

## Tin Folk Mining in west Bangka District of Province of Bangka Belitung Island And the Impact on life Environment

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**ABSTRACT:** *Bangka Belitung Island is the largest tin-producing island in Indonesia and second only to Malaysia. With the decline of the tin industry since 1991 due to the decline in world tin prices are result PT. Timah Tbk must stop some mining activities in Bangka Belitung Island to reduce production costs and provide opportunities for tin mining people to mine on traditionally abandoned land. However, over time this lead mining of the people resulted the negative impact on the environment because mining is done not only in the former mining land of PT. Timah, Tbk but began to expand into protected forest areas and conservation forests, as well as near the Watershed (DAS) which ultimately resulted in flooding during the rainy season. This research is a qualitative research aims to analyze the impact of tin mining people against floods in the province of Bangka Belitung Islands and analyze the efforts made by the Provincial Government of Bangka Belitung in flood tackling due to tin mining people. The results showed that human factors greatly affect the environmental damage. It is necessary to formulate policies that regulate the people's tin mining and supervision of the tin mining activities of the people.*

**Keywords:** *Tin Folk Mining, Environmental Impact.*

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### I. BACKGROUND

Bangka Belitung Province, is one of the youngest province in the territory of the Republic of Indonesia with a population of 1,277,586 people (2015), formed through the Act no. 27 of 2000. [1] Bangka Island is located beside the southern eastern coast of Sumatera which is 1° 20' - 3° 7' South Latitude and 105° - 107° East Longitude extends from the Northwest of the organizers along ± 180 km. The island consists of swamp - marsh, fen, hill - hill and top of the hill there is a dense jungle while on a strip swamps there are the mangrove swamp, land Bangka Island is not so different from the bog the Island of Sumatra while the privilege of her is sloping beaches of white sand decorated with a stretch of Granite stone. [2] Bangka Belitung Islands Province consists of two large islands of Bangka Island and Belitung Island area of mainland Province of Bangka Belitung Islands only 16.423.54 km<sup>2</sup> or 20.10% with details of Belitung Regency area 4,800.00 km<sup>2</sup>, Bangka regency 11,535. 14 km<sup>2</sup> while the waters area is 65 301 km<sup>2</sup> or 79.90%. [3]

In accordance with the provisions of Article 18 paragraph 1 of the 1945 Constitution: The Unitary State of the Republic of Indonesia shall be divided into the Provinces and Provinces of the Province for the Regency and City, each Province, Regency and City having the Regional Government regulated by law.

Based on the mandate of the 1945 Constitution in the Province of Bangka Belitung Islands has a Regency and City whose establishment is based on the act. The embryo of Bangka Belitung Islands Province consists of two districts and one city namely:

- Bangka as stipulated in Law - Law No. 28 Year 1959 concerning the enactment - Emergency Act No. 4 of 1956;
- Belitung as it is regulated in Law - Emergency Law No. 5 of 1956;
- Pangkalpinang City as stipulated in the Emergency Law number 6 of 1956 concerning the establishment of Second Level Regions including Municipalities within the regional environment level I of South Sumatra as Act.

After the formation of the Province Islands of Bangka Belitung then based on the mandate of the 1945 Constitution formed some more districts that used to be the area of Bangka Regency and Belitung Regency. on

25 February 2003 belonged the Act 5 of 2003 on the government established a South Bangka Regency, Central Bangka, Bangka Regency West and East Belitung in Bangka Belitung. The vision of the Province of Bangka Belitung Islands is the realization of a prosperous country that is prosperous through a trustworthy government by improving the quality of society and empowering all the potential of the region wisely and environmentally mindful within the Unitary State of the Republic of Indonesia. It is undeniable that almost part of the land (land) in Bangka Belitung Islands Province is part of the people's mine or commonly called the unconventional mine. People's mine is the most strategic means to earn a fortune for the people in the Bangka Belitung Islands Province after the heyday of pepper as the most important commodities are getting worse and the price is getting worse (February 18, 2005 the price of pepper ranges from Rp 20,000 to Rp 21,000) . [4]

Apart from the increasingly dim smell of Bangka pepper aroma that is famous for its quality and quality is fantastic and already famous in all over the world, there is a new trend in Bangka Belitung Islands Province that is tin mining people who destroy and destroy the environment. People's mine appeared Bangka Island surface this time around 1999 until now is uncontrolled again, thousands of hectares of land in Bangka has become a place / location of mine people. The People's Mine was born from the stomach of the earth as a result of the conflict between the local government due to internal conflict between the Regional Government and the state-owned enterprise in the field of tin or tin mining of BUMN named PT TimahTbk. Regarding the division of natural products because they do not reach an agreement from both sides, thus causing a feud between the state and local government. People's mines are also attributable to the economic condition of the Indonesian economy which is experiencing crisis and political situation that is chaotic in New Order era so that the condition also impact to Bangka Belitung. Actually the opening of mine people alongside roads, watersheds (DAS), coastal beaches, protected forests and place - other places have been violated Bangka Regency Regulation No. 6 of 2001 on the management of public mining in origin P 9 and P 34 namely:

Within the territory of the region shall be the general mining area, the people's mining and the enclosed area for mining and Article 34 paragraph (1) Mining business may be carried out throughout the territory except for burial sites, sacred places, historic buildings, prohibited and protected berdas a Refresh Laws - laws and regulations.

People's mines can be found in every village or village, at back home / resident residents, at a people plantation that has been abandoned by its owner, at river basin (DAS), coastal area famous for the floating people's mines and edge village road or village. These people are very vulnerable mine the process of environmental destruction and habitat - habitat that exist in the environment. Basically tin mining activities have consequences that are not light to the environment. People's mine becomes a natural *phenomenon* that is very difficult to separate from the reality of people's lives in Bangka Belitung Islands Province, the income earned from this tin mining is very tempting. Very fantastic results obtained from this tin mining project, one day the miners can produce about 50- 100 kg of tin ore with good quality, imagine if the price of tin reaches Rp 35,000 just means a day the owner of the mine people earn a profit of Rp 3,500 Per day (100 kg X Rp 35,000).

The process of searching of tin ore was carried out by means of excavation/spraying the soil by using a fairly sophisticated machine, the ground was dismantled using heavy equipment or PC to facilitate the miners to carry out their work. Heavy equipment / PC is a major contributor to environmental damage in the Islands Province of Bangka Belitung. Through a long and time-consuming process we can finally see the very deep hole that flooded in the world of tin mining called the *holecamuy*. Tin is a natural resource that is not renewable and must be used as effectively and thoroughly as possible is used for the greatest prosperity of the people according to the mandate of origin P 33 paragraph 3 of Law - 1945 Earth and water and natural resources contained therein are controlled by the state and used for the greatest prosperity of the people.

Tin mining activities that are managed by populist as the People's Mine began to be alarming and increasingly threatening the natural beauty of the earth allied sebalai and the location of excavation / tin mining widened by not only reaching a certain area but tends to start indiscriminately throughout the belly of this earth containing lead, then at situ machining - machinery and other equipment is lowered. As a result, under the void (hole camoy) is increasing and environmental damage and its habitat is inevitable. Understandably, both local government and provincial government and the City District Government, looks very heart - the heart in people's respond mine problem.

**There are several reasons that may be considered:**

1. The issue of people's mines concerning popular issues related to community kitchens, closing the people's mine in vain will cause great turmoil and that means the local government should be ready to be labeled impartially on the small people.
2. If left to the people's mines are increasingly threatening the balance of the environment and in turn will spread other to segment, that inherit environmental damage to the next generation.

On the other side of the Local Government as the guardian of the gateway of community welfare should also pay attention to environmental management oriented to environmental sustainability.

## II. DISCUSSION

### A. Impact of Environmental Damage Due to People Tin Mining

The impact of mining tin that is felt today by the people of West Bangka Regency, among others, the occurrence of under - under, damage to public roads due to be passed by a vehicle trailer that carries equipment - heavy equipment / PC, noise pollution as a result of the machine - the machine artisanal mining, waste or teiling the results of disposal from mine people flowing to the river makes the river water can not be used again. There is even a waste of the teiling that inundated the houses and the occurrence of the base of the river by the mud left over mining and also damage to marine life due to tin mining people in sea. According to Regulation No. 6 of 2001 on the management of general mining in the P origin 24 said about the criteria of mining people.

#### The Criteria Of People's Mining Are As Follows:

##### a. Classification a:

1. managed individually;
2. using simple and non mechanical equipment.

##### b. Classification b:

1. managed individually;
2. using a maximum of 2 (two) machines each of maximum 20 PK.

Based on the above criteria, the people's mines that use heavy equipment or PCs can not be categorized as mines of the people anymore but as general mining that must follow the existing regulations on general mining licensing. It is ironic in the field where almost every mine found in the mines already use heavy equipment / PC. Small-scale smallholder mine operated simply does not cause problems because only 10 cubic meters per month is mined but if the mine uses heavy equipment / PC then half a hectare per day with a depth of about 2 meters, you can imagine the environmental damage resulting from the use of this heavy equipment. [5] It is estimated that there are 3000 units of heavy equipment in Bangka Belitung Islands Province is mostly found in West Bangka District. Heavy Equipment / PC in addition to causing damage to the environment is also a lot to absorb fuel oil (BBM), should Solar that fuels her in the category of industrial fuel which is much more expensive and not fuel subsidy for the people but the fact the field equipment - heavy equipment / This PC uses many of the subsidized fuel in the General Filling Station (SPBU). [6] Road damage was inevitably where the road - the road frequently traveled by vehicle trailer that carries equipment - heavy equipment, the road becomes bumpy even exist due to the broken bridge beneath the weight of its heavy equipment. The most severe environmental conditions in West Bangka Regency are found in JebusSubdistrict because in this district the tin reserves are still high then the exploitation of tin continues to be done both on the ground and on the sea, almost on every side of the highway appears visible holes and piles of high soil which is a former excavation of heavy equipment to make a camoy hole. [7] Camoy hole is a hole used from the machine spray through a long process and finally formed a hole camoy about the hole camoy can be seen in the photo attachment at the end of this thesis.

In some areas it appears that the reclaimed land has been destroyed by being re-mined, at this area there are many people's mines are just a few meters from the edge of the highway, the hole / underneath is left gaping and filled with water. The result of the author's interview with Mr. SyaibiKayum SH, Secretary of Bapedalda Province of Bangka Belitung Islands who had writer note, among others:

- a. Bapedalda has never handled environmental dispute cases, as set out in the UUPH in Chapter VII concerning the settlement of environmental disputes, in P of 30 paragraph ( 1 ) is said to be Environmental dispute resolution can be pursued through courts or outside the court on the basis of voluntary choice of the parties to the dispute.

He said there were no parties - parties to the dispute in this case the environmental case, either by individuals or by the class action, it is much disputed today is the ground because the ground contains a lot of lead. Society at The Province of Bangka Belitung Islands generally and the West Bangka Regency are particularly reluctant to dispute environmental issues even though their environment is polluted like river water pollution because most of them rely their lives on this tin mining of the people.

- b. Steps - steps that have been taken by the bodyguard BAPEDALDA environmental sustainability in Province Bangka Belitung islands, such as socializing Law - Environmental Law No. 23 of 1997 and environmental legislation, and published a book on environmental looking after obligations according to Islam propagated in mosque - mosque every village / village to be preached every Friday because it has become a habit for Muslims across the archipelago of Bangka Belitung Islands Province on Friday they are off from all their activities one of them work in the mine of the people. [8]

Environmental damage in West Bangka Regency is mostly caused by heavy equipment / PC. This can be found in every mine in West Bangka district because they use heavy equipment because they have difficulty to find tin and to remove topsoil which does not contain lead when using machine spray to remove topsoil takes a long time. [9] Damage is not only illegal areas and some even to damage the roads of very serious environmental impacts due to the activities of this People's Mine if not addressed soon will cause disruption to living creatures that live nearby. The impact now felt by the public is turbid river water, the temperature of the hotter air because the forest is mostly damaged. Mining on the smallest shelf can damage marine ecosystems as the ocean will change, in addition to damaging the marine ecosystem of waste from the people's quarry in The sea was incredible as lubricating oil spills, spills of diesel and teiling which makes the fish - the fish run and nesting elsewhere. [10]

Many coral reefs are damaged as a result of spraying the spray machine, at where this coral reef is where the fish nest and breeding. In addition to causing environmental damage on land and at sea as it is mentioned above, tin mining, the people too much to absorb fuel oil (BBM), in particular fuels of diesel, diesel is required for the machine - the machine artisanal mining, heavy equipment, and also smelter / smelting tin into blocks - blocks of lead. Almost can be found in every Fuel Station General (SPBU) in West Bangka Regency long queue to get this queue is dominated by drier-conductor measuring 20 liters, and there is also a modify tank car to accommodate more diesel fuel. [11]

It is undeniable that most of the people's mines are illegal aliases that have no Mining Business License (IUPR). The function of licensing is to nurture, guide, monitor and curb activities - activities in the field of mining and therefore the license should be formulated with clear terms, the rights and obligations that must be met by the permit holder. Regarding the safety and health of mined tin people is very worrisome where can be seen from the victims - victims who have fallen both the mine of the people landed and mine the people of the sea most of them are buried in landslides there are dead and there is also a permanent disability and they the victims many do not pay attention to health and safety in the field of mining. In the p origin 59 paragraph 1 of Regulation No. 6 said a mining operation should not be implemented before the IUP or IUPR but the fact of its field many artisanal mining that does not permit even if there were only one or two mines of the people who have it, most of the artisanal mining is in Mining Authorization (KP) of PT Timah because it is in PT Timah then authorized to grant Permit to mine is PT Timah. [12]

The existence of a mine or better known as unconventional mines in the area of JebusSubdistrict of West Bangka Regency is very concerned because it has penetrated the resident population whereas doing tin mining near the settlement has violated Local Regulation No. 6 of 2001 in P origin 34 said:

Mining business may be carried out in all areas except for cemeteries, sacred places, historic buildings, settlements, public facilities, restricted areas and protected under prevailing laws and regulations

## **B. Miner's Responsibility To Environmental Sustainability**

Regarding responsibility for environmental sustainability miner outline the act regulated under Law No. 3 2 of 2009 about Protection and Environmental Management (UUPLH), further regulated under law No. 6 of 2001 about General Mining Management. Article 6 paragraph 1 UUPLH states: Everyone is obliged to maintain the preservation of environmental functions and prevent and overcome environmental pollution and destruction and its paragraph 2, everyone conducting business and or activity is obliged to provide true and accurate information about environmental management.

Based on the original P 6 paragraph (1) The miners of the people obliged to preserve the function of the environment and are required to tackle pollution, do not do environmental destruction, and implement mined land reclamation. It seems that the origin P 6 Ayat (1) it is difficult to run by the miners of the people because they are a source of pollution and environmental destruction. It is the responsibility of the Regional Government of West Bangka Regency to undertake environmental guidance, management and monitoring under article 49 paragraph (2) of Regional Regulation Number 6 of 2001, IUPR holder has deposited reclamation guarantee fund in accordance with P origin 50 paragraph (1) :

Holders of IUP, IUPR and or Contractor of Mining Business Agreement shall be required to deposit reclamation guarantee fund as financial security to reclaim former mining land and deposited to Regional Cash in the form of deposits on behalf of the Regent and the interest of the bank from such deposit shall belong to the Region used for coaching activities and supervision of general mining business.

Thus, based on the original P of 50 paragraph(1), reclamation activities are the local government using the reclamation guarantee fund from the IUPR holder, indirectly the holder of IUPR has relinquished his responsibility to reclaim the former mining land. In article 12 of the Decision of leader of district of Bangka Number 6 Year 2001 it is said that paragraph (1) is:

The leader of district shall give a written warning to the IUP and or IUPR holder if it does not show seriousness, failure or negligence in carrying out reclamation. Paragraph 2 if within 60 days after receiving the warning letter referred to paragraph 1 the IUP holder and or IUPR does not carry out reclamation, the Regent shall take the following actions:

- a. Appoint a third party to complete reclamation using part or all of the reclamation guarantee placed.
- b. Halt or temporarily shut down some or all of its mining operations. And paragraph 3 of the IUP and / or IUPR Holders whose mining business activities are suspended due to negligence or failure to perform reclamation obligations, the holder of the IUP and or IUPR shall not be given the opportunity to try in the field of general mining.

Based on article 12 paragraph 2 of this Regent Decree, IUPR holders are required to complete the reclamation of ex-mining land. According to the origin P 14 paragraph (1) -U ndang Act No. 23 of 1997 (UUPLH).To guarantee conservation of environmental functions, any business or activity is prohibited from violating the standard and criteria of environmental damage Tin mining is a business or activity, an effort to have an understanding of the activity by mobilizing the mind or body to achieve something. [13] It is undeniable that mining activities will always damage the environment and violate environmental standards need to find solutions which is appropriate to overcome the tin mining of the people that impact on environmental damage one of them by reclaiming mining land. Please also note the tin mining people have no environmental impact assessment (EIA) as it is in small-scale mining, although the scale ketch l but its impact on the environment is incredible. According to P origin 15 paragraph (1) UUPLH Any business plans and or activities that are likely to have significant and significant impacts on the environment shall have an analysis of environmental impacts. The criminal sanction in the local regulation is only for 6 months which makes the perpetrators of criminal acts of destructive environment deterrent is suitable if Article 41 Paragraph ( 1 ) UUPLH is applied for the result of pollution and the destruction of the environment.

### III. CONCLUSION

**In answer to the problems posed by the author, it can be conveyed the following conclusions :**

1. That the environmental damage caused by the mining activities of the people in West Bangka Regency is already in a very alarming stage, where mining conducted by the local community does not pay attention to environmental sustainability anymore. Pollution caused by artisanal mining such as river water pollution as a result of teiling, damage to roads, the incidence of under - under new and noise pollution from engine - engine artisanal mining has been concern. So the impact of this people's tin mining on the environment is really in a critical stage that needs to be addressed. In addition to having a positive impact that can prosper the people of West Bangka Regency, the negative impact is the environment has been destroyed due to excavations here without doing reclamation.
2. That the responsibility of the miners on environmental sustainability still does not exist, this can be seen from the former - tin mining sites that have not been reclaimed. Based on the provision of P 6 paragraph ( 1 ) of the environmental management law and P origin 49 paragraph (1) Bylaw No. 6 of 2001 the tin miners are required to conserve the environment by reclaiming the ex-mining land.

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