Located on the northern coast of West Java, Jakarta is the center of government, commerce, and industry. Jakarta is also a city of contrasts; the traditional and the modern, the rich and the poor, the sacral and the worldly, often stand side by side in this bustling metropolis. Even its population, gathered from all those diverse ethnic and cultural groups, so we also called a melting pot. About 8 million people live in Jakarta representing nearly all the ethnic groups in the archipelago. They are Javanese, Betawinese, Sundanese, Chinese, the Batak, Minangkabau, the Malay, Buginese, Madurese, the Banten, and Banjarese.

Jakarta Bay is located north of the Jakarta city. It is a shallow bay, with an average depth of about 15 m, an area of 514 km², and a shoreline about 72 km long. On its eastern and western sides, the bay is bound by two capes, Tanjung Karawang and Tanjung Pasir, respectively. There are some traditional ports in the Jakarta bay that existed some fisher kampongs, include: Dadap, Kamal Muara, Muara Angke, Sunda Kelapa, Kalibaru, Cilincing, and Marunda. Buginese, Javanese and Betawinese lived in these areas and developed their traditional fishing technology.

This paper analyzes the economic contribution of the Buginese, Javanese and Betawinese in Jakarta bay, even though the bay receives highly polluted water from the nineteen rivers that run through the Jakarta Metropolitan Area.

**Keywords:** Buginese, Betawinese, Javanese, economic, coastal area

1. **Background**

Located on the northern coast of West Java, Jakarta is the center of government, commerce, and industry. Jakarta is also a city of contrasts; the traditional and the modern, the rich and the poor, the sacral and the worldly, often stand side by side in this bustling metropolis. Even its population, gathered from all those diverse ethnic and cultural groups, so we also called a melting pot. About 8 million people live in Jakarta representing nearly all the ethnic groups in the archipelago.

The rapid development and urbanization of Jakarta has made the Betawinese, the indigenous people of Jakarta, to live more and more to the outside of Jakarta. The immigrants who live in Jakarta today are more than the indigenous Betawinese. Some ethnic group who live in Jakarta are Javanese (35.16%), Betawinese (27.65%), Sundanese (15.27%), others (6.48%), Chinese (5.53%), the Batak (3.61%), the Minangkabau (3.18%), the Malay (1.62%), Buginese (0.59%), Madurese (0.57%), the Banten (0.25%), and Banjarese (0.10%).

Actually, the population of the indigenous Betawinese increased five times in 1930 and 2000, from 980.863 to 5.041.688 people or grew 2.34% in average. About
54.35% of them mostly live in Banten and West Java province and only 45.65% live in Jakarta.

2. Traditional Ports in Jakarta Bay

More than 35% of Indonesian fishermen are concentrated on fishing ground at Java Sea but only about 15% of the catchments area of Indonesian water. This overfishing indicated an unbalanced in the fishery resource beneficiary. The irrational amount of the fishermen affected the low productivity. And, the low productivity affected the low income as well. Consequently, they catch more intensive and affected a decline in fish catches and the scarcity of the fish resources (Figure 1).

Jakarta Bay is located north of the Jakarta city. It is a shallow bay, with an average depth of about 15 m, an area of 514 km$^2$, and a shoreline about 72 km long. On its eastern and western sides, the bay is bound by two capes, Tanjung Karawang and Tanjung Pasir, respectively.

![Cyclic Diagram of the under capacity as an impact of irrational amount of fishermen](image)

**Figure 1. Cyclic Diagram of the under capacity as an impact of irrational amount of fishermen**

In 1980s, the economic development promoted by National Government policy, fishponds and paddy fields that surrounded the coastal area was sold to factories and housing. The factories caused pollution and the quality and quantity of fish stocks declined which in turn affected the standard of living and welfare of fishing families. Official estimates over the decade have suggested that Jakarta harbour has some of the highest levels of mercury and lead pollution in the world (Jellinek et al, 2001). Beside that, the catchments area of fishery was decreased because of the more intensive of the
traffic of the Tanjung Priok harbour, industrial park and the high class housing that need view. Consequently, the fishermen catch the fish only about a half of the Jakarta bay area.

Refer to Unesco report (1999) there were many factors involved in ecosystem degradation in Jakarta Bay, some of them natural such as the high sea surface temperatures during the El Niño episodes, many others are man-induced. Both of these factors include: the bleaching event in 1998; sand and coral extraction and mangrove clearance; destructive fishing practices; and pollution.

3. The Traditional Ports and Their Characteristics

There are some traditional ports in the Jakarta bay where existed some fishing kampongs beside the Tanjung Priok harbour, include: Dadap, Kamal Muara, Muara Angke, Sunda Kelapa, Cilincing, and Marunda.

There are several characteristics of the traditional port in Jakarta, include located at the estuary, existed the settlement (kampong), close to the fish auction, and using traditional management and technology.

The indigenous Betawinese used to live in the kampong closed to the estuary and fishpond. But, after their fishpond was sold, they lived together with the Buginese and the Javanese in the kampong. Economic factors were considered of this site selection for the immigrant, include accessibility to the sea, place for boat park, and close to the fish market.

Basically, there are three kinds of traditional fishing technologies: fish trap, fish catching (netter), and cultivation. Fish trap called bagan, originally from Buginese, is a bamboo scaffold built in a tent shape by a team of fishermen out at sea from which fishnets are lowered into the water overnight and then pulled up in the morning with the harvest of fish. Another kind of fish trap is serok that originally from Betawinese. The serok uses bamboo scaffold as well, but operated horizontally, located inshore and on the river.

More soil and pollutant on the estuaries is like two sides of a coin. The decrease of fish stocks both quality and quantity is one side and the other is the growing of green mussels in muddy water. The activity of green mussel cultivation began in 1980s along with the growing of industries in Jakarta but with bad waste management system. Industrial and household waste that flow through the rivers contaminated the estuaries and northern sea of Jakarta bay. Before the river became muddy, many people used it for taking a bath, and wash clothes and kitchen utensils.

“Dulu waktu belon banyak pendatang, kita biase mandi di sungai karna air nyen jernih, tapi kini airnye jadi item. (Before the arrival of the sojourner, we used to take a bath on the river because the water was still very clear. Now, the river becomes murky and polluted)”, said Usman, the Betawinese who live in Kamal Muara.
Figure 2. Some Traditional Ports in Jakarta

Dadap  Kamal Muara  Cilincing  Marunda
Muara Angke  Sunda  Kelapa  Kalibaru
In contrast, green mussels grow very well in this muddy water. People of at Kamal Muara, Dadap, Cilincing, and Marunda had a chance to benefit from it. Since then, people of these kampongs cultivate green mussels as the source of their livelihood. They unexpectedly found the method of cultivating the green mussel. Initially, they found some green mussels clinking to the bagan bamboo poles. They picked up and eat them while they worked on their bagan. Later, they had the idea of cultivating green mussel as a new commodity. They developed a method by implementing bamboo poles in the sea and twisting ropes around them, so those green mussels found it to clink.

This rope is usually called “tali putih” (white rope). Basically, they had to wait for five to six months to harvest green mussels. After the harvest, they maintain the bamboo and the rope for the same purpose.

A few of people who live in these kampongs are salted fish maker.
Commonly, fisherman in northern Java has a local knowledge about the schedule of sailing. In March – July is an appropriate moment to sail to the sea. While in August – September is an east wind season and in October – February is west wind season. In the wind season, the fisherman does not sail to the sea.

<table>
<thead>
<tr>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>Augst</th>
<th>Sept</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>West wind</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sailing season</td>
<td>East wind</td>
<td>West wind</td>
<td></td>
</tr>
</tbody>
</table>

4. Job Segregation

The implication of the fishing methods (*bagan*, *serok* and green mussel cultivation) increases the demand for bamboo, *nibung* wood pole, and white rope. Bamboo is supplied from Parung – Depok, West Java by truck. Nowadays, a few Sundanese bamboo traders came and settled at Kamal Muara and Cilincing. In addition, some Buginese from Lampung (Sumatra) supply *nibung* wood through the sea and some Javanese from Brebes supply white rope by truck.

A few Chinese involve in the green mussel cultivation. They provide capital but do not involve in the production process. Javanese from Indramayu also involve in the green mussel business as a trader in Dadap and Cilincing.

The descent between four ethnic groups (Betawinese, Buginese, Javanese, and a few Chinese) is manifested by the business related to the livelihood from the sea. In fact, the occupation related to the sea needs many labourer, including catching the fish by boat, *bagan*, *serok*, boat maker, and green mussel cultivation. The pattern “boss and labourer” is manifested by the business without reducing a brotherhood among the ethnic groups. Basically, the capital owner of *bagan* and green mussel cultivation are Buginese, a few Chinese, and some Betawinese. And, the capital and labourer of the *serok* is the Betawinese and Javanese.

Networking is another form of mutual interdependency between ethnic groups in Kamal Muara, Dadap and Cilincing. The Sundanese from Parung, Depok, supplies bamboos, boat made by Javanese from Indramayu, the Betawinese supply labourers, and the Buginese as sailors. Sea is a tie factor for all ethnic groups who live in these fisher kampongs.

The economic activity attracted immigrant from Central Java and seafarer Buginese to live temporary in the kampong.
Table 2. The Estimation of Fishermen and Immigrant in the Kampong

<table>
<thead>
<tr>
<th>Fishing Kampong</th>
<th>Amount of Fishermen</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Population (incl. Fishermen)</td>
<td>Immigrant</td>
</tr>
<tr>
<td>Kamal Muara</td>
<td>5.944 or 1.571 family</td>
<td>561 family</td>
</tr>
<tr>
<td>Cilincing</td>
<td>33.346 (400) thousand</td>
<td>-</td>
</tr>
<tr>
<td>Marunda</td>
<td>13.965</td>
<td>-</td>
</tr>
</tbody>
</table>

5. Environmental Degradation and the Economic Behavior

Field observation and using Holtorf’s map (2003) indicated that the location of the four kampongs is close to the industrial parks and the estuary. Research found that Dadap and Kamal Muara are the best place for the mussel in the west and so Cilincing and Marunda in the east of the bay. The distance and size of the industrial park influence the growth of the mussel. The four kampongs located close to industrial park that resulted industrial waste. Dadap and Kamal Muara are closed to the Tegal Alur industrial park; Cilincing and Marunda are closed to the Kawasan Berikat Nusantara industrial park.

The fish stock was declined until 40% and the fishermen need more effort for their business. Assertively, some of the fishermen in Jakarta coastal area refused the reclamation project in Jakarta. Before the government starts the reclamation project, the fishermen grievances that they were felt difficult to get enough fish. Beside that, the price of fuel and sailing license also influenced the fishermen to develop their business. The higher price and scarcity of the fuel created higher cost for the fishermen to sail. The government gave them only 12 miles offshore. If they would sail more than 12 miles, they need more fuel, money, and new sailing license.

The economic behavior of the Buginese, Javanese and Betawinese fishermen in Jakarta bay is summarized by the table below.

Table 3. Economic Behavior of the Fishermen

<table>
<thead>
<tr>
<th>Location</th>
<th>Technology</th>
<th>Natural Factor</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Season</td>
<td>Environmental Degradation</td>
</tr>
<tr>
<td>Inshore &amp; Offshore</td>
<td>Serok</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Offshore</td>
<td>Bagan</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Offshore</td>
<td>Netter/Fish trap</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Offshore</td>
<td>Green Mussel Cultivation</td>
<td>Y</td>
<td>Y</td>
</tr>
</tbody>
</table>

Using appropriate technology, the fishermen work at the inshore and offshore. The technology like serok is located on the river; the bagan serok, nd netter or other fish trap technologies are located offshore. All of these technologies are influence by the natural factor, fuel, and raw material, like bamboo and wood. In fact, there are increasing of the wood, bamboo, and fuel price. The does not season influence only for inshore technology, because they do not need to sail. The environmental degradation influences to all kind of technology and the situation was a quite serious since 2004.
6. Conclusion

The economic activity of the three ethnic groups (Betawinese, Javanese, and Buginese) created a mutual interdependency among other. The activity also attracted migrant from Java and seafarer Buginese to live temporary in the kampong.

The environmental degradation influenced the declination of the fish stock, but created a new technology, green mussel cultivation. The development today, the three ethnic groups (Betawinese, Javanese, and Buginese) prefer to do business in green mussel than fish catching.

Reference


Newspaper: