

# Tideland's development and politics and gender: The Case study of Saemangeum in South Korea

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## Introduction

Saemangeum means new fertile soil beyond the Gimje Plain in Mangyeong, Jeollabuk-do which is famous as a granary, and the name was given when the reclamation project is planned. The reclamation project of Saemangeum started in 1991 was a large-scale national project to develop 40,100 ha of land by constructing 33kms tide embankment in a large area stretching from Gunsan, Gimje, to Buan in Jeollabuk-do. The main goal of the project was to give a solution to lack of agricultural land, but the uses of the reclaimed land were changed substantially and are used for other industries, such as manufacturing and leisure. Concerning the Saemangeum large-scale national project, many arguments have continued for more than a decade among the government, local people, environmental conservation organizations, researchers and experts and people who are engaged in religiously sacred occupations over the growth of local economy by development, endangered life by destruction of ecosystem in the tideland, and the importance of economic value of marine products. In the meantime, no attentions have been paid to the rights to the living of the fishermen who had lost their way of living. With the focus on the fishermen's lives, this study aims at elucidating the impacts of the development to fishermen's communities and gender roles and the background during the period between the closure of the tide embankment of Saemangeum in 2006 and the present in 2014.

## Tideland as the life of fishermen

### The history of the use of tidelands in South Korea

Wide tidal ranges formed tideland spreading over the west coast of the Korean Peninsula and sediments washed down by slow streams of rivers, and provide space that is good and rich for the life, including humans, to sustain their lives. More than 80% of the total area of tideland in South Korea, which is 248,940 ha, is concentrated along the west coast. The start of reclamation projects in South Korea is traced back to the beginning of 12<sup>th</sup> century. In the former half of the 20<sup>th</sup> century, for solving Japan's food problem and facilitating Japanese people's immigration, an expansion of farmland was necessary in colonized Korean Peninsula. In Korea, 30% of the total area of licensed reclamation had been concentrated in Jeollanam-do until 1945. In the latter half of the 20<sup>th</sup> century, from the end of the Korean War in 1953 through the 1980s, reclamation works continued under the pretext of an increase in production of food and an enlargement of farmland. From 1990s, reclamation works were expanded into a comprehensive multipurpose development project, including securing house estate. As a result, by 2008, more than 60% of the total area of tideland has become reclaimed land, which means the area was more than tripled compared with the former half of the century. In Jeollabuk-do, thanks to the Saemangeum reclamation project, the area of reclaimed land is almost three times as large as that of tideland.

### Saemangeum as th golden fishing grounds

At the estuary of the Mangyeong River and the Dongjin River, Saemangeum tideland extends vastly. There had lived a variety of living creatures until construction works of the tide embankment were started(Fig.1). Fishes and shellfishes caught in the tideland were the sources of cash income for the fishermen, and their average annual fish catches were approximately 70,000 tons. Affected by the reclamation works, however, the catch amount of fish and shellfish as of 1996 was less than that of a decade before by approximately 35%. Fishermen regarded shellfishes as something that would not decrease in number, even if a great number of people caught them in quantities every day. Shellfish played a role of golden fields that provided them with the sole source of cash income. According to the statistics published by the Maritime Affairs and Fisheries, the catch amount of Yellow croaker and Swimming crab seems to have recovered since 2007, while the shellfish catch amount, including Common orient clam and Chinese dosinia, has decreased(Fig.2). As Jeollabuk-do boasts the first in the catch rate of varieties of Common orient clam in South Korea, the culture of clams was started centering around Saemangeum in 1961. Common orient clam in Jeollabuk-do had accounted for approximately 70% of the national average annual fish catch rate until 2007, but the percentage as of 2012 was as low as approximately 10%(Fig.3-4). Unlike such common practices of raising Common orient clam as to spread shellfish fries in jointly-owned sea and to collect clams jointly with other fishermen, fishermen in Saemangeum individually own a fixed area of sea in which clams lived as their personal fishing grounds for a certain period of time authorized by a governmental agency and then freely collect and sell clams after they have propagated.

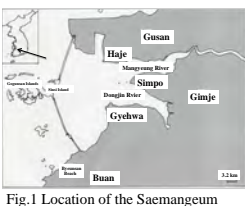


Fig.1 Location of the Saemangeum

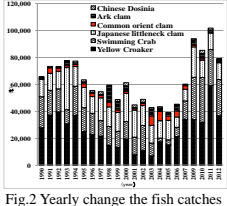


Fig.2 Yearly change the fish catches

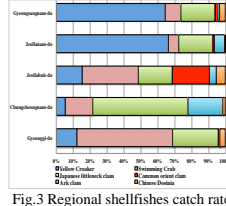


Fig.3 Regional shellfishes catch rate

### The living of fishermen in Saemangeum made from collecting shellfishes

Considered prized shellfishes only after abalones, the varieties of Common orient clam had been presented to the Royal Families from the ancient past. The prices and uses varied according to the periods of growth and the sizes. If their periods of growth were less than two years and their sizes were 3-4 cm, they were sold at 3 dollars per kg for soup(Fig.5). Common orient clam of 2-3 years of age and 6 cm in size were sold at 6 dollars per kg for sashimi. The clams of 3 years of age and over 9 cm in size were sold at 12 dollars per kg for boiling, 7cm long Common orient clam was said to be most delicious. In autumn and winter, they were eaten raw, whereas in spring and summer they were boiled or served as soup. Common orient clam is caught in the tideland, and fishermen use a rake(Fig.6) or a tool named *goere*(Fig.7). Rakes are used in shallows where clams are small, but they are useful to scoop many shellfishes at once when they are abundant. Dragging *goere* by using the power of the lower back while walking back, fishermen sense the noise and shaking of the shellfishes when they hit them. Then they pick up the clams that surface. Catching for two hours brought about 9kg clams in average. By using rakes, skilled fishermen caught 70kg clams a day, and they earned 100 dollars. Those who used *goere* caught 60kg clams to earn 150 dollars, common orient clam caught in winter were priced 14 dollars per net (weighing 10kg), but the price went down to 8 dollars in summer. Those who were good at catching would catch 90-100 kg a day, but a decline in the number of tourists and buyers lowered the prices. In J. Village, the number of people using rakes and *goere* was much greater than that of people who operated boats. In addition to shellfishes, villagers of J. fished fleshy panfish and white bait in spring, Swimming crab in summer, krill for salted and fermented dishes in autumn, and Redlip mullet in winter. To fish swimming crabs, they used drift gill nets (triple nets) and operated for 4-5 hours a day by small-sized boats at the neap.

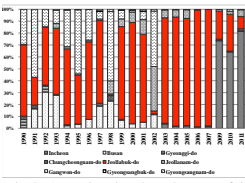


Fig.4 Annual regional catch rates of Common orient clam



Fig.5 Soup of clam

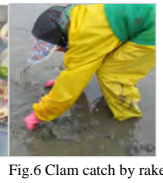


Fig.6 Clam catch by rake



Fig.7 Clam catch by goere

## Impacts on the fishermen life by tideland reclamation

### Changes in fishing activities of J villagers

A daily catch by a pump dredger was almost the same as that by 30 fishermen using rake or *goere*. Screw boats, which were improved trawlers, caught anything, including shellfishes and fishes. Local fishermen said, "Using boat, *goere* and rake, we caught shellfishes every day and night, still shellfishes were abundant. We could buy boats, give education to our children, and sustain our living. Saemangeum was really a golden sea, the sea of life for us, local people". Although they abandoned fishing after they received money in compensation for fishing rights, young fishermen who had operated on boats could not find new jobs, so they restarted fishing on 2-4-ton pump dredgers. Any actions of fishing are illegal after they received money in compensation. By a married couple or himself/herself, however, 6 people of J village own eight 1-3-ton boats and one 3-9 ton boat and catch Japanese littleneck clam in shallow seas near the sluices and fish in deeper seas. The catching season of Grand jackknife clam is from winter to March in spring. When the tide goes out farthest, they walk while pushing a tool called *seoge* 15-20-cm deep into holes which take the shape of 8(Fig.8), and then catch clams by utilizing their habit of biting when they are surprised. As they are 14 cm long and 3 cm wide, Grand jackknife clams are called bamboo clams from their shapes. A man in his sixties in J village caught an annual amount of 6,840 dollars on average for three years from 2003 to 2005, but the catch of 2006 plunged to 1,000 dollars. In 2010, the price of one Grand jackknife clam increased fivefold by the sharp decrease of fish catches. Both men and women caught Common orient clams and only men caught Duck clams, while Grand jackknife clams. In J village, Common orient clams and Grand jackknife clams are indispensable for wedding ceremonies, funerals, and religious services to worship ancestors. Especially, without Grand jackknife clams, they say that a wedding ceremony cannot be held. Since the ground for catching them was lost after the construction of the tide embankment, the clams imported from China and North Korea have been on the market, but they have not been offered for those ceremonies and services. These clams are local people's favorite side dishes in spring and served as sashimi, boiled dishes, and firepot dishes. As the Mangyeong River was completely desalinated after the completion of the embankment, roach, carp and eel are caught in quantities.



Fig.8 Grand jackknife clam catch by seoge and soup of clam



Fig.9 Change from fishing port to the yacht harbor

### Changes of community and the gender roles

Adjacent to J village extends a plain of about 32 km<sup>2</sup> reclaimed by Japan in 1925, in which are raised rice, wheat and potatoes as well as strawberries in green houses. The fishing port was so crowded with visitors that the nearby roads were congested every day. By September 2013, however, all of them had been removed and reclamation works went on in the wharf to construct a marine yacht harbor(Fig.9). J village does not have a large area of farmland, and was the poorest village in Gimje City when marine products were cheap. After 1970, however, household income grew, as the number of nurseries of Common orient clam increased and the exportation of clams went into full swing. Villagers engaged in agriculture also put priority to catching shellfishes. J village was the largest in the scale of fishing industry and active. As of September 2013, 110 persons (52 males and 59 females) of 57 households resided in J village. The number of households and the population had gone down by approximately 40% compared with the year of the completion of the tide embankment, and there were no children of 0-9 years of age. The population of teenagers accounted for 3% of the total population of the village, and residents in their 40s and 50s had also decreased by 8-10%. However, the number of people in their 60s and 70s had grown by 10-20% to account for approximately 60% of the total population of the village, and most of their households were composed of a couple or two people(Fig.10). Most of the villagers in their 60s were fishermen, unemployed, or farmer daily labors. The villagers in their 70s were mostly engaged in agriculture, had no occupation or were public assistance. The occupations of the villagers in their 50s were fishermen, self-employed, farmer daily labors by the day(Fig.11). The majority of the J villagers used to catch shellfishes remain in the village. Some of them are now engaged in agriculture, fisheries and others are unemployed or public assistance(Fig.12). Most of the men are engaged in agriculture, fisheries and self-employed, whereas many women are farmer daily labors, or restaurant employee(Fig.13). Since they lost the sea that brought about cash income, J villagers cannot lead a comfortable life any more both financially and mentally, and then in 2014 they cancelled the village festival in February according to the lunar calendar for the reason that there were no villagers who could be responsible for it. Without fishing grounds, more and more elderly people are killing time at senior citizens' community hall. They have almost no cash income, so they are oversensitive to the loss and gain, and quarrel over trifles right away. They tend to have a nasty temper. As they could not keep on fishing after the completion of the embankment, her husband became jobless, and the woman in her 60s of the J village works in the agricultural farms by a day with co-workers who are in their 50s and 60s. Fishing in the sea for 4-5 hours brought about 200 dollars a day on average, but by working in the fields, she can earn only about a half amount although it is physically harder. So they gather members for a group to maintain each member's daily allowance of 600 dollars. In the case of working in the sea, they could take days off automatically on rainy days and stormy days, whereas working in the fields is not affected by the weather, so if others work, they cannot take a rest even though they want to. Women in their 70s made 100-200 dollars a day when they caught shellfishes, but working in the fields even for such many hours as 10 brings them 55 dollars. Still women have places to work, compared with men who have none. Although elderly people who have no income can receive special allowances amounting 700-800 dollars a month, those who stopped catching shellfishes often suffered from cognitive impairment and moved to nursing homes or children's houses. As a result, there are an increasing number of empty houses, which account for more than 10% of the total households. Failing to find new jobs, many of the several thousand fishermen who lost their fishing grounds are keeping on fishing, though they are aware that they are considered temporary illegal fishermen. For fear that fishermen would feel resentful toward strict controls, the government permits tacitly such illegal fishing.

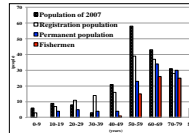


Fig.10 J villager's age structure

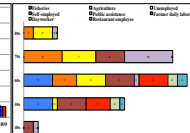


Fig.11 Age-specific occupation

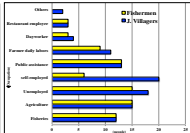


Fig.12 The change of job

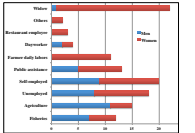


Fig.13 Gender's occupation

## Conclusion

Since it was desalinated, Saemangeum has changed into the center of freshwater fish cuisine, however, has not taken hold, so efforts have been made to open up a new market. Looking for jobs, young fishermen who had worked on the sea left the village, which resulted in acceleration of hollowing out and aging of the village. For those who were born in Saemangeum and has spent decades of years there depending on the sea before they lost their fishing grounds by the national project, changing jobs and learning new techniques are hard. It takes more than 10 years for anyone to put any jobs on the right track. Fishermen without agricultural land are absorbed in unskilled labor as day workers. Fishermen who remain in the village are forced to be self-sufficient. Their senses of solidarity and belonging to the same community promoted by mutual aid as well as relationships established beyond generations have been shattered. Thus, just as the tideland is disappearing to be part of land, so the fishermen are getting exhausted and impoverished. Furthermore, the development that should have vitalized local economy affects it adversely. The fishermen who constitute the minority and the weak are made acutely aware how helpless and hopeless they are. Leaving such wounds to them, still the development project is making progress toward the completion of a vast area of land and expressways in 2020. Whom do they develop tideland for? I would like to continue studies and see how local people around Saemangeum will cope with more changes of natural and social environments in the future.