River Transportation Network and the Development of Civilization on the East Coast of Kalimantan at the End of Colonial Era

Muslimin A.R. Effendy

Department of History, Faculty of Cultural Sciences, Hasanuddin University-BPCB Kalimantan

Corresponding author. Email: muslimin.dmbojo@unhas.ac.id

ABSTRACT

The east coast of Kalimantan tends to be overshadowed by a grand narrative constructed by ethnic groups living around the Makassar Strait with a perspective that tends to negate the capabilities and portray stereotypes of local communities in response to progress and modernity of civilization. Such impression that appears in a number of colonial sources about the eastern part of Kalimantan is strengthened when the picture that adorns its historical record shows the important role of a number of outside actors in helping local rulers (Kutai, Paser and Berau) to protect their sovereignty from threats and disturbances of other groups that fills the vast space of its historiography. Conversely, the struggle of local communities in fighting for rights and the essence of life is obscurely presented as a mere attachment to the various existing dominant elements. The east coast of Kalimantan with its wide and long river channel and relatively constant coastline as well as bustling economic activity make settlements grow and develop rapidly along the Mahakam River Basin, its tributaries and branches. This dynamic made the local authorities and the Dutch colonial government finally issue a policy of "territorial determination" and control of the boundaries of the occupation space. When the shipping company KPM (Koninklijke Paketvaart Maatschappij) operated in the Dutch East Indies in the late 19th to mid-20th centuries the local population faced significant political changes. Local rulers and the colonial government initially tried to impose monopoly on the river and were actively involved in transportation of goods, trade and investment although in the end the local rulers worked side by side with the colonial rulers and other traders. This paper discusses three important issues, namely the establishment of a river transportation network, the persistence of coastal-inland communities to get involved in the transportation service business, and the colonial penetration in water transportation governance that leads to increased business-power competition.

Keywords: Transportation, rivers and civilization.

1. ESTABLISHMENT OF A RIVER TRANSPORTATION NETWORK AND SETTLEMENTS

Transportation that crosses 920 km of the Mahakam River is the second longest waterways in Indonesia after the Kapuas River in West Kalimantan (1,143 km) and the dominant form of the earth which is vital for mobility and socio-cultural interaction when road access is not adequately available yet. This water transportation then becomes the connecting traffic between regions in the interior and downstream areas along major rivers such as the Mahakam River, Kayan River, and Berau River as well as its tributaries and branches.

On the east coast of Kalimantan the formation of a river transportation network began as early as 400 A.D., or perhaps even long before that, when Martapura (which modern Indonesian chroniclers refer to as the Kutai Martapura Kingdom) was actively involved in trade traffic in these islands. It is marked by the arrival of travelers from the land above the wind such as India and China who are attracted to local produce and commodities, each of which leaves evidence of its presence. The peak of Martapura's glory occurred during the reign of King Mulawarman in the second decade of 500 A.D. when the name "Kutai" began to appear in Hindu geography and cosmographic literature as "Koti" or "Yawa-Koti" in Sanskrit and not "Ujung Jawa", which meant Kutai as the edge of the world navigated by the Hindus. In ancient Javanese sources...
(1365), Kutai is called "Tunjung Kute" (as a vassal state of Majapahit), which means Lotus Edge, and since the 14th century the name Kutai is widely used.

The distribution of archaeological remains seems to follow the mobility of the founders of the kingdom, mostly in the interior of the rivers where they are safer from unexpected attacks and are nearer to the valuable agricultural products. Thus, of all places in the Indian archipelago, Kalimantan is the first island in history to leave the oldest trace of literacy in the form of a Sanskrit inscription inscribed with Pallawa script on yupa which was found in the former Hindu colonizion in the hills of Muara Kaman, East Kalimantan. Remains of temple structures, stone mortars, ceramic fragments, gold statues of Vishnu, gold turtle statues, gold bracelets, and several Hindu statues found on Mount Kombeng. The exoticism and historical value of these remains prompted a fascinated colonial official S.W. Tromp Jr. to investigate historical objects presumably still buried in the soil layer. With the permission of the Sultan of Kutai Muhammad Sulaiman Adil Khalifatul Mukminin (reigned 1845-1899), he asked one hundred people to search and explore the site. However, he only found a few objects, including bricks from temple remains and pottery shards. Tromp recounts his experience in a travelogue he wrote aboard Ternate, a steamer that took him sailing around the east coast of Kalimantan from 11 August to 15 September 1885. Tromp's image and glorified impression of the worship space as a marker of the ongoing rituals of sacred figures in pre-Islamic traditions, and ancient burials in the Mahakam River Basin and its tributaries such as the Belayan River, Kedang Pahu, Kedang Head, Batu Bumbun, Bakung, Berinding, Telen, Jembayan, Karang Mumus, and others further emphasize the function and importance of the river as a space for social and cultural interaction of the community.

At the same time the Kingdom of Kutai Kartanegara began to grow into a new power that threatened the existence of Martapura. The kingdom, which was based in Kutai Lama (Old Kutai) set out institutional restructuring and spatial arrangement by opening a new residential area located further downstream of the Mahakam River in Jembayan. The reasons for the displacement were allegedly due to the increasing escalation of security disturbances and the inability of the royal authorities to manage and overcome foreign influences that had begun to permeate and disturb value order and social structure of the local community.

The move was also accompanied by a circular migration of royal supporters and the Jaita Layar site, which was believed to be the starting point for the formation of the narrative of Kutai Kartanegara's political power in Kutai Lama, slowly being abandoned. The other reason noted in the travel records of another colonial official named S.C. Knappert in the early 20th century. He said that the move was prompted by the heavy loss and great suffering of Kutai Lama caused by acts of piracy and crime. The center of the capital moved from Pemarangan Jembayan to an area with a flat, broad and strategic landscape on the mouth of the Mahakam River as the front porch of the palace in Tenggarong.

The penetration of trade in the river led to transactions on boats and thus creating a floating market that provided access to the formation of new settlements along the river coast, both upstream and downstream. Bennet Bronson (1977) in his study of settlement patterns and river-based trading activities in South Sumatra said that the center of settlement and trading activities should be found near the mouth of the river in the Malacca Strait or the Bangka Strait. In the upstream area, at the estuary where the main river met by its tributaries, various centers of civilization will be found at different levels. According to their position on the communication network in the most upstream area, on the last stretch of river accessible by water transportation, groups of gatherers will be found working to find rattan, resin, gold, deer antlers, and other traditional commodities distributed outside the island of Sumatra through large ports on the coast.

The east coast of Kalimantan serve as the entrepôt of larger ports such as Balikpapan, Muara Jawa, Samarinda, Bontang, and Sangkulirang. The ports were ruled by the Sultan of Kutai along with the nobles. British traders who had long worked in Samarinda such as King and Joseph Carter in 1853 described the monopolistic practices in the area as anarchy while the

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1 Constantinus Alting Mees, *De Kroniek van Kutai: Tekstuitgave met Tuliichting* (NV. Uitgeverij V/H C.A. Mees, Santpoort NH, 1935: 5).

2 S.W. Tromp Jr, “Een reis n aar de Bovenlanden van Koetai”, (TITLV, XXIV, 1887: 2).

3 S.C. Knappert. “Beschrijving van de Onderafdeling ...” (1903: 576).

4 Bennet Bronson, “Exchange In The Upstream And Downstream Ends: Notes Towards A Functional Model Of The Coastal State In Southeast Asia” in Karl Hutterer (editor) *Economic Exchange and Social Interaction in Southeast Asia: Perspectives From PreHistory and Ethnography Ann Arbor*. Paper on South and Southeast Asian Studies University of Michigan. No. 13 (1977: 39).
colonial government was unable to prevent it. 5 Other smaller ports that function as collecting centers located in the upstream areas such as Melak, Kota Bangun, Muara Kaman, Kutai Lama and Anggana. These ports distributed a number of local products from the interior to the feeder points such as Tenggarong and Berau. The collecting and feeder centers may have long been strategic sites for local and inter-island trade and are located very close to the important economic routes from which local products originated.6

Large ports such as Balikpapan are also places of assembly of goods supplied from feeder points. Although these centers are much larger than the small local ports, locally produced goods become commodities in the global trade network. On the other hand, these centers also import foreign goods, especially goods that cannot be produced at feeder points such as ceramics, textiles, weapons, ammunition, jewelry and others for local consumption and are passed on to smaller traders and sent to feeder points in the interior.

In Bronson’s idea, the development of the great port depended entirely on the demand for certain commodities by the great empires outside the archipelago, without which the center of settlement and civilization will not appear.7 The development of the classical culture of Sumatra determined by the factors outside the island.8 On the east coast of Kalimantan Bronson’s “dendritic model” can be used to describe the distribution of settlements and trade that gave rise to new centers of economic growth in the lower reaches of Melak, Kota Bangun, Muara Muntai, Muara Kaman, Tenggarong, Samarinda, Palaran, Sangasanga, Anggana, Semboja, Sangata, Teweh to the coast of Berau as a result of interactions with the upstream region and the outside world of the Kalimantan islands.

Bronson suggests that the process of exchange between upstream and downstream areas have their respective roles provided that the river can be navigated upstream. Each region has its own role and is not bound by a political force. Areas closer to the coast have the role of accommodating goods from upstream areas and connecting with traders from outside. Areas located in the main river branches have a role as a reservoir for goods from tributaries and relate to downstream areas. The area located in the tributary branch has a role as a reservoir for the producers of goods that are in the upstream of the tributary. The most upstream area of the river functions as producers of goods.

Based on this dendritic model, there is no relationship between one watershed and another, assuming that there is no connected land route. According to Miksic (1984) the mountainous landscape which limits the movement of people according to the dendritic model is not a barrier to the movement of people through land routes between settlements. Meanwhile, according to Nayati (2005) certain land mobility in highland areas is not accessible via water ways.9

Based on the arguments above, it appears that the river transportation network has formed an enclave for the development of trade and the growth of new settlements on the riverbanks, spreading to the interior areas that are mostly inhabited by the Dayak people. At the mouth of the Mahakam River to the coast of the Makassar Strait live the Kutai, Bugis, Bajau, Banjarese, Arabs and Chinese.10 The residential areas of the various ethnic groups above are finally known by their names based on their position in the upstream and downstream areas. The names of residential areas in the estuary initiated with the word “Muara” or “Estuary” such as Muara Kaman, Muara Jawa, Muara Badak, Muara Muntai, Muara Pantuan, Muara Wis, Muara Pahu, and Muara Klinjau. Meanwhile, the settlements in the hinterland where the river flow originates ended with the word "ulu” or “upstream”, such as Mahakam Ulu, Loa Duri Ulu, and Loa Janan Ulu.

On the edge of Batu Anggana on the shores of the Kutai River, the tributary of the Mahakam River bustling with trading activities, including with traders from China who came by junk boats carrying goods (such as ceramics and silk cloth) to transport pepper,

5 J.G.A. Gallois. “Korte aanteekeningen, gehouden gedurende de eene reis langs de Oostkust van Borneo, verrigt op last van het Nederlandsch Indisch Gouvernement in de jare 1850”, BKI, IV, (1856: 225).

6 Leong Sau Heng. “Collecting Centres, Feeders Points and Entrepots in the Malay Peninsula 1000 AD-1400 M”, J. Kathirithamby-Wells dan John Villiers, (Ed.), The Southeast Asian Port and Polity: Rise and Demise. (Singapore: National University of Singapore Press: 1990: 23-26).

7 Bennet Bronson, “Exchange In The Upstream …” (1977: 40).

8 John N. Miksic, “Penganalisaan Wilayah dan Pertumbuhan Kebudayaan Tinggi di Sumatera Selatan”. Berkala Arkeologi V (1), (1984: 10).

9 Widya Nayati. “Social Dynamics and Local Trading Pattern in the Bantaeng Region, South Sulawesi (Indonesia Circa 17th Century).” Thesis Doctor Programme. (Singapore: National University of Singapore, 2005).

10 Ita Syamtasiyah Ahyat, Kesultanan Kutai 1825-1910. Perubahan Politik dan Ekonomi Akihat Penetras Kekuasaan Belanda. (Tangerang Selatan: Serat Alam Media, 2013: 31, 66-67).
agarwood, diamonds, gold, rattan, resin, wax, sea cucumbers, sharks, and bird's nests. Indian traders came with their main products such as satin cloth, jewelry, objects for ritual purposes and shipped the produce from this "etham continent" with the same type as those brought by Chinese traders. The main port that functions as an import-export port is Balikpapan with the main commodities such as agarwood, rhino horn, rattan, bird's nest, resin, and others. Later on the Dutch East Indies government penetrated and binding local rulers through the 1825 agreement and compelling the Kutai Sultanate to be subordinate. Sultan Muhammad Salehuddin (reigned 1816-1845) and Dutch representative George Muller signed the agreement on August 8, 1825 at the Tenggarong Palace. This agreement stipulates, among other things, that the king is under the protection of the Dutch East Indies government, that all of the sultan's rights in tax collection were controlled by the Dutch, both ship traffic taxes, imports and exports, land rental and pawn shop taxes, head taxes for Chinese people, as well as gold mining and other mining taxes. Samarinda residents prohibited trading to the interior and upstream highlands without further agreements with the sultan.12

Although the road facilities were built along with the development of oil drilling, the function of the river is irreplaceable as the main means of transportation. The gate to enter the oil city at the Sangasanga estuary, for example, is connected to many piers to reach the city center at Pier 9/Pasar. River transportation continues to reach the Bogam River, a village at the far end of the upper Sangasanga River.13

Both sides of the Sangasanga River has become a concentration of settlements since the sultanate era and the Dutch period. In Sangasanga Seberang there are several villages such as Bantuas, Sakatiga, Pinang Satu, Benyiur, Tapian (one of the big villages in which many Dutch houses built). In addition to indigenous settlements, there are also Chinese settlement with their burial facilities and places of worship around Selendang Hill. During the Indonesian independence war the Chinese even contributed to finance the fighters. The Chinese then left Sangsanga since the beginning of the New Order, especially after the government's policy that required them to live in big cities. There are also Arabs and Indians who live in the Setra Nanasa area. Previously Indians lived in Samarinda. The first generation of Indians came from Malabar like Haidar Idrus, working for an oil company in Sangasanga. One of the Arabs who became a public figure in Sangasanga was Habib Abdul Muttafih. Both Chinese, Indians, Arabs, and natives who are active as traders generally live on Jembatan Sembilan or better known as Jalan Dagang (Trading Street). Jembatan Sembilan is the main pier for the mobility of residents of Sangasanga in and out.14

Urban facilities standardized by modern European cities in the early 20th century are applied here, with well-maintained streets and aqueducts surrounding it. Large and small piers, workers' settlements, workers' wards, clean water treatment, hospitals, markets, schools, houses of worship (mosques, pagodas, churches), tombs (Christian, Muslim, Chinese), post and telegram offices, prisons, workshops, sports venues (swimming pool, football, tennis) and entertainment venues were built,15 including the rumored most modern gambling venues in East Kalimantan. The cars of colonial government officials and officials from the BPM (Bataafsche Petroleum Maatschappij) oil company passed over the Sangasanga paved road. The “oil city” facility provided with small airfield on the riverside in Sarijaya. Elektra and Thomason power plants built in Anggana supply energy needs of both the oil industry and the citizens.

2. PERSISTENCE OF COASTAL-INLAND COMMUNITIES IN THE TRANSPORTATION SERVICE BUSINESS

The main facility that opens up the door for inter-regional communication on the east coast of Kalimantan is the Mahakam River, which connects upstream in remote areas to the coastal areas of the Makassar Strait. The Kutai ethnic group residents from the interior to the coast areas mingle with the Dayak Tunjung, Benua, Bahau, Modang Bayak, and other Dayak ethnic groups. The population became more diverse when other people came, such as Banjar, Javanese, Bugis, and others. Some areas were given by the Sultan of Kutai to immigrant groups, such as Tanjung Baka in Samarinda.

11 Ita Syamtasiyah Ahyat, Kesultanan Kutai 1825-1910. (2013: 15).
12 Ita Syamtasiyah Ahyat, Kesultanan Kutai 1825-1910. (2013: 59-60).
13 Ilham Dg. Makkelo, Muhammad Nur, Amrullah Amir, Yadi Mulyadi. Laporan Kajian Pengembangan Cagar Budaya Di Daerah Aliran Sungai Mahakam di Kabupaten Kutai Kartanegara dan Kota Samarinda. (Samarinda: BPCB Kalimantan Timur, 2020: 96).
14 Ilham Dg. Makkelo, Muhammad Nur, Amrullah Amir, Yadi Mulyadi. Laporan Kajian Pengembangan... (2020: 98).
15 S.C. Knappert. “Beschrijving van de Onderafdeeling…” (1903: 56).
Another important aspect that has accelerated the development of the east coast of Kalimantan, apart from the companies already mentioned, is the presence of OBM (Oost Borneo Maatschappij) company based in Loa Kulu Tenggarong. The company is equipped with various facilities such as a magazine building, a curved roof house, workers' barracks, coal shipping port and other facilities. During the reign of Sultan Aji Muhammad Sulaiman various business sectors such as fisheries, agriculture, services and coal business also developed in Muara Kembang, Muara Jawa, Palaran, Loa Kulu, Batu Wall, which later developed crude oil mining businesses in Sangasanga, Anggana and Samboja.  

3. IMPACT OF COLONIAL PENETRATION IN WATER TRANSPORTATION MANAGEMENT

During the Dutch East Indies colonial era, the river was increasingly utilized intensively. The river no longer used merely as a "highway" for political, military and loge construction sites but also used to support the traffic of people, goods and products to and from the area around the river. At the time, the river had been used in earnest for economic purposes. Subsequently, the river became a "highway" crowded with various shipping companies, owned either by the colonial government or by private shipping companies owned by Dutch East Indies entrepreneurs and foreign shipping companies.  

The increasing use of rivers as the main way of connecting various areas encourages parties to do businesses and invest in the transportation service. Residents along the river provide their own transportation, either by buying boats or ships in various shapes and sizes for various purposes. Howard Dick (1975) made a classification to distinguish between trading boats and transportation boats. Small boats measuring up to 100 m2 are used as trading boats, medium boats measuring between 100-200 m2 are used for transporting goods and large boats measuring between 200-500 m2 are also used for transporting goods. The size of the tonnage, however, not necessarily correlate with the type of boat used on the rivers of east coast of Kalimantan, because small boats have different functions from the dimensions of boats used elsewhere. Howard Dick's classification, although taking the spatial background of eastern Indonesia, does not fully describe the types of indigenous boats that went back and forth on the Mahakam River and its tributaries in the late colonial period. Boats or ships operated by local residents, for example, are smaller in size because they are used as a means of transporting goods and moving people as well as for trading purposes in floating markets, from upstream to downstream or on short travel routes. While the large tonnage vessels operating in the late colonial period were foreign vessels belonging to the Dutch East Indies Shipping Company (KPM, Koninklijke Paketvaart Maatschappij), British EIC (East India Company) and China. Ships operated by KPM and EIC have a bigger role. Apart from being used for the mobility of people, transportation of goods and military movements, it is also used for more coherent commercial and political interests.  

The use of rivers as transportation infrastructure to connect with outside world has been going on for a long time. Therefore, shipping companies' activities facilitated by colonial government were actually a continuation of a tradition that had long been developed and carried out by local residents. Apart from being used to transport people and goods, rivers are also directly used to carry (washed away) various other products on the surface of the water. This mode of transportation has its own advantages because it can carry large quantities of goods almost without any costs. Products that are widely carried with this mode are logs and rubber. The logs that were cut by the pachters (entrepreneurs given the right to clear the forest) were the first products to be brought in this way. Along the banks of the Mahakam River, especially in the Loa Janan area of Samarinda, we can still see the riverbanks filled with logs washed away by pachters. Therefore, it can be said that the use of rivers as a "highway" for transporting timber contributes to the acceleration of forest logging.  

At the beginning of the 20th century up to the end of the Dutch East Indies era the river still had an important role in the transportation of goods and people. The transportation business managed by local residents

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16 J.G.A. Gallois. “Korte aanteekeningen, gehouden …” (1856: 225).
17 Ilham Dg. Makkelo, Muhammad Nur, Amrullah Amir, Yadi Mulyadi. *Laporan Kajian Pengembangan...* 2020: 94).
18 Gusti Asnan. *Sungai dan Sejarah Sumatra.* (Jogjakarta: Ombak, 2019: 113).
19 Howard W. Dick. “Perahu Shipping in Eastern Indonesia Part I”, dalam *Bulletin of Indonesian Economic Studies*, Volume XI No. 2 July (1975: 71).
20 Gusti Asnan. *Sungai dan Sejarah ...*. (2019: 120).
21 Gusti Asnan. *Sungai dan Sejarah ...*. (2019: 120).
cannot compete with giant companies such as KPM and EIC, especially after the operation of the coal mining company Oost Borneo Maatschappij in 1886 and the emergence of NIIHM (Nederlandsch Indische Industrie en Handel Maatschappij) oil company in 1897 that had a modern fleet of steamships. The Mahakam river is increasingly congested with the presence of large barges and tankers carrying coal and crude oil from production centers in Tenggarong, Sangasanga, Anggana, Muara Badak, Muara Jawa, Semboja and Berau to be processed in Balikpapan.

4. CONCLUSION

River shipping in the war era not only used for the purposes of fighting but also for personal or group interests. Using various types of boats these groups take advantages from smuggling various trade commodities to be exchanged with much needed goods, such as weapons, ammunition, communication tools and so on. That is why the Dutch army intensified military patrols in the waters, especially in the enclaves of struggling area, at the mouth of the river. They even set up guard posts at the mouth of the river that empties into the Makassar Strait.

The decline of public transportation closely related to the situation when the Dutch East Indies government operated steamships, and ships owned by shipping companies contracted by the government such as the F. A. cores de Vries and later NISM (Nederlandsch Indische Stoomvaart Maatschappij). In early 20th century when the Dutch East Indies government expanded the reach of the KPM shipping fleet to almost all important areas and ports in Indonesia, the role of the sailboat changed to a feeder vessel. However, it is certain that the presence of steamships did not completely drown the traditional boat voyages, which indeed played an important role in trade, goods transport and population mobility.

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