



The Impacts of Environmental Problems on Women's Life

Natural resource management by the community and companies has direct impact on women's lives. The contamination of clean water sources and floods impact women in their activities in meeting their daily needs. This can be seen from the mitigation efforts that are done mostly by women.

1. Women are Considered to be Responsible to Find Alternatives

As water is polluted and food supply is dwindling, women have to independently take the efforts to find alternatives. They, for example, have to go to the hill to collect clean water as well as doing farming for food supply.

2. Women in Disaster Mitigation

Floods, of dirty and muddy water, results in economic burden for community. Loss of food supplies, degrading environmental conditions, and damaged household assets directly impact women's life. Attempts to normalise environmental conditions are thought to be the responsibility of women, just like the responsibility to clean the house and the yard. This adds women's burden.

3. Women and Livelihood Sustainability

Air pollution, disasters, and the decrease in food supply are among the things that concern women.

Efforts are taken by women to get involved in development, as women are eager to involve themselves in the effort to preserve the environment and to sustain their livelihood. One of the efforts taken is done through women's participation in development planning deliberation (Musrenbang) in Nagari Tambang. In 2015 Musrenbang, the number of female participants was 73 out of 96 participants. These women were representatives of integrated early childhood care, SPP, taqlim assembly, heads of nagari, heads of jorong, and ninik mamak (traditional leaders).

End notes

- ¹. *Geografis dan Topografis. Pemerintah Kabupaten Pesisir Selatan*, accessed from <http://www.pesisirselatankab.go.id/profil/5/geografis-dan-topografis.html> on Monday, January 4 2016 at 10.15 Western Indonesian Time.
- ². *Kecamatan IV Jurai dalam Angka 2014. Badan Pusat Statistik Kabupaten Pesisir Selatan*, accessed from <http://pessselkab.bps.go.id/old-yii/advance-released-calendar/arc/IV-Jurai-Dalam-Angka-2014#p=36> on Monday, January 4 2016 at 14.18 Western Indonesian Time.
- ³. *Data Hilangnya Lahan Tutupan Pohon di Kawasan Hutan Lindung Kabupaten Pesisir Selatan*, accessed from <http://commodities.globalforestwatch.org/report.html> on Wednesday, January 6 2016 at 16.51 Western Indonesia Time.
- ⁴. *Dua Selatan Satu Persoalan oleh Drs H Fachrul Rasyid HF. Harian Haluan Edisi Selasa 24 Juli 2012*. Accessed from <http://issuu.com/haluan/docs/hln240712/6> on Friday January 8 2016 at 14.07 Western Indonesia Time
- ⁵. *Dua Selatan Satu Persoalan oleh Drs H Fachrul Rasyid HF. Harian Haluan Edisi Selasa 24 Juli 2012*. Accessed from <http://issuu.com/haluan/docs/hln240712/6> on Friday January 8 2016 at 14.07 Western Indonesia Time.

Natural Resource Management & its Impact on Women's Life in Pesisir Selatan

Introduction

Pesisir Selatan District, Sumatera Barat Province, consists of 15 subdistricts with a hilly landscape and 18 rivers flowing within its boundary. Its area is dominated by forest areas which amount to 83,91% of the total area while the rest of the area is formed of rice fields, plantations, and residential area.¹ This indicates that community areas are located in potential location for sustainable development. IV Jurai Subdistrict in Pesisir Selatan District is among the locations with the largest designated forest areas of 37,83%.² These areas are designated as a nagari (village) forest while at the same time; companies have converted parts of this forest into an area for natural resource management.

Global Forest Watch Data 2014 indicates that tree cover loss is as much as 15% of the total area of Pesisir Selatan. Tree Cover also takes place within the protected forest. Protected forest in Pesisir Selatan covers an area of 284.434 hectares or 47% of Pesisir Selatan's total area. However, it is indicated that the rate of tree cover loss is decreasing, indicating that there is an effort to fight illegal logging in the protected forest of Pesisir Selatan.³ Forest area serves as the home for rich vegetation which provides food supply, maintains the air condition and serves as water absorption area.

Furthermore, land in IV Jurai Subdistrict is allocated as farming areas and mining field. Nagari Tambang is the nagari with the second most populated area in IV Jurai Subdistrict (468,01). Conversion of forest into mining areas takes place within the boundary of IV

Jurai Subdistrict, indicating that utilisation of forest.

Access to Public Services

Public services such as education facilities, health facilities and infrastructures are an important indicator of people's welfare. When people cannot access education and health because of the inavailability of access to public services, their human development index is affected. Based on West Sumatera's BPS (2014), human development index in the area ranked the 11th from 19 districts/cities in Sumatera Barat. The human development index of the area is 67,75 while the index for West Sumatera is actually 69,36. This indicates that the index of Pesisir Selatan is still below average.

Access to Education Facilities

As the higher level of education is only up to junior high school, kids who want to continue their studies have to go to IV Jurai Subdistrict which is an hour ride by public transportation. To reach their schools, they have to spend more money as public transportation is lacking and the only available one is motorcycle taxis which charge people quite highly.

Access to Health Facilities

To access health facilities, people need to spend approximately an hour drive on winding and difficult road. Limited access to public transportation and referral system prevents people from accessing health facilities. This carries the risk of the worst possible risk, delayed and late medical treatment.

Women also have their own different needs related to their reproductive health. However, as women are socially thought to be the most responsible in ensuring the health of the families, women tend to focus more on her family's health instead of their own needs to access health service.

Access to Market

People in Nagari Tambang are accustomed to use their own produce from the field and the forest. However, with the changes in forest condition, to meet their needs, they have to shift to traditional market located within 30 minutes ride from their residential area.

Access to Clean Water

Community cannot directly use the water from Batang Hari River due to the quality of the water which is made bad by changes in forest condition. People in the area have to access water from the hills, using pipes as long as 300 metres to 1 kilometres. This, however, does not guarantee a smooth access to water as problems such as pipe leaks are quite common. This impacts water supply, in which women are thought to be responsible to provide clean water for the family.

Natural Resources in the Area

Pesisir Selatan District is potential for the farming and plantation of palm oil and rubber tree. Pesisir Selatan is also the largest producer of seafood in West Sumatera, with a total production of 26.000 tonnes a year,⁴ due to its close proximity with the sea. Its potential in mining sector is also big as mineral resources namely coal, gold, lead, andesite, granite, and quartz sand are abundant. However, in practice, the management of gold mining in Nagari Tambang has been taken over by big companies holding Permit for Mining Activity.

The abundant resources in Pesisir Selatan necessitate good management of local wisdom in which women and men are equally involved in the process. The division of labour between the two needs to result in the balance of social life and ecology.

However, it is recorded that 30% of 91.918 families (2011) in Pesisir Selatan live under poverty line, making the number the highest in West Sumatera.⁵ Every year, the number of poor family changes. In 2013, it was 38,33 thousands or 8,64 from the total population.

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The Utilisation of Natural Resources by Women

The utilisation of natural resources are considered as economic utilisation as a form of productive work and a means to meet people's daily needs.

• The Utilisation of Natural Resources for Economic Purposes

As told by local people of Nagari Tambang, men's main job is doing mining work (90%). On the other hand, women manage lands that are not converted into mining field. Women do farming and collect food and water. The difference in the form of productive work that men and women do result in different roles they plan under different settings. Women, besides being thought as responsible for the fulfillment of daily needs and the management of household, are expected to also help families' economy by working as farm workers. However, this role of women is often overlooked even when it contributes to families economically.

As mining workers, men work on an on-and-off basis. They spend one day in the mining field and then one day at home. When they are at home, they choose to shift their productive work into going to lapau (traditional food stall) with their groups of men. Differently, when women are at home, they spend their time looking for food supply while taking care of their children and accompanying them learning at home.

• The Utilisation of Natural Resources to Meet People's Daily Needs

Women have close interaction with the environment as they are involved in the management of the environment. In fact, women are involved in

the management of natural resources, including when they have to shift from relying on forest to relying on the field.

This shift illustrates that the condition of the environment affects the lifestyle of women as they have to seek for alternatives to meet their needs. Exploitation of natural resources and eviction in the name of development marginalises them even further as it limits their control and access to natural resources. Such process also overlooks the role women play in managing the environment.

Environmental Problems

As the area also offers opportunity for mining business, companies also want to have license for mining cooperation. It is recorded that there are three coal mining licenses and two gold mining licences in IV Jurai Subdistrict. This mining activity brings changes to environmental condition.

The mining of gold in Nagari Tambang has an ecological impact such as the pollution of water which leads to the scarcity of clean water. Chemical substances such as mercury, cyanide, sulfuric acid, arsenic and metal mercury are used in the mining field. Most of these substances are released to closeby rivers. This practice pollutes water in the area and leads to the scarcity of water, adding extra burden for women to find alternatives for clean water.

Along the irrigation line from the top of the hill to the residential area, we found yellowing stones, indicating water pollution as a consequence of the mining of gold. This pollution directly affected people's activity. This can also be observed from the frequent case of skin problems experienced by the residents of IV Jurai Subdistrict.

The conversion of forest into mining field also leads to forest losing its function as water absorbent area, causing frequent floods and landslides. In 2015, the area was flooded by muddy water which destroyed facilities such as a bridge which connected many nagari and jorong. This was caused by the overflow of water in five rivers within Pesisir Selatan. When it is rainy season, the river channel is also dangerous. In 2015, floods in the area resulted in casualties among the residents.