil and gas companies to the forestry spatial planning. As said in Section 6.4, Vico perceived itself not to be affected by the Agreed Forest Plan, given that they had been in the area before the designation had been issued. To some extent Pertamina also maintained the perception that it was not subject to the forestry regulations, when it claimed to be the owner of two islands in the Muara Badak sub-district. At present, when dealing with newly emerging land claims by local residents, Vico thinks that once it has acquired land from local holders through compensation, the government has granted them the acquired land (Hidayati et al. 2005, p. 43).

One important reason why cross-referencing has not been realized so that uncertainty remains with regard to particular spatial planning is the prioritization of particular sectors. Fishing zones and Agreed Forest Plans might not be fully implemented, given that they are supposed to advance oil and gas

19 Other authors regarded the non-mutual respect of the sectoral regulations as confusing. In this respect they also referred to the absence of a cadastral survey. In the cases that the sectoral departments were able to provide maps, confusion still arose given that their maps were based on different scales and detail. As a result, it is difficult to know the real status of land (RePPProt 1990, p. 50 and 185-186).

extraction. Similarly, the fishing zones have to consider public shipping lanes. It is true that the practice of prioritization respects rights by providing compensation to right holders, yet it has also led to barriers which restricted the ability of particular spatial planning projects to effectively achieve their goals. For example, the fishing zone could not protect the small-scale fishermen due to the presence of oil and gas installations in Zone I (Hidayati et al. 2005).

Due to the fact that the sectoral regulatory regimes and spatial planning lack cross-references, it is important to raise the question to what extent the above proposed spatial plans have addressed the one-sided references and attempted to provide a solution? The latter question is not solely concerned with the coordination between government agencies, but also with the extent to which fishermen and shrimp farmers are involved. To what extent has the proposed spatial planning been based on actual resource use in the Mahakam Delta versus an ideal-type or vested interests?

The absence of boundary marks on the ground has made compliance with the declared spatial planning with regards to right granting and control more difficult. As said, on some occasions the village heads were asked not to issue a land letter, if the land was located inside the Forest Areas. However, when village heads tried to implement the instruction, land holders spontaneously asked the village heads to show them the boundary marks indicating the borders of the Forest Area. Not only did the village heads fail to show the boundary marks, they were also unable to install marks as they did not have the authority to do so.

9.5 Concluding remarks

It is apparent that in the case of the Mahakam Delta the depletion of the environment and the conflicts over resource use do not result from an absence of formal spatial planning. Both for the Mahakam mainland and the Mahakam Delta a spatial plan exists. However, uncontrolled right granting which has generated environmental destruction and social conflicts, and a lack of cross-references in the existing regulations have tempted some key actors and scholars to believe that no spatial plan exists for the Mahakam Delta. This perception led to the suggestion of forming a new or redesigned spatial plan for the Mahakam Delta. Legal problems, such as the absence of cross-references in the existing sectoral regulations, and the absence of boundary marks are actually the most important reasons for people to disrespect the rights that have been granted in the making of spatial planning. Moreover, dispute settlement has been hampered considerably given that government officials have hardly ever been able to confirm in which zones the conflicts precisely took place, so that they could not determine if there had been a lack of compliance or not. In addition, the responsible government officials have not been

able to properly implement policies, because they themselves did not work in accordance with existing spatial plans.

Given that the makers of new or redesigned spatial planning have incorrectly assumed that hardly any spatial planning exists for the Mahakam Delta, we have reason to fear that such new plan might not be in accordance with and not even refer to existing spatial planning. Therefore a new spatial plan could easily lead to further problematic overlap.