

THE NEW POLITICAL GOVERNANCE OF TIN MANAGEMENT IN BANGKA BELITUNG ISLANDS, INDONESIA: LOCAL ELITES' PERSPECTIVE

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Abstract: The management of tin mining in the Bangka Belitung Islands, which is the world's second largest producer of the mineral, is a complex issue, and has divided the community into two factions. One side is concerned about the ecological impact and other social implications of tin mining, while the other side is concerned with the island's economic dependence on tin, overlapping policies and law sub-optimal enforcement. This study discussed how local elites view ideal tin mining governance. The researchers found that the elite in Bangka Belitung wanted a change in governance by changing national tin mining policies and proportional distribution of authority between the central and regional governments. This showed that there is a gap between the desire for change in the tin mining industry, and to remain passive in an established order.

Keywords: Politics, governance, tin, ecology, Bangka Belitung.

Introduction

Indonesia is one of the largest tin producers in Southeast Asia. However, production of this non-renewable commodity is concentrated in a small area, which stretches from the south of Sumatra, particularly the Bangka and Belitung Islands (Sujitno, 2007). Historically, approximately 90% of Indonesia's tin was produced from this archipelago. Heidhues (2008) reported that the islands have been a major tin-producing area since around the 15th century. The exploitation of tin deposits there was also recorded during the colonial era from the 17th to 19th centuries and during the Palembang Sultanate era (Reid, 2009). The migration of the ethnic Chinese around the 16th century was also closely related to the history of tin mining and trade between the Palembang Sultanate, Dutch VOC, and Chinese merchants (Sakai, 2003; Erman, 2009; Ibrahim, 2015; Kurniawan, 2018). Despite being mined for hundreds of years, tin deposits in these areas are yet to be exhausted.

In 1998, there was a radical change in the management of tin mining, from an authoritarian regime to more flexible arrangements. The ore was freely extracted by local inhabitants and the

industry was no longer under the authority of the central government through the state company (known as BUMN) or private business entities that obtained management rights. Debate on the environmental and other adverse effects of tin mining is not new, but it has become more conspicuous since the advent of deregulation. It has been more than 20 years since tin mining was made accessible to the public, and this has led to certain problems such as environmental damage, trading systems, tin exporters, relations between State-owned Enterprises (SOEs) and private smelters, legal and illegal as well as large and small scale miners, child labour, the issue of integrating women in this sector, fuel subsidies, conflicts with fishermen and tourism actors, and economic excesses due to the rise and fall of tin prices (Darwance *et al.*, 2019; Zulkarnain *et al.*, 2019). The intersection of interests in tin mining, including those of state-owned companies (in this case PT Timah), private tin entrepreneurs, illegal miners, and the position of the State, are very complicated issues. These conditions led to numerous debates on the appropriate policy for tin management.

Decentralisation of tin mining has led to certain significant changes, namely the emergence of flexible mining activities, tin trading companies and investment flow, as well as expanded mining opportunities. There have also been negative impacts on the environment, (Muslih *et al.*, 2014; Siringoringo & Hadi, 2015; Sari & Rosalina, 2016; Nurtjahya *et al.*, 2017; Ramadona *et al.*, 2020) rise of moral decadence (Rendy, 2017), increase in child labour (crime or distrust among themselves) (Pratama, 2018), and also chaotic tin management and governance (Ibrahim *et al.*, 2018). Haryadi (2015b) reported that tin governance in the New Order era was marked by centralisation. On the contrary, the Reformation era is characterised by decentralisation, wide access to local government, as well as the involvement of the local society in mining. The state is seemingly not involved, but, Erman (2007) stated that emerging local shadow actors play a role in regulating tin governance and commerce. In this case, the local shadow state is synonymous with governance and conspires with various parties. There was massive tin smuggling at the beginning of the Reformation era, which continued in different forms periodically. Furthermore, mining permits, bartering political support for licensing concessions and the strong influence of investors in government management in the mining sector are indicators that political corruption is an inseparable part of natural resource management in this area. According to Batterbury (2018), many supporters of ecological politics pay attention to the forces in society, to determine individual strengths, and how they are used.

Interestingly, the community is aware of the dangers of mining. Ibrahim *et al.* (2019), reported that there is awareness of the risks of environmental damage in the future and its resolution. Rosyida and Sasaoka (2018) stated that local fishermen were not in support of offshore mining, however, the political decision-making system dominated by elites makes it impossible for them to influence certain judgements. On the contrary, it is also believed that the elites benefit from tin mining

(Rosyida *et al.*, 2018). However, the status quo is authorised.

The discourse on tin management closely relates to its political context because it provides a forum for decision-making (Erman, 2010). Furthermore, numerous studies have been carried out on the dynamics of industrial growth in addition to political and government interests (Amelia, 2017; Purnaweni *et al.*, 2019; Szablowski & Campbell, 2019). Subsequently, there is a need to ascertain the stance of the elites because they influence policy. Therefore, it is of paramount importance to ascertain their viewpoint in this regard. In fact, many studies show how the decisions of elites in a region determine the running of the government (Archellie, *et al.*, 2020), in Nasution's study (2021) states that the elite are groups that have the ability to organise. Of course, like Aminuddin and Ramadlan's study (2022), elites in this study are understood in a broader context, including political figures, officials, and civil society groups.

This study, thus, focuses on how local elites view ideal tin mining governance with the hope that this view will become a source of reference in policy-making. Although the debate on this issue tends to be dynamic because it is related to several diverse interests, this study serves as an approach to document their opinions. However, this study does not specifically explore the perspective of the elites directly involved in tin mining, rather they are positioned as the determining parties in decision-making at the local level.

Policies on tin mining management on this island are enacted due to political decisions. Historically, the ruling regime is the main determinant of tin mining processes and ultimately decides how local communities place the commodity in their economic activities. Based on this practice, it is assumed that the implications of massive mining on the environment have resulted in a long discourse about the result of such policy formulation by the political elite. The perspectives of the elites in this study make it possible to gauge how their

views influence government policy. Therefore, this study can be a useful guide to effect policy changes. The ecological crisis is the result of political policies, therefore, the political framework used to determine the strategy that allows access to tin resources is a vital area that needs study. Batterbury (2015; 2018) stated that inequality in accessing natural resources is part of a central theme of ecological politics, as well as environmental marginalisation (Benjaminsen, 2015; Holifield, 2015), which is the focus of this study. The ecological politics at play determine the current state of the environment. Therefore, knowing the perspective of local elites is a tool to determine what political elites in Bangka Belitung actually expect and how they view the decisions made, the contextual conditions of tin mining, and future expectations. Of particular interest to this study is the elites' perspectives concerning the recent discourse on tin mining management. It is hoped that the findings of this research can provide an overview of the debate over tin management in Bangka and Belitung and attract international attention to their dilemmas and environmental impacts.

Bangka Belitung Tin: Past and Present

Bangka and Belitung are two large provinces that make up the Bangka Belitung Islands located in the southern part of Sumatra Island. In 2000, it became an autonomous province surrounded by approximately 250 islands. This region has contributed to almost all of Indonesia's tin exports. It is also home to Indonesian white pepper producers.

The discovery of tin in Bangka Belitung occurred long before the emergence of colonialism in the 1700s. According to numerous historical evidence, Chinese traders bought tin in the 16th and 17th centuries before the Palembang Sultanate ruled this area (Sakai, 2003). Moreover, it has been reported that the word Bangka is derived from the Sanskrit word *vanca*, which means tin. Besides, some scientists also reported that traders before the Palembang Sultanate era perceived it as an essential commodity, particularly in Belitung,

where the local population had discovered tin ores long before the arrival of the Dutch. The trail of ancient tin mining is marked by the discovery of elephant teeth in Kepenai, which were estimated to have existed 2000 to 4000 years ago (Kurniawan, 2018).

When conflict arose in the Palembang Sultanate, some of its elites migrated to Bangka despite the fact that tin management was under the jurisdiction of the Palembang Sultanate, an imperial area under the current administration of South Sumatra Province. Therefore, the arrival of the Dutch through its trade organisation VOC led to the development of trade relations between the Palembang Sultanate and the Netherlands. The relationship at that time was only between the miners and the constituted authorities (Sujitno, 2007).

However, during the colonial era, tin mining in Bangka Belitung eventually came under the complete authority of the Dutch East Indies Government. According to historical accounts, in the early 1800s, the Dutch colonialists had to surrender their jurisdiction of the area to the British for six years. When this treaty arrangement ended, the Dutch control over the area continued until Imperial Japanese forces occupied the area for three years from 1942 to 1945 (Erman, 2007; 2010).

Conversely, when Indonesia gained its independence in 1945, the practical authority of tin management changed. The Dutch did try to regain control of these two regions, including their trade organisations, but this was impossible because of the newly independent Indonesia's nationalisation policy. However, its management has been centralised since 1945. During the Old (1945-1965) and New (1966-1998) Orders, the state in accordance with national interests has been regulating tin based on the nomenclature of national strategic commodities (Susilo & Maemunah, 2009). The implication of the phrase 'strategic commodity' is that mining of the mineral is regulated, managed and controlled by the state. It also means that the local community does not have access to this commodity for hundreds of years

until 1998. In addition, from 1945 to 1998, the regional government received only a portion of royalties from provinces.

The change of regime in Jakarta in 1998 altered government policy from centralisation to decentralisation. Tin could be maintained as the country's strategic commodity as long as it is legalized by the central government. However, based on the Decree of Trade Minister No. 558/1998, tin is considered a non-strategic commodity because it is no longer regulated, sustained and controlled by the State, but rather by the local inhabitants and elites. The Bangka Regent through the Regional Regulation (Perda) No. 6 of 2001 concerning the General Management of Mining officially provides an opportunity for local communities to mine assuming they paid royalties. This resulted in flexible mining activities everywhere, including legal and illegal schemes despite the insignificant revenue that they earned. Approximately 80% of people in Bangka island which comprises the regencies of central, West and South Bangka after division benefited from this policy. Consequently, massive mining activities were carried out in every nook and cranny of the island.

In the past 20 years, descriptions of tin mining did not include the role of the local community. Decentralisation led to certain significant changes namely the emergence of flexible mining activities, the development of tin trading companies, investment flow and expanding mining opportunities. However, there were negative impacts on the environment (Muslih *et al.*, 2014; Siringoringo & Hadi, 2015; Sari & Rosalina, 2016; Nurtjahya *et al.*, 2017; Ramadona *et al.*, 2020), moral decadence (Rendy, 2017), increase in child labour (crime or distrust among themselves) as noted by Pratama (2018), and also chaotic tin mining management and governance (Ibrahim *et al.*, 2018). Haryadi (2015b) reported that tin governance in the New Order era was marked by the centralisation of regulation and state and local government monopolies, while the local community were mere spectators. On the contrary, the Reformation era is characterised by decentralised, regional

monopolies as well as the involvement of the local community. The state is not involved, but Erman (2007) reported the emergence of local shadow players in controlling tin governance and commerce. In this case, the local shadow state is synonymous with governance and marked by a conspiracy between various parties. There was massive tin smuggling at the beginning of the Reformation, which continued in different variations periodically. Furthermore, mining permits were often bartered for political support in regional elections, and the strong influence of investors in the regulation of mining indicated that political corruption is rampant in natural resource management in this area. According to Batterbury (2018), there are many ecological activists who pay attention to these forces in society, to determine strengths and how they act.

The extraction of tin resources in this archipelago is still marked by illegal mining on land and at sea. In fact, there is a recent increase in sea mining along with the discovery of modifications to illegal mining equipment that can be operated more easily at lower cost. On land, mining continues in watershed areas, changing vast landscapes into *camuy* holes (former tin excavation ponds). The proliferation of offshore production suction vessels by larger companies has also contributed to massive environmental damage. The liberalisation of tin mining has led to severe ecological damage, both on land and in the oceans. This is followed by an inability to protect the ecology due to the frequent occurrence of the dig and transport principle. In the long-term, tin mining is very destructive to the environment, because it reduces plantation land, leads to changes in landscapes due to the excavation of land, forest destruction, and habitat destruction in coastal areas, sea, and watersheds. The long-term effects are made worse by the short-term perspectives of policymakers, who don't see ecology as a long-term link in the life chain of organisms. The neglect of law enforcement agencies and overlapping regulations that are difficult to implement are important questions that the local community have asked.

Interestingly, the community is aware of the dangers of mining. Ibrahim *et al.* (2019), reported that awareness has been raised of the risks of environmental damage in the future and its resolution. Rosyida and Sasaoka (2018) stated that the fishermen were not in support of offshore mining, however, the political decision-making system makes it impossible for them to influence certain policies. On the contrary, it is also believed that the elites benefit from tin mining (Rosyida *et al.*, 2018), making it difficult to change the status quo.

However, a certain law intended to limit tin mining has been enacted and enforced by the state, but it was seen as eroding the power of local authorities, and this led to the division of the elites in Bangka Belitung. Irrespective of this fact, tin is an unregulated commodity.

Fundamental alterations to regulations have led to significant changes to tin mining in Bangka Belitung, with broad implications on governance, access of ordinary people to mines, large and small tin traders, economic instability in society due to fluctuations in the price of tin on the international market, weak law enforcement, and dependence on the tin economy. This tug-of-war between the central and local governments has sustained the environmental crisis resulting from tin mining. The result of poorly managed tin mining is a political-ecological bias that is not properly managed. This neglect encourages the status quo that is awash in problems but is not easy to map. The state, society, traders, officials, and environmental activists share different views, however, this study maps how the elite views the chaos of tin mining management in Bangka and Belitung Islands. As the main tin-producing region in Indonesia and Southeast Asia (Sujitno, 2007; Heidhues, 2008), the historical and existing conditions of tin extraction in Bangka Belitung are almost a portrait of Indonesian tin mining governance.

Research Methods

This quantitative research uses surveys to determine how local stakeholders view the governance of tin mining in Bangka Belitung.

Elites are understood as groups that determine and influence local governance, as well as have authority and power (Haryanto, 2009; Damele & Campos, 2022). Wedel (2017) says that elites are influential because of their flexibility, informality, mobility and connectivity. Stakeholder perspectives are subjective because apart from varying expectations on an issue, they are also often influenced by interests. Therefore, the selection of elites for this study is intended to get a picture of the views of groups that represent their respective communities. Understanding the views of elites means understanding the views of the wider community, provided that the elites who become respondents must be those who are spread across many interest groups. In an environment of widespread patronage politics, the position of the elite tends to become the face of the wider public (Shin, 2015; Aspinall & As'ad, 2015; Aspinall & Berenschot, 2019; Cahyati & Lopo, 2019). Furthermore, in quantitative studies, objective answers are obtained because the same questions are asked to all respondents.

This research measured the views of elite respondents who initiate, deliberate and implement policies and are therefore defined as those that establish rules (Moyser & Wagstaffe, 1987). Assuming, the relation between the elites and non-elites is in a pyramidal form, the elites are usually placed at the top and are smaller in number, while the non-elites constitute the majority and are placed below closer to the wider base. Though the elites are small in number, they play a large role in the implementation of decisions that affect the general public. Indeed, one of the challenges of studying elites methodologically, according to Semenova (2017), is how to identify elites and their populations because according to Davis and Williams (2017), elite positions are very complex (see also Froud, 2017; Davies, 2017). Therefore, this study distinguishes between elites and actors, where elites are assumed to be the respondents of the research while actors are appointed by those involved in various tin mining activities. In this context, elites are individuals who are involved in decision making

and they also act as determinants because they have direct contact with the tin industry in Bangka Belitung. They are divided into two categories, namely the governmental and non-governmental elites.

The governmental elites are those involved in formal decision-making, namely the Regional Secretary, the bureaucracy leader of the local government unit, the Energy and Mineral Resources Office, the Regional Development Planning Agency, the Environmental Service, and elected office-bearers, for example, members of the Regional House of Representatives. The non-governmental elites are journalists, Non-Governmental Organisations (NGOs) engaged in both environmental and non-environmental activities, Tin Entrepreneurs, academics, and village officials in mining regions. Therefore, 11 elite categories based on their role and relation with tin mining were determined in this research. However, the choices made in this research are not practical because the elites disagreed and had competing interests. This study provides an overview of the options that are available for quantitative mining governance.

The elite categories were selected based on their direct or indirect ties with the exploitation of tin. In this study, a quantitative model was designed based on data collection and survey with closed-ended questions. Additionally, certain options were stated in the questionnaire. Descriptive analysis was used to present the data. There were 119 respondents divided into:

Table 1: Category of respondents and Number

Category of Respondents	Number
Governmental elites	35
Non-governmental elites	84

They were randomly selected from all regions in Bangka Belitung Islands, which comprise six districts (Bangka, Central, South, and West Bangka, as well as Belitung, and East Belitung), one city (Pangkal Pinang City), and one provincial government (Provincial Government of Bangka Belitung Island). The study was carried out from 2019 to 2020.

There were five primary focus questions:

1. Choice of governance
2. Choice of primary policy controllers
3. Ecological responsibility choices
4. Ideological choices
5. Self-involvement choices

For each focus question, the authors provided three suggestions with three options for the respondents to choose from. The selection of these five focus questions deviates from the debate on the importance of governance in tin extraction in Bangka Belitung. This study aims to report the various perspectives of the elites concerning the governance of tin mining. Therefore, based on the first question, it is important to inquire about the principal supervisor of the tin mining policy in an area, because it relates to overlapping authority in the enforcement of regulations. Furthermore, it is essential to explore the elites' views on environmental damage and those responsible for its management, because the rapid increase of tin mining in the past two decades led to this. It was discovered that the elites often disagreed with each other, as well as with other tin mining actors. The fourth and fifth questions are designed to determine the elite's stance in the centre of the ongoing status quo of tin mining.

The data collected were analysed using descriptive analysis, in which the frequency, percentage and distribution of respondents' answers were obtained. The results are then presented in graphical form. The use of this percentage is in order to show the main tendency of the respondent's ideal choice of governance of tin mining in the Bangka Belitung Islands.

Results: Elite Perspectives

Tin Governance and Policy Controls

Tin management in Bangka Belitung has changed dramatically since the democratic Reformation era started in 1998, after the collapse of the New Order. Tin management was under the control of the state during the Old Order (1945-1965), and its extraction was carried out by PT. Bangka Tin Mining that

was later converted to Banka Tin Winning (BTW). However, during the New Order period (1966-1998), it was regulated by the state through Law No. 11/1967 or the Basic Mining Provisions. In accordance with this regulation, tin was perceived as a strategic commodity in the country and was managed, regulated, and supervised by the state. The implication was that only nations have the right to issue mining permits, while the local communities including all groups are not authorised to take part in any form of extraction. However, inhabitants can get the authorization of the minister to extract these strategic minerals.

In 1998, this status was revoked as it was felt that the region needed to manage the extraction of tin in accordance with local regulations. Law No. 22 of 1999 concerning the Regional Government states that local authorities regulate all policies not implemented by the central government. This law empowers regional authorities to issue local decrees in the form of Regional Regulations that allow the local community to mine for tin. Therefore, mining is not entirely a government issue. The Bangka Regency government issued Regional Regulation No. 6 of 2001 to allow local communities to apply for mining permits. This caused people to flock to mining as well as the proliferation of private tin drilling, and smelting companies. The state company, PT. Timah Tbk, private establishments, and illegal community miner, referred to as Unconventional Miners (UM), are the main actors in tin mining.

The central government has issued several regulations since the decentralisation tin mining, including the ban on the exportation of its ore to other regions or abroad. Law No. 4 of 2009 concerning Minerals and Natural Resources, Regional Regulations, and several laws or decrees that limit the extraction of tin and its environmentally unfriendly impact. The mining area for the state and private companies is calculated in terms of area and production as stated in their license (Supriadi *et al.*, 2016). However, illegal miners are not considered because of the difficulty in ascertaining their

actual numbers. This led to the following research question, the extent or degree of tin management and the suitable actor to be the main controller? However, the question of tin management is abandoned due to the fact that presently it is a non-strategic commodity. On the contrary, there are quite a lot of regulations limiting mining activities, however, little or no attention has been paid towards their implementation. Nevertheless, the enforcement of various policies is neglected, such as the prohibition on mining in watersheds and protected forest areas. Furthermore, local governments keep issuing permits to private establishments, including for offshore mining in coastal areas where some of the residents were forced to relocate (Ibrahim *et al.*, 2018).

The main controller of mining activities was not clear due to the fact that both the regional and central governments tend to disregard certain responsibilities. In addition, mining licenses for state companies are authorised by the central government, while permits for private firms are issued by the local governments. Nevertheless, no individual was responsible for overseeing community mining. The people adhere to simple practices, namely visit, dig, and leave whenever government officials raid such areas. This led to the emergence of some research questions concerning the recent management model that needs to be implemented by the government. Three principal questions with three options each are provided. The survey data is shown in Table 2.

Based on Table 2, the third option is the elites' preferred choice concerning the regulation of tin. The question of maintaining current conditions and the moratorium on licensing was not selected by the elite. Approximately 32% of the elite preferred to completely change national tin policy. This indicates that the respondents feel that the central and regional governments need to take comprehensive steps to change the current policy. The present practice of three principal actors taking part in tin mining is considered problematic and needs to be changed nationally. Therefore, the central government

Table 2: Tin management model choices

No.	Decision	Options	Percentage Answer
1	Maintaining current conditions	a. Everyone has the right to benefit from tin	7
		b. Tin is plentiful, and it has not been exhausted in Bangka Belitung	12
		c. Mining activities and advancement are ongoing, although, they are insignificant	5
2	Carrying out a moratorium on licensing with the following options	a. Specifically for large mining companies	1
		b. Large and medium	7
		c. Small and unlicensed firms only	0
3	Restructuring	a. Prohibiting illegal mining and carrying out large-scale raids on violators	22
		b. Stabilise the operation and production of large mine companies	14
		c. Completely changing the tin policy nationally	32

Source: Primary Data, 2019

must adopt policies that have an impact on these regions. The prohibition on illegal mining and large-scale raids is the second most selected option. This finding indicates that illegal mining is prevalent in the area.

In order to determine the ideal controllers in the midst of overlapping regulations and their impacts, certain research questions were proposed as indicated in Table 3. It is important to identify the person or individuals in charge because the discovery of tin in these region, is regulated by the central government. This led to the emergence of these three principal options. The respondents' answers are reported in Table 3.

According to the data in Table 3, the elites prefer that there be a balance between the central and regional governments in terms of regulating tin mining. The most widely selected choice is to grant trading authority to the central government, while the production process is regulated by regional authorities. Furthermore, 24% of the respondents reported that the central government needs to limit its intervention in the production process. Initially, the central government monitors and controls all regulations, from production to trading,

while the regional authorities have limited powers on the issuance of licenses to medium and small private companies. However, the local governments usually have to deal with the consequences of mining, ranging from environmental damage, social impacts and economic instability due to fluctuations in tin prices on the international market.

Based on this table, the second most selected choice is the desire for the local government to be given absolute authority over tin mining policies. Approximately 19% of respondents chose the option which stated that the regional authority is in charge of managing technical and operational matters including areas used for mining, while the central government regulates general issues.

Ecological Responsibility

Environmental damage is the most significant impact of excessive mining. Mining has been going on for hundreds of years since the Dutch, British and Japanese colonialism. However, during the Old and New Order eras that tin has been freely mined, especially in the last two decades, it was believed that environmental impacts had been manageable. Ibrahim *et al.*

Table 3: The main controller of tin policy choices

No.	Decision	Options	Percentage Answer
1	The central government	a. Acknowledge tin as a strategic commodity	4
		b. Completely regulates, and authorises its production and exportation	3
		c. Regulate the sharing of profits, when there is an overflow	8
		a. They need to be in charge of regulating tin because it is a regional asset	8
2	Local government	b. The central government is in charge of regulating general issues, while specific mining matters are regulated by the local governments	19
		c. The issuing of licenses need to be handled by the regional government	11
3	There needs to be a balance between the central and regional governments	a. The central government needs to regulate the activities of large companies, while small companies are regulated by regional government	12
		b. The central government tends to regulates areas approximately 12 miles from the shore, under regional authority	11
		c. The central government regulates trading, while the regions regulate production	24

Source: Primary Data, 2019

(2019), stated that assuming that mining in the past century caused environmental damages due to the utilisation of simple technology, such as digging trenches and pits and water drainage techniques using river flows, activities carried out since 1998 tended to be more destructive due to the powerful technology in use. The use of suction vessels to extract tin ore was replaced by offshore extraction using dredging machines. Other methods used included spraying using large pipe machines, sucking tin sand offshore, and the use of huge excavators.

The environmental damage is also felt in restricted areas, such as watersheds, protected forests, public and governmental spaces, including areas in prohibited zones. The Exploration Business Permit (IUP) land in the possession of big companies is mined not only by the owners, but also by other parties willing to partner with them and immediate payments is made. Mining is freely carried out by the

people as long as there are no strict restrictions. Environmental damage always occurs rapidly, possibly due to the absence of strict controls on illegal mining.

Furthermore, the impact of tin mining on land formally possessed by PT. Timah Tbk, an internationally known company owned by the central government, is chiefly responsible for environmental damage to the area. However, it is difficult to identify the environmental damage caused by private companies and illegal miners. This led to the emergence of another question, is it possible to prohibit illegal tin mining by halting the business chain initiated by them? It is undoubtedly impossible. Illegal miners sell their produce to middlemen, which in turn sell to smelter companies. However, smelter establishments are unable to directly sell their products abroad so instead they sell to PT. Timah, Tbk. This illustrates the several intricate issues of environmental responsibility.

Presently, environmental damage caused by tin mining is easily discovered in Bangka Belitung region. They include former mining pits enlarged by soil erosion, destruction of plantations (Asmarhansyah *et al.*, 2017) and green forest areas, ruined watersheds, increased area of barren land (Agus *et al.*, 2017; Pratiwi *et al.*, 2020), changes in the landscape (Yuarsah *et al.*, 2017), destruction of marine biota, and increased water pollution (Kurniawan *et al.*, 2019). Sukarman and Gani (2017) mapped the extent of environmental damages at an ex-mined zone and pits with areas of approximately 45,675 and 3,160 hectares, respectively, on Belitung Island. Excessive open mining at the coastal areas and offshore also results in damage to the waters off Belitung. Friends of Earth (2012) stated seven impacts of tin mining on land and sea. Damages include water pollution, accidents, loss of soil fertility, difficulty in cultivating crops on lands formerly used for such activities, changing of landscape, limited environmental restoration, lack of job security, destruction of coral reefs and mangroves on the coast, as well as disruption of marine habitats. Nurdin (2019) reported that fishermen’s catch has decreased by 80% in the past three years. Haryadi (2018) carried out a research on Belitung Island and

discovered several problems, including the neglect of recycling by the companies, half-hearted restoration, land conflicts in ex-mining zones, insignificant reclamation partnerships, the persistent issue of illegal mining, and poor supervision.

This study stated important questions concerning the ideal body responsible for environmental damage. Three main choices were prepared by the author. The following is a table of the respondents’ answers.

Table 4 shows that the majority of respondents believe that the ecological responsibilities need to be shared between the government and mining companies. 22% of respondents stated that the central and regional governments, as well as large companies, need to be responsible for environmental damages, 19% believe mining companies have a huge impact on the environment and should be responsible. Only a few respondents want the responsibility to be taken up by the community miners. It is safe to assume that at the rate of environmental damage observed, the mining chain is under the control of illegal miners. Although it also relates to the flexible policies initiated by the government in addition to the

Table 4: Ecological responsibility choices

No.	Decision	Options	Percentage Answer
1	Government responsibility	a. The central government	7
		b. Regional government	9
		c. Responsibilities need to be shared between both parties	22
2	Mining company responsibilities	a. Big mining companies excessively damage the environment, therefore it’s time for them to take up the role	19
		b. Big mining companies make more profits	8
		c. Big companies have been negligent in carrying out their obligations, and need to be responsible	22
3	Responsibilities of community miners	a. Most of the community miners are not environmentally friendly	4
		b. The people are not responsible for the environment, they only want profit	7
		c. The community miners are at an advantage, they make no payment to the government	2

Source: Primary Data, 2019

links with big companies that accommodate illegal mining, trade chain, the community land which is included in the mining permit.

Ideological Position and Choice of Self-Involvement

It is assumed that the elites have a decisive position, however, some questions concerning the ideological stance of the respondents were asked. in a bid to determine their perspective on tin mining. The elites in Bangka Belitung are divided into two, those who want a fundamental change in the implementation and enforcement of tin mining regulations, and those who believe that the current policy needs to be maintained. The elites who prefer fundamental change to the industry desire to be in charge and they applied various strategies to achieve their goals, such as social media criticism, direct protest, and occasional demonstrations. Several studies and intensive discussions have reported concerns about the mining process, however, this particular group tends to enforce their decisions and choices. Journalism and non-governmental organisation reports about the damage caused by tin mining are often analysed. Meanwhile, those who agree with the current condition

continue to perceive tin as a supporting sector of the community economy. Several studies have found that the mining of tin does boost the community’s economic growth (Purnaweni *et al.*, 2019) and has led to the development of new social classes (Rosyida *et al.*, 2019; Sulista, 2019). Based on data from the Central Statistics Agency (BPS) (2019), it was discovered that some of these groups constitute actors and partners associated with tin extraction, in addition, some of them are bureaucrats and politicians that authorise mining licenses and rely on the community for political support.

It is therefore essential to ascertain their ideological choices because they deviate from the assumption of their perspective on the current situation. The authors stated three principal choices in the survey. The responses of the respondents are shown in Table 5.

According to Table 5, the main concern of the respondents is sustainability. Approximately 34% of respondents feel there is a need to consider this issue, because it also cuts across the assumption that some elite in Bangka Belitung is realistic about the present existence and condition of mining activities. Meanwhile, 21% of the respondents prefer the local government to

Table 5: Ideological view choices

No.	Decision	Options	Percentage Answer
1	Business aggression need not be hindered, there is need to participate	a. Jointly owned tin ore needs to be equally shared	8
		b. The local people need to be the highest benefactors of tin in the region	9
		c. The need to utilise the existence of tin	2
2	The government takes on multiple roles	a. The state needs to take control of tin management for the benefit of national development	8
		b. Profits from tin need to be channelled to local governments for development	21
		c. The central and regional governments need to be beneficiaries, in the nation that regulates it	8
3	Sustainability	a. Precautionary principles need to be applied in order to sustain reserves for future generations	34
		b. Restrict exportation	5
		c. Permits have to be restricted in order to limit production	5

Source: Primary Data, 2019

manage the profits. The results from this analysis are consistent with previous studies which stated that the central government paid less attention to the welfare and conditions of the locals and this led to a sort of historical resentment which was reported by Sujitno (2007) concerning flexible regulations.

Furthermore, it is also deemed important to determine the elites' choices considering the ongoing discourse on mining. As previously stated, there is a significant gap between the groups that desire the continuation of current mining conditions due to their high dependence on revenue from the tin and those that desire fundamental changes.

This survey presented three main choices concerning the involvement and choice of the elites. The results from the survey are stated in the as shown in Table 6.

The graph in Table 6 shows that the majority of the respondents prefer to carry out proactive measures in the current tin mining discourse. 62% of the respondents stated the need to neutrally offer input to the various parties thereby considering the positive and negative impacts of tin mining. The second alternative is the provision of information as reported in the active category.

Discussion

Perspective and Consolidation Opportunity

Some perspectives of the elites merit further discussion. The first is related to ideal governance in tin management in Indonesia, which is expected to be changed. The elites consider it necessary to change national policy to reduce people's resistance.

The research question is associated with how the elites have to consolidate power to change the format of governance, which can be carried out by bottom-up or top-down models. From the bottom up, the elites consolidate power to encourage the central government to enact new policies, while from the top down, the central government directly take policies oriented to new governance on tin mining. In conclusion, regulatory changes are needed to bind all parties, but strengthening the perspective of elites is difficult.

In general, the elites find it difficult to restructure tin mining with environmental improvements or by returning tin status as a national strategic commodity. This difficulty tends to increase the uncertainty in tin mining and the ecological implications both now and in the future. Furthermore, there are other factors that need to be debated assuming the elite try

Table 6: Choice of self-involvement

No.	Decision	Options	Percentage Answer
1	Passive	a. A lot of people benefit from this mineral, let it go	2
		b. There is no point dealing directly with it, just abandon it	4
		c. Not directly affected, let it be	1
2	Active	a. Actively tend to defend the importance of tin mining	4
		b. Actively oppose mining activities due to its destructive consequences	9
		c. Provide information when necessary	15
3	Proactive	a. Conflicts to support the current situations	0
		b. Contending with non-governmental organisations to eradicate the mining of tin	3
		c. Neutrally providing input to the various parties in order to consider the positive and negative impacts of mining activities	62

Source: Primary Data, 2019

to consolidate power, namely the intersection of interests between financiers, the government, and CSOs regarding tin minerals that are predicted to be more promising compared to the mined tin for hundreds of years (Permana *et al.*, 2018; Putra & Sobirin, 2018).

The second is related to the mechanism to control policies. During this time, the tug-of-war between the interests of the regional government, miners, investors, state-private companies, and supporting anti-mining activists is associated with production and trade. This clash of interests is influenced by actors who take advantage of this process due to the difficulty of establishing a common ground with the competition for resources. Public and private representatives of tin business, tend to seek regulatory loopholes that benefit them. Political corruption in the form of policy intervention, both in the context of changing regulations at the central level and granting mining permits as concessions at the local level is strongly suspected of creating opportunities for the neglected status quo. The respondents in this study were generally aware of the condition of natural resource contestation among the tin actors. However, they stated that it is necessary to divide the licensing authority in order to balance the status quo.

The elites are able to determine the ability of the central government to regulate only trade, while the production process needs to be under the regional authority. Irawan *et al.* (2014) stated that the authority of the for central and regional governments overlap, therefore it was important central, regional and law enforcement agencies to cooperate. Conversely, the local government has the authority to issue permits to private companies that meet the conditions. However, the central government regulates the management trade, by limiting the level of tin exports. Moreover, smuggling and game manipulation became inevitable, as law enforcement is not effective in illegal mining (Haryadi, 2019). This is in addition to capitalists from outside Bangka Belitung complicating the tin market. By authorising regions to regulate the production process, independence

and comprehensive responsibilities are achieved rather than grouping the authorities to complicate each other. Regulations are carried out on ecological responsibilities to regulate reclamation provisions, amid the dynamics of environmental management which are very difficult to overcome. During this time, the regional government did not have the authority to permit tin mining, despite having the most impact. Therefore, encouraging the production processes and proper trade management are the authority of the regional and central governments, respectively.

This study also illustrates that most elites do not place ecological errors as the responsibility of illegal miners. According to Stocklin-Weinberg *et al.* (2017) environmental rehabilitation was not carried out by illegal miners. Therefore, instead of blaming illegal miners, the elite feels that ecological responsibility needs to be shared between the central and regional governments, and tin mining companies. Damages associated with mining activities saw a sharp increase over the last 20 years due to increased illegal mining. Therefore, it is important to note that the existence of illegal tin miners impacts policies. Haryadi *et al.* (2018) study's proposed the integrated law enforcement in managing environmental rehabilitation.

Illegal miners arise due to regulatory loopholes, including when local governments allow the tin to be mined freely. It also occurs due to the existence of the tin trade chain that facilitates the easy sale of tin through collectors and private smelters (Haryadi, 2015a). This activity also tends to occur in regions with inadequate law enforcement and continues when lands with IUP are controlled by large companies.

Ecological responsibility needs to become a heavy burden on the central and regional governments, as well as companies. Conversely, it is impossible to realize the mechanism that allows illegal miners to be responsible for environmental damage when all the gaps are still available, despite the enormous damage (Aspinall, 2001). The elite are correct that

ecological damage is associated with illegal miners, this is followed by encouraging the three elements above to be synergized in encouraging environmental improvement. The central government does not seem to have any vision to save the environment, while local governments and large companies tend to be amenable to coercion by the central government. However, when this activity fails, it is certain that local people will bear the ecological consequences of tin mining with little profit. Maia *et al.* (2019) stated that the central government and international parties need to be involved in sustainable environmental management.

In fact, the survey results of this study show that the elite are adequately aware that sustainable development is important in future. However, the author is rather doubtful that the perspective is realized when the elite chooses a neutral path to explain the position of Bangka Belitung in the tin mining discourse. Therefore, the elites have difficulty consolidating the same perspective regarding expectations of changes in governance, policy control, and ecological responsibilities. Their consolidation opportunity scheme is projected as follows:

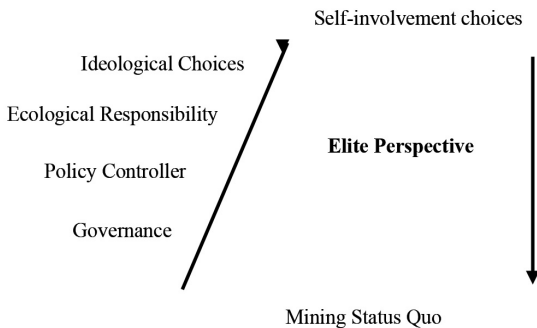


Figure 1: Projection of elite consolidation opportunities

Figure 1 illustrates that the elite consolidation is difficult to realize, despite having a similar perspective. Of the five main variables in elite attitudes, namely ideological choice, ecological responsibility, policy control, mining governance, and self-involvement, the variables of ideological choice, ecological

responsibility, policy control, and mining governance were utilised. However, on the variable of self-involvement, they chose to be neutral, therefore, there was no opportunity for the movement to encourage changes using the same perspective. Aside from the intersection of interests between elites that cross each other due to interest diversity, the choice of involvement also makes it more possible to create a sustainable status quo condition. The authors believe that there is no bottom-up by the elite proactively by making a firm consolidation effort. Therefore, the change options according to the views of the elite remain the same. However, assuming the central elite decides to adopt top-down policy interventions, a change becomes moderate among the elite.

If we see that it is difficult for policy change to consolidate from an elite point of view, it is very likely that at the practical level, the policy will be difficult to change. This means that the existing conditions of unrestrained tin mining resulting in extensive environmental damage will continue. Lane and Ersson (1994) say that economic policy is largely determined by political policy, meaning that as long as the elite’s point of view cannot be as assertive as this study shows, policy change will also be difficult to make. This of course starts with a perspective that is not firm in changing policy.

Barma *et al.* (2012) said that weak environmental governance will lead to dependence on resources, and high dependence will cause governance failure. Partnership and collaboration are the keywords. This study shows that differences in choices between elites in viewing ideal tin management without a firm position continue to be the cause of dependency on current conditions.

Conclusion

The elites in Bangka Belitung preferred the last option from the three presented, namely: Maintaining current conditions, carrying out a mining moratorium, and re-structuring the distribution of authority in tin mining. In addition, they considered it necessary to

change the national tin policy, while stating that there is something wrong with the current conditions, especially related to regulation. The elites also stated the importance of regulating tin policy between the central and regional governments. The choice expected by the elite is the division of authority between trade and production. This is because they stated that the central government needs to regulate the sale of tin, while the regions regulate its production. Related to ecological responsibilities, the elites believe that the responsibility is with the governments and large companies, while a few chose community miners. However, they all have a similar view regarding the importance of collaboration between the central and regional governments, therefore, large companies need to be diligent in carrying out their obligations. Meanwhile, related to ideological choices, the elite in Bangka Belitung view the principle of sustainability as the most important thing. Elites regard the choice to be pragmatic by utilizing the available wealth or submit full regulatory policies to the state. Instead, they considered the fact that tin needs to be mined carefully for the next generation. Regarding actions, the pro-active choice was chosen by most elites by neutrally informing the various parties on the good and the bad impacts of mining compared to the option.

The study also found that there were different views on several issues related to the government and non-government views of Elites on Bangka and Belitung Islands. However, they had a similar view on the issues of governance, policy control, and self-involvement. The two elites agree on changing the national tin policy, and giving sales and production regulatory authority to the central government and regions, respectively. It also provides neutral input to various parties as to the main choice. However, the elites in these two regions viewed that ecological responsibility needs to be divided between the central and local governments, and large companies. Despite some common views, the elites in Belitung and Bangka diverge on some issues. In terms of ideological choices, both groups of elites believe mining should be

carried out prudently, but elites in Bangka saw the importance of returning profits to the local government while those in Belitung stated that it is important to restrict tin mining permits.

Differences in views also occur between government and non-government elites on the issue of ecological responsibility, although they have similar views on governance, policy control, ideological choices, and self-involvement. Government elites view ecological responsibility as the role of the central and regional governments, while the non-government elite views believe that large companies are responsible. Interestingly, these two elites assume that large companies are the most destructive and need to take on more ecological responsibilities.

According to the authors' perspective, the interest and diversity among the elite, tend to complicate attempts to change the status quo. The expectations of the elite block their ability to choose a neutral path to encourage changes in tin governance, despite realising the importance of change. It is difficult to imagine the firm resistance of local elites in the political and policy implementation. This condition prolongs the fact that the country represented by the central government seems to have failed to protect a non-renewable natural resource, while at the same time failing to protect nature from damage due to the expansion of mining.

This study provides information that the opportunity for consolidation between actors to improve this condition is still open on the condition that all parties want to be involved together. The fact is that this study found that all parties are very concerned about environmental damage caused by mining, but at the same time expect the state to play an important role. Collaboration between central and local governments, and tin mining companies is needed. However, the challenge of consolidation still seems to be faced with the fact that some local elites decide to take a neutral position between the available options. As cited in Batterbury (2015; 2018), Benjaminsen (2015), and Holifield (2015), environmental

marginalisation as a central theme of political ecology will continue to occur if the parties in the environmental extraction process do not play a joint role.

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