Shifting Valuations of Sociality and the Riverine Environment in Central Kalimantan, Indonesia

Anu K. Lounela
Development Studies, University of Helsinki, Helsinki, Finland

ABSTRACT
This article explores how changing environmental conditions and practices connect with shifting forms and valuations of sociality in a Ngaju Dayak village in the radically transformed peatlands of southern Borneo. It proposes that the production of values and social relations is indivisible from the production of a livelihood through material means and dwelling in the local environment. The article describes how changing Ngaju orientations to social life and the riverscape have been interlinked with fluctuations in the local valuescape. The focus is on two distinct but overlapping forms of organising sociality and labour in the riverine environment, and how they have influenced and been influenced by the dialectically conjoined Ngaju values of solidarity and autonomy, and, more recently, by emerging economic value. It is argued that the valuation of sociality crucially reflects the changing valuation of land and nature and related politics of value within the local riverscape. Finally, the article shows that the radically transformed riverine environment sets limits on (imagining) environmental practices, forms of sociality, and how they are valued.

KEYWORDS
Sociality; values; rivers; peat; environmental change; imagination

Introduction
Late one day in February 2019, after a half-hour motorbike ride along the Sei Asem River into the forest, two Ngaju Dayak brothers and I came to a ‘rice field’ of sorts. We were about four kilometres from the main road and their village, close to a protected forest area in the western part of the Pulang Pisau district in the province of Central Kalimantan. Looking at the view, I tried to discern the rice field and spot the forest on the horizon, but all I could see was a waterlogged landscape with some lonely trees growing here and there. The older brother, Anton, pointed at an area near the place where we stood, saying that this was the rice field, although the harvest seemed to have failed. The rice field was partially submerged under dark, peat-coloured water; this was a swampland, out of which emerged some small plots of land with tall rice plants. Beside the unpaved small road in front of us, a canal crossed the peatland. Originally a river, it...
had been deepened, broadened, and lengthened some years back, thus becoming a waterway that people called a handel. A small, newly built wooden dam blocked the flow of the water in the river, and further on the waterway split in two. The water level was so high that it became impossible for us to continue the journey. It was only in 2015 that many hectares of rubber gardens had burned in a forest fire, causing severe distress and financial losses for the brothers’ father, who was also the head of the so-called handel group, the people who had rights to the land around the canal. He died in 2018 from cancer, and now Anton had to consider if he should continue in his father’s footsteps. He was greatly pained, thinking about the concerns of the handel group, the activities they should or could perform, land use and ownership rights, and the impact of recent national peatland restoration efforts, due to which canals had been blocked, causing river levels to rise such that water reached the gardens alongside the waterways when the rain was heavy. As used to be the case, most of the handel group members were kin, some living in the village but many elsewhere. He had inherited lot of land after his father died, forcing him to be active in the handel group together with his extended family, but he felt strongly that he could not become head of it, because of his young age, lack of knowledge of the waterway, and other duties.

This vignette serves to illustrate how shifting valuations of Ngaju sociality are entangled with the changing environment and waterscape. The article explores how the changing materialities of the waterscape shape and are shaped by sociality and values. In so doing, it focuses on the following questions: How are socialities valued? What forms of sociality are valued, and how is this exemplified through river-based activities? Particular attention is devoted to how the values of autonomy and solidarity, as well as economic value and the related value of ‘individualism’, are reflected in river-based activities and associated socialities. Theoretically, these questions relate to the recent anthropological rethinking of the concepts of sociality and values. For instance, the concept of sociality questions the idea of fixed and bounded social forms by denoting that ‘humans are continually coming into being through dynamic social processes, rather than being “socialized” into independent sets of rules, structures, customs, or meanings’ (Long 2015, 855). Emphasising the processual nature of sociality, as an ‘assemblage’, I will challenge the anthropocentric notions of sociality with Ingold’s (1996) and Tsing’s (2014, 2015) idea that sociality is more-than-human, thereby highlighting the role of the environment. Anthropologists have discussed landscapes as material and produced by humans (Ingold 2000), socionatural and meaningful (Árnason, Vergunst, and Whitehouse 2012), and political (Lounela, Berglund, and Kallinen 2019). Drawing on these arguments, I will argue that landscape is produced through environmental practices that represent the importance (value) of actions for persons and social groups (see Graeber 2001, 2013) and that these values shape different forms of sociality.

Ngaju sociality has historically been connected to a range of different livelihood practices and dwelling along the rivers – subsistence-based shifting cultivation, forest product collection, fishing and hunting, as well as dual residence pattern of riverine longhouses on the big rivers (kali or sungai) and temporary single-family houses located along the small rivers (sei). Large parts of the swamp forests along the Kahayan River inhabited by the Ngaju have been dried up due to the canals and smaller waterways; while they used to be ‘underwater’, inundated during the rainy season, after becoming agricultural or garden landscape they have been planted with rubber and, lately, hardwood timber.
Dried peatland has become vulnerable to fires (Putra, Takashiand, and Usup 2008; Galudra et al. 2010), and the canals and rivers have become targets of climate change and ‘peat restoration’ (BRG – National Peat Restoration) projects (Lounela 2019b), aimed at blocking water in the rivers with wooden dams to control water flow and make the peat landscape wet again. The transformations of the peatland and waterscape are accompanied by the relatively new corporate form of sociality of the handel group, which focuses on canal management, and the cultivation of rubber and fast-growing tree species, promoting economic value and individual gain. This article explores Ngaju sociality and local people’s valuation of forms of sociality, and their values more generally. As a real-world, socio-material process embedded in physical space and the material environment, sociality is always in a state of becoming through human activities and livelihoods in their material environments. I argue that these are foundational for both Ngaju sociality and values (see also Lounela 2020).3

Denoting the open-ended social process of interaction between individuals and within and between groups, the sociality concept is helpful for thinking about the plurality of human relationships beyond bounded human groups and societies. Marilyn Strathern (1989; see also 1996) argued that the concept of society is problematic because it presupposes humans as individual agents who form bounded groups; it isolates certain agents from other agents, pitting individuals and society against each other. Against this background, she suggested that sociality is useful ‘to refer to the creating and maintaining of relationships’ (1989, 13; see Ingold 1996, 47). As Tim Ingold noted in his introduction to the 1989 Manchester University Key Debate in Anthropology, the concept of ‘sociality enables us to express the way in which particular persons come into being through relationships and forge them anew, without relegating both personhood and relationship to a domain of reified abstraction – epitomized by the concept of society’ (1996, 47). Nicolas Long argues that sociality is ‘the state of existence’ in such a ‘dynamic relational matrix’, but adds that what makes human sociality distinctive is what Henrietta Moore calls the ethical imagination (2015, 856; Moore 2011). Sociality is a matrix of relations in which humans and non-humans alike take part in the process of becoming, but the difference is that humans have the capacity to imagine and plan their actions and future. Thus, values and cultural imaginaries are constitutive of human sociality, so that its distinctiveness and virtuality reflect the unique ideational dimension of human existence (Long and Moore 2013, 11). However, as I will show, environmental disasters such as fires, which destroy plants and damage the fragile peat landscape, affect the valuations of plants and rivers, and people’s capacity to plan and imagine their futures. Such disasters cause shifts in the related socialities such as when authority positions – in this case in the river groups – become too demanding and burdensome for various reasons.

This article integrates this ‘idealistic’ or ideational understanding of sociality with a perspective that highlights sociality’s material embedment and co-production. Thereby, it offers a unique take on sociality, reconciling the supposedly opposed perspectives of the materialist and ideationalist views of the concept.

**Sociality, Values, and Materialities of the Riverscape**

It follows that human social life is not cut out on a separate plane from the rest of the nature but is part and parcel of what is going on throughout the organic world. It is the process
wherein living beings of all kinds, in what they do, constitute each other’s conditions of existence, both for their own and for subsequent generations. (Ingold 2011, 8)

In Ingold’s view, Marx’s and Engels’s definitions of *production* mistakenly took humans out of the environment, exemplifying a flawed view that has had profound effects on Western thought. Ingold suggests that production should be understood as being about ‘participating in the world’s transformation of itself, since human beings produce themselves and one another by establishing through their actions the conditions for the ongoing growth and development [read: history]’ (2011, 8). Production is not about ‘making’ from the outside, and it does not need to have a specific aim, although people often imagine aims for their actions. In terms of sociality and human-environment relations, this is an important contribution, indicating that humans and non-humans alike co-produce what I here call the ‘social landscape’, along with themselves and their existence in the world. Ingold describes this process as ‘becoming’. However, it is vital to integrate into this approach the transformative agency of humans (see Lounela, Berglund, and Kallinen 2019), which brings to the analysis human imagination, plans, power relations, and interventions that transform landscapes into entirely different conditions for human sociality. This also implies a politics of value, that is, who can decide what is valued, and decide ‘what it is that makes life worth living’ (Graeber 2001, 88).

An anthropological debate on sociality in human-nature relations emerged with force in the 1990s. At the time, Western conceptions of human-nature dualism came under scrutiny (Bird-David 1990; Descola and Pálsson 1996; Ingold 2000). While, for example, Descola and Pálsson criticised Western anthropological theorisation for assuming a nature-society opposition in places where such opposition did not exist, Bird-David described how human-nature relations reflect social relations, such as in band societies that perceive nature as a giving environment – like a parent (1990). Anthropologist Sandra Bamford showed how forms of New Guinea sociality are fluid, flexible, and constantly changing, but also deeply embedded within the landscape (1998, 29). She argued that we should look at human-environment relations from the specific nexus of social relations and how they are embedded within the landscape, which involve different materialities, including non-humans. Human social relations are not static but evolve in tandem with environmental activities and production, so that the landscape is gendered, kin-related, human, and non-human at the same time (Bamford 1998, 44–47; see also Howell 2011; Ingold 2000, 2012; Tsing 2005, 2014, 2015).

Furthermore, as Signe Howell observes, it is ‘the interface between nature and culture that is at stake, the handling of which becomes instrumental in the perception of sociality and the moral prerequisites for social life’ (2011, 42). In Howell’s understanding, the nature of human-nature constellations is central to the forms that sociality and values take. Even though the Chewong of Peninsular Malaysia, whom Howell studied, differ from the Ngaju in many respects, especially through their less hierarchical social order, there are important similarities, such as the importance of individual autonomy and its co-existence with an ethos of communal solidarity based on a sharing economy. These values – autonomy and solidarity – are intimately related to lifeways based on mobility and subsistence practices, which have included fishing in the rivers, shifting rice cultivation, forest product collection and hunting, and the cultivation of various fruits and vegetables.
I propose understanding value as a reflection of the investment of energy through action in what is considered meaningful and important, as in David Graeber’s sense (Graeber 2001). The consideration of values in this context needs to attend to their socio-materially embedded nature. While values are essentially ideas about what is good, desirable, and legitimate in society, they are sustained through concrete practices that decisively influence what is considered important. Going beyond Clyde Kluckhohn’s (1951, 395) understanding of cultural values as ‘conceptions of the desirable’, the view proposed here suggests that values derive from how ‘people represent the importance of their action to themselves’, and that producing things is also about producing values and social relations, and producing the producer as a specific person (Graeber 2001, 45, 58). For instance, the flows and changes in the waterscape shape sociality and values, but at the same time social forms and values bear on human-river social entanglements. When people drain peatland for agricultural purposes, practise – or stop practising – rice cultivation, prioritise rubber cultivation, shift to hardwood as a source of cash, or care for fruit trees, they produce a specific landscape formed of materialities that represent the values that these activities sustain.

I adopt this view in my ethnographic case study on the interconnected Ngaju sociality, values, and riverscape in Buntoi, Central Kalimantan. This landscape contains rivers and canals that are respectively associated with two specific forms of sociality: that of kinship-based and river-related groups (se), and that of more recently emerging corporate ‘canal’ (handel) groups that I will explore below.

The Riverscape of Flexible Sociality: Se and sei

The village of Buntoi comprises about 16,000 hectares of land located along the Kahayan River, one of the largest rivers in Central Kalimantan. If small rivers and canals are counted, there are 35 waterways, of which 20 are considered canals (handel) and the rest as rivers (saka or sei), and wet rice cultivation irrigation systems (rei) for the Javanese transmigrants within the village territory (Oktayanty 2015, 48). The village elders told me that the settlement, located on the west side of the Kahayan, originated in the seventeenth century. The Ngaju villagers used to cultivate tidal rice – and, later, rubber – on the east side of the river. In the 1960s, Javanese migrants settled there, taking over part of the land, and irrigation canals (rei) were created for the cultivation. In the west-side Ngaju settlement, one crosses many rivers that stretch from the large Kahayan River in the direction of the peat swamp forest in the further west. Villagers have built bridges over these. Oftentimes, parked near the mouth of the small rivers are small wooden boats (klotok or alkon), which are used to travel to the gardens located along the waterways.

Sometimes small rivers are called sei, emphasising the length of the river, or saka, which means a mouth of a river, or a very small river. Usually, the people who work in a river area are descendants or relatives of a person who ‘worked’ (berusaha) there by slash and burn rice cultivation, cultivating crops such as cassava, rubber, or rattan, collecting forest products, or hunting and fishing. Descendants were typically given rights to the land following birth order, so that the oldest child received the first plot and so forth, consistent with the Austronesian notion of precedence (Fox 2009, 91–92). Those living or having user rights along the river compose kin groups that are
called se or sehe. Some people translated se ‘clan’ (Indonesian: marga). Importantly, se is understood as a category of descent (keturunan).

Kinship among the Ngaju is always in the making. A 78-year-old man named Pak Beni narrated to me that long ago three friends called Saman, Langit, and Kiham travelled upriver to Buntoi. They married three sisters, the children of Dayang. Through the marriage, the three friends got one common parent-in-law and they became related as kin. They all settled along the river and started to work there, and later their kin groups shared land along the river. Pak Beni noted, ‘This is a story about descent (keturunan), there are many, and there was always somebody living by the river.’ The Ngaju stress kin-based relations, which integrate friends and outsiders in their kin-based sociality through marriage and land rights. There are two important mechanisms here: friendship is transformed into kinship relations as a fundamental way to create a specific social order and integrate external actors to the group. Since the Ngaju trace descent bilaterally from both the father’s and the mother’s side the composition of kin groups is flexible, but also ‘messy’ so that sometimes it is not entirely clear which group one should join. People used to marry their first or second cousins, but today this is rather rare. Se is flexible and in flux, which is typical of kin groups in Borneo (Chua 2007; Gibson and Sillander 2011; Oesterheld 2016).

This form of human sociality is deeply embedded within the riverscape. The se is the basis on which the Ngaju connect to the swampland. The local Ngaju used to be highly mobile. Groups gather and dissolve in different places and times; people travel and periodically stay elsewhere, but they mark their existence in the landscape through their environmental practices. Different family groups may hold rights to land on different sides of the river. Families on different sides of the rivers are not always close relatives, but as in Pak Beni’s story, they sometimes are made kin through marriage. When the children grow up, they are given land along the river. When they later marry, the husband should give a piece of land (petak pelaku) to the bride. Through this act the existence and location of the couple become inscribed in the landscape and the relational matrix of the se, even if they stay elsewhere.

Brosius (1997, 59) has described how Penan river names in Sarawak ‘incorporate geographical, ecological, historical and genealogical information’, resembling the Ngaju riverscape in Buntoi. The name of the river may refer to the founder of the river, some influential person or his or her position, some species of plants growing there, or the quality of the water or soil. People can use different river names in different situations, expressing flexibility and the varying contexts of the sociality in the making. Thus, sei indexes a place in which kin sociality is actively created through the search for one’s livelihood and dwelling.

**Rivers and Sociality in the Making: A Historical View**

One day, Pak Beni and his daughter Mia, a school teacher, received me in their home at noon. Narrating how the settlement along the Kahayan River became established, Pak Beni explained that the Ngaju had been spread throughout the peat swamp forests, along the small rivers, or at the river ends. The Dutch found it difficult to control and order the dispersed Ngaju families, not to mention that Ngaju headhunting practices were considered a threat to the Dutch and traders. Thus, the local leaders – who were
given titles such as temanggung, singa, and mantir, under Dutch rule – asked the Ngaju to gather along the large Kahayan River and build permanent settlements.

The Dutch reported that Buntoi had 2600 inhabitants in 1855, living along a three-kilometre stretch of the Kahayan. This surprisingly high number of people probably reflects the Dutch effort to gather people in one location and unite Pangkoh and Buntoi settlements (Anom 1858; Maks 1857). Probably in the nineteenth century, longhouses were built in the location. One large longhouse (betang), is still left in the village. While some people, like Pak Beni, had the view that the betang used to be an elite house, other people thought that longhouses were primarily places where families gathered to protect themselves from headhunting groups and animals. The value of relationality became manifest in various practices – ‘working together’ and ‘sharing’ – between those inhabiting the house. Pak Wilson, the elder, called this sharing and related equality and solidarity a ‘longhouse characteristic’ (sifat rumah betang) (see Lounela 2019a).

In a paper on rattan trade (1996), environmental historian Han Knapen discusses how between the seventeenth and nineteenth centuries the Dutch extended their access to the South Borneo through trade. However, the Dutch found it difficult to travel further inland and get local inhabitants to collect forest products like rattan, as they were supposedly not interested in anything more than meeting their subsistence needs. Knapen (1996, 4) mentions that the Dutch reported that the limited supply of rattan in the area at the time, in addition to low prices and the ‘laziness’ of the locals, along with headhunting, warfare, piracy, and diseases, led local rulers and the Dayaks to avoid contact with outsiders for long periods. Withdrawing to the hinterland for years, the Dayaks even closed some rivers so that outsiders could not travel up them. Environmental conditions also made access difficult since climate and rainfall variations affected the water levels.

The Dutch abandoned Banjarmasin after this first attempt since the possibilities for pepper trade decreased and it was difficult to gain control of interior South Borneo (Knapen 1996, 6). However, they returned to the area in 1817 and started to patrol the forests and rivers to stop Dayak headhunting and piracy; heavy sanctions were imposed on these ‘crimes’. As rattan and other trade increased after the Dutch made it free, so did access to the forest and rivers. In the early nineteenth century, Bakumpai traders and some wealthy local leaders took debt-slaves, or people who had not been able to collect enough rattan, in return for barter. These debt-slaves dug canals, which served to mark property rights but also enhanced their access to land (Knapen 1996, 12–14). However, due to increasing and free rattan collection and the flexible systems of access, land conflicts emerged. Dutch rule intensified at the end of the nineteenth century when the war with the Sultanate of Bandjarmasin ended. The Dutch started to promote property rights in the mid-nineteenth century. They gave personal letters of rattan forest ownership to those who had opened access to the forest by making roads or digging waterways. Soon after, the ‘domain declaration’ (domeinverklaring) became officially inaugurated in Southeast Borneo (Knapen 1996, 16), making the Dutch colony a legal holder of rights to all ‘empty’ land without ownership certification; it then became state property. The Dayak increasingly settled and obtained more permanent rights to land (Knapen 1996, 20; Mallinckrodt 1922). In the early twentieth century, both Banjar and Dayak kin groups held so-called tatah and sungai rights to
waterways. The kin groups’ leaders who managed these rights could also collect tax for forest products or fish (Vergouwen 1921).

This excursion into the history of environmental politics explains how and why Ngaju families ‘opened the rivers’, initiating a process that led to important changes in their livelihoods and sociality. Opening a river and planting in the area secured land tenure rights and privileged access to them. Nevertheless, this does not mean that river land became strictly private property. Still today, some families have collective family land rights, or warisan (heritage); family members have rights to specific tracts of land, but they may manage this land and share parts of the harvest with a person who ‘has the land’, while private ownership is not distributed among the siblings.

Ngaju environmental practices associated with sei and se embed flexible relational matrixes in the fluid waterscape. Work along the river produces the environment, along with the values of autonomy (mobility, working alone, staying in the forests) and the values of solidarity and relationality (sharing, working on each other’s land, shared residence). Simultaneously, the concurrent residence in longhouses also supported the Ngaju sociality and values of relationality and solidarity (Lounela 2019a). However, as I will show next, environmental transformation may inform and set limits to values and also forms of sociality.

**Canal Groups: The Corporate Sociality of the Handel**

I will now discuss how transforming the peat swamp forest by draining it through canals created a specific landscape entangled with new forms of sociality, representing the importance of some Ngaju environmental practices. Exploring the histories of East Anglian fenland drainage, Richard Irvine points out that draining of the fenland is a work of imagination (2017, 31). At the time, drainage in Europe was the venture of capitalism to produce economically valued landscape. However, unexpectedly, drainage of fens for cultivation produced waste land as a side effect (Irvine 2017, 31, 41). Similarly, among the Ngaju, the making of the economically valued landscape related to imagining production modes that would bring economic benefits, which demanded draining of the swamp forest of excessive water and the forming of new corporate groups that could transform the peatland into an economically productive landscape.

Projects, technical improvement, and commodification are often interventions to ‘improve’ life; they also simultaneously are efforts to take control over landscapes, but often with unexpected effects (Li 2007; Lounela 2019b). Drainage and commodification are works of imagination (Irvine 2017), but this transformative human agency has concrete effects and material consequences. Importantly, while value is a central element of this extended human agency, it is largely beyond the scope of any individual’s intentions and control.

Here, the scales matter. In the fifties, the Dutch engineer H.J. Schophyus planned an irrigation system that was partly realised near Buntoi village: the Mentaren canal (polder) was dug at the opposite side of the Kahayan River to afford land for rice cultivation for migrants from Java, which had the effect of destabilising the local rice cultivation system (Tempo 1979). During Suharto’s New Order regime of grand economic development, schemes were translated into policies that opened possibilities to timber companies to start logging operations in the area, in between 1970 and 1998. In Buntoi, local groups
of three to five men took part in the logging operations, working along the rivers and digging waterways so that loggers could penetrate deep into the peat swamp forest. These groups were not necessarily formed along the lines of family relations but new people entered the village from elsewhere, sometimes returning after a time away, to join the logging operations. The term *parit* was used to indicate a river or stream that had been considerably lengthened (manually, using a chain saw) for log transportation.

Furthermore, in the mid-1990s, the large-scale Mega Rice project initiated by President Suharto extended to the vicinity of the village of Buntoi. This project, aimed at creating rice fields large enough to make Indonesia self-sufficient, drained more than one million hectares of swamp forest in Central Kalimantan (McCarthy 2013). At least one very large canal was opened in Buntoi with an excavator, crossing the peat swamp forest from the Kahayan to the Sebangau River and Natural Park. The effects were enormous, also because the villagers and other actors took part in deforesting and draining part of the riverscape (Lounela 2019b). Wiping out any traces of human history by cutting down the remaining trees and emptying the landscape (Tsing 2005) opened the riverscape to new technological interventions and assemblages (Tsing 2015), but also new values and forms of sociality.

In 2005–2008, some rivers in Buntoi were widened, lengthened, and extended five to six kilometres into the deforested peat landscape with support from the regional government. The rivers transformed during this period became called *handel*. Some villagers had the view that the term *handel* came from the Banjar language and the concept had been in use for decades. On the other hand, the Dutch referred to the distribution of land along the canals in Borneo as *aandeel*, and thus it is possible that the word *handel* points to both trade and distribution.

An elderly man recalled how the new governor of Central Kalimantan came to the village to suggest that the villagers make a proposal to the district to get funding and assistance to transform the rivers with excavators. The villagers agreed, reasoning that they would get access to more land and be able to plant more rubber trees. This was not anything new, since the Ngaju had started to engage in the commodity economy through environmental practices when they began to cultivate cassava (*ubi kayu*) and rubber trees along the banks of the rivers in the 1940s–1950s (see Lounela 2019b). Lengthening the rivers provided a means to dry the surrounding land and create a way for transportation.

In 2005, the villagers formed *handel* groups, who started to organise meetings to establish group rules and discuss what to plant and how to manage the waterways (which have sometimes been co-organised by state officials, NGOs, or climate change mitigation projects). The group activities included agricultural or forestry proposals at the district and provincial levels to manage the canals and obtain funding and seedlings. The local district government allocated rubber seedlings to some of the groups if they fulfilled the bureaucratic criteria, and the families planted rubber trees (*Brasiliensis hevea*) on land that they now considered theirs. The *handel* heads became authorities who should control the activities on the rivers. However, some villagers told me that the groups gather only when there are projects, and short-term benefits comprise their primary aim, while earlier the villagers had collective activities. The river group members consider the *handel* heads as legitimate leaders, but they could not control individual actions and activities. This raised questions on what control means and how it relates to new form...
of sociality and related values. A discussion of the Asem River group serves as an example:

Q: Do you need to regulate [mengatur] water in the river?

Pak D (the uncle of Anton in the opening vignette): No, not at all. The water depends on tides [pasang surut], you cannot order it (diatur).

Anton: We only use the tide [pasang surut], we don’t use dams. We just used to clean [the river] through collective work [gotong royong]. However, we do not have this collective work anymore, because there are so many projects, [while] earlier it was all collective work.

Bu Nini (Pak D’s wife): Because of so many projects here. The collective work disappears, so the value of the collective work has to have a monetary value.

Pak D: We are modern people [masyarakat moderen].

Ibu Nini: It is not like before. Now you have to pay for cleaning the river.

The making of the canal (handel) sociality serves to realise these modern projects. The modern projects demand a form of sociality to control the people involved, as well as the environment. However, the Ngaju have always valued flexibility and autonomy highly, and they dislike being controlled; this mirrors the view that it was impossible to control the rivers. The tension became visible when the Indonesian Peat Restoration Agency supported building dams in the handels in the village in 2017–2019, and the dams often ‘became’ broken due to various human-related reasons. Tensions over control also became manifest in how leadership of the groups was sometimes avoided in post-fire Buntoi in 2019.

In the autumn of 2019, after another set of large-scale fires burned most of the sengon trees planted after the 2015 fires and some rubber gardens about three kilometres upriver. When I wanted to meet handel heads I sometimes found it difficult to find them. Holding authority positions, being a leader, had become too burdensome and risky, since leaders were responsible to the state authorities. When the fires took place, they had to provide answers to the state officials and the police as to who had started the fires, whether anyone try to stop them, and so on. Fires also made the group members angry or desperate; they demanded protection and action from the leaders while being less inclined to trust or obey them. Thus, the leadership of the corporate form of sociality in post-disaster Buntoi became negatively valued, unlike the highly valued authority of river founders and family heads, around which there is nonetheless ambivalence, since the Ngaju generally dislike being ordered about (Scheer 2016, 181).7

Co-operation along the rivers came to be based not on kin assistance but on economic compensation. At the same time, environmental activities were increasingly valued in monetary terms, leading to a shift in the valuation of sociality and kin relations. Yet, I argue that this was not an entirely chronological development. The ‘traditional’ values of relationality and solidarity were generated through the handel group practices, such as sharing, collective work, and including new people. Nevertheless, paradoxically, the practices also led to emerging new values – principally economic value and individualism – entailing the co-evality of values (Gregory 1997).

This co-evality of values manifested itself in the land tenure system and the changes to it. Many handel heads distributed or sold land to non-kin who asked for it or took part in
the canal-building work; others gave up land for canal-building, or gave it to the church and mosque, or to ‘outsiders’, like the Banjarese rubber tappers who had worked for the Ngaju. While arrangements varied, there was a tendency for handel groups to integrate distant relatives and non-relatives, while the old rubber gardens at the river mouths remained as before in the hands of family members. Each family or person sharing 1–2 hectares along the rivers opened the landscape to new relationships and capitalist expansion through the privatisation of land and cultivation of rubber trees.

It is a tragic paradox that the handel group’s work of transforming the rivers has contributed to the devastating fires that have produced a disturbed landscape, making it harder than ever to imagine what the imagined ‘good life’ within the peat landscape could be. In 2015, fires burned about 40 percent of the forest and gardens in the village territory (BRG 2018, 2). As Ingold argues, ‘To imagine the landscape, then, is to enter into correspondence with it’ (2012, 14). People imagine and thus participate in the becoming of the landscape. In the case of Buntoi, however, the disturbed landscape puts limits on imagining the future landscape and on oneself as a participant in its becoming, especially once the projected effects of past plans appear to have failed the current landscape.

The handel group manifests the corporate form of sociality, which has prompted a desire for individual gain and the instrumentalisation of social relations, contesting the values of solidarity and relationality. But it is important to note that handel groups at the same time promote collective forms of sociality, such as through the sharing of land and the reproduction of family and other social relations through collective practices. Thus, the Ngaju form of sociality shifts from kin to the corporate type of sociality and back, showing their limits, resembling how the rivers themselves shift from sei to handel and back in different situations and periods. This indicates the importance of looking at the nature of values in the process of the material and environmental constitution of sociality.

Conclusion

This article has shown that ‘materiality and sociality produce themselves together’ (Law and Mol 1995, 274). The swamp is fluid, since it contains large amounts of water, but also because it is constantly changing, resisting stable (infra)structures; like Ngaju sociality, it is constantly in flux. The Ngaju people have transformed the rivers and nature within the peat landscape through their engagement with state projects as well as independently. Through the composition and characteristics of the waterscape, human activities shape sociality.

The peat landscape of transformed waterways and the plants grown there represents the importance of human action to the actors and thereby gives rise to values that reflect the work invested in them. These values shape different forms of sociality, which are constantly (re)produced through environmental practices. For example, drainage of peat soil and making land a commodity through agricultural or agroforestry activities show the emerging importance of economic value, which in turn shapes the corporate form of sociality of the handel. However, the continuing – even though decreasingly important – environmental practices of shifting rice cultivation, hunting, fishing, and collecting forest products continue to produce the ‘traditional’ form of sociality. Thus, while sei
and *handel* might seem to be two very different existences in the relational matrix of the specific riverscape, it seems to me that commodification and the ‘modern’ form of sociality are informed by the previously dominant river-based kin-sociality, related subsistence practices, and values of solidarity and relationality. This analysis evokes the argument presented by Mark Mosko that the Mekeo in Melanesia are not ‘possessive individuals’, even though they engage in a commodity economy, but rather ‘non-possessive individuals’ (2013, 192).

Values variably operate in tension and conjunction in the overlapping socialities of the flexible *se* kin groups and the corporate *handel* groups. Among the Ngaju, the transactions involving land range from sharing to money-mediated reciprocal exchange; environmental livelihood practices range from forest product collection and rice cultivation to commodity production, which perpetuate the values of solidarity and sharing along with economic value and ‘short-term individualism’, producing messy and contested forms of sociality. Importantly, transformation of the riverscape and related material consequences along with new livelihood practices also set limits on environmental practices, forms of sociality, and how they are valued. The politics of value or who decides and establishes what is valuable (including social relations and entities) informs organising sociability and related tensions within the disturbed peat landscape.

Recurrent fires and capitalistic schemes aimed at fixing the peat landscape have brought their own limits on how imagining the good life and values may have effects on forms of sociability. It is increasingly clear that the disturbed Buntoi landscape, along with associated commodifying state projects and policies, increasingly limit the collective sociability that draws on river-based activities. Tim Ingold discusses how imagination and planning always have unexpected and unforeseen consequences (2011). Namely, plans and designs can rarely be realised as such; canals may dry the swamp forests, but this also brings drought and fires, or floods, alongside new forms of sociability and values. Humans, materialities, and non-humans co-produce the environment and themselves in complex ways, constraining which imaginaries may shape worldly conditions. In crucial ways, the unforeseen consequences of peat landscape transformation express the limited capacity of humans to know and plan the effects of human labour on the environment.

**Notes**

1. I warmly thank the co-editors of this issue Kenneth Sillander and Isabell Herrmans, for their valuable comments on this article. I greatly benefitted from our collaborative project ‘Contested values in Indonesia’ (2014–2018), and the project ‘Water and vulnerability in Fragile Societies’ (2018-2021), both funded by the Academy of Finland. Drafts of this paper were presented in 2018 at the ASA conference at the University of Oxford and a workshop at the University of Helsinki in 2018. I thank Harry Walker for helpful comments on those occasions. Naturally, the article is the sole responsibility of the author.

2. All the names used in the article are pseudonyms.

3. The article is based on ethnographic research from five field trips between 2014 and 2019. The multitemporality of my fieldwork has proven a fruitful. For example, in my recent return to the field in January–March 2019, I noticed that the canals were in the process of being transformed back into rivers and wetland through the (inter)national peatland restoration efforts. However, in October 2019, large-scale fires destroyed many of the dams,
along with villagers’ gardens and sengon (Albizia falcataria) plantations, which had been planted after the 2015 fires.

4. Kluckhohn states, ‘A value is a conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the desirable which influences the selection from available modes, means, and ends of action’ (1951, 395). My approach differs especially since it takes values as being produced through action, which involves both material and ideational aspects.

5. Even though ideally the elder boy would be the first to inherit land and the position of father, this is not necessarily so. For example, one handel head told me that his father, the youngest of five children, got most of the land, and the siblings complained about that. It seems to be that each family has their own system, and none should comment on how things should be organised on other rivers or families.

6. Based on verbal communication with Han Knapen. I am grateful for his comments on the history part of this article.

7. Scheer (2016) remarks on the dislike of hierarchical relations and authoritarian ordering among the Ngaju Dayaks in Katingan, noting that independency and flexibility are the key values among the Ngaju Dayak she studied.

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