THE INCONSISTENCE OF PERCEPTIONS AND ATTITUDES OF COMMUNITY TOWARDS THE TRANSITION FROM TIN MINING TO TOURISM IN BANGKA ISLAND, INDONESIA

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Abstract: An economy founded on natural resource extraction usually presents problems to the environment but tourism development requires the conditions of the natural environment. Meanwhile, the transition from the dependence of Bangka Island on tin mining to tourism is observed to be experiencing fundamental challenges due to the main interest of the community in tin. The aim of this research is to explore the perceptions and attitudes of the Bangka Island community concerning the transition process using descriptive quantitative method by Likert scale. The results showed the community considers tin mining as a sector with high potential and activity despite its harmful effect on the environment and future generations. The people also realize their community is rich in nature-based tourism potential as well as the efforts of the government in its development but mining is observed to still be dominant in the area. Moreover, the two sectors were discovered to be operational in the community including the illegal mining activities. These findings concluded the community is inconsistent in its development approach as indicated by its efforts towards tourism as well as the simultaneous tolerance for tin mining even though it is clear both sectors cannot work together.

Key words: inconsistency, transition, tin mining, tourism, Bangka

INTRODUCTION

Bangka Island is known as one of the archipelagic areas with abundant deposits of tin resources. It contains white tin (stannum) also known as Banka-Tin which is one of the resources with high quality being demanded in the international market (Shrestha, 2018). This makes tin mining an important economic resource for the Bangka Island community for the last two decades, especially after the reform era which led to the decentralization regime in Indonesia in 1998. Recent data showed the country is the second-largest producer of tin in the world after China with 25% of production (Vasters and Franken, 2020), and approximately 90 percent of which is obtained from the Bangka Belitung Islands.

It is, however, important to note that the exploitation of these abundant natural resources, especially tin, has so far caused massive environmental damage (Ibrahim et al., 2019, 2018; Futaeasu, 2019; Erman, 2014; Susilo and Maemunah, 2009). This is associated with the characteristics of mining which tend to be exploitative and destructive. Not surprisingly, tin mining activities are reported to have caused major social, economic, and ecological consequences over the last two decades (Sibarani, 2017; Mensah, 2014). Bangka Island also has attractive natural destinations and very beautiful beaches which makes it a destination for both domestic and foreign tourists apart from being a tin mining area (Sulista et al., 2019).

This is observed for the existence of approximately 1,200 KM of coastline with white sand as estimated by the Bangka Belitung Environment Office (2019). Therefore, the current position and status quo of the community as a mining area as well as the efforts geared towards developing tourism have become separate paradoxes related to its socio-economic landscape. Tin mining is one of the current means of livelihood for the community but the government is observed to be making efforts towards boosting the tourism sector. The regulations have been arranged in the form of Regional Regulations (Perda) of the Master Plan for Tourism Development and included in the Regional Medium- and Long-Term Development Plans (RPJMD and RPJPD). Moreover, the efforts to encourage a more diversified economy to ensure inclusive development are needed as an economic alternative for the future (Turok and Visagie, 2018). This is, however, difficult to achieve due to the conflicts of interest between both sectors considering the fact that no type of mining is environmentally friendly while the tourism sector relies on a clean and healthy natural environment. Furthermore, Ibrahim et al. (2019) studied the perception of tourists visiting Bangka Island and found that one of the respondents showed the community’s damaged nature is a bad value for tourism. There has been significant growth in tourist visits to Bangka Island in the last few years as observed from the hotel occupancy rate and the number of foreign tourist visits (BPS Bangka

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http://gtg.webhost.uoradea.ro/
Belitung, 2021). It was also discovered that new hotels are being developed and this shows the fundamental potential of tourism to support the community’s local economy. Moreover, the Bangka Island has been popular with the jargon ‘Laskar Pelangi’ but the intensive guidance and assistance for its development through the Culture and Tourism Office of each regional government unit are not enough. The intersection between mining and tourism creates a contradiction in the socio-economic interactions of local communities. This is observed from the fact that tin has a very tempting economic benefit which cannot be abandoned by most of the actors in the industry. Meanwhile, it also presents a threat of environmental degradation and damage to forest and marine ecosystems, thereby, leading to the reduction in the sustainability of the main economy, especially for the pepper and rubber farmers as well as fishermen. Moreover, the plantation and marine sectors are decreasing due to the expansion of mining to the land and sea instead of its discontinuance.

Ibrahim et al. (2019) showed that the majority of regional tourist destinations in Bangka Island are mostly preferred by visitors from outside the region due to their natural attractions. These include the long coastlines with white sand and interesting small islands which are observed to be the favorite tourist spots recently being targeted for development. This research, therefore, comprehensively explores the attitude of the community in positioning the choice between both sectors. Mines already exist and supply the local economic needs while tourism is currently being targeted as an alternative economic source which is paradoxical to mining. The present problem is the fact that the status quo has been operating for a while with the hope of a change in the way nature is being treated while maintaining the environment. Moreover, the perceptions and desires of the community to the economic transformation from mining to tourism is the focus of this research and this is necessary to understand how mining and tourism can both be run to strengthen the local economy.

**TIN ECONOMIC TRAP**

Tin has been continuously exploited in Bangka Island for approximately 400 years with the trend reported to be increasingly massive over the last 20 years, thereby, causing several changes in the social, economic, and environmental landscape, both on land and sea (Erman, 2010; Sulista et al., 2018, 2019; Pratama, 2018). This was observed to be triggered by the changes in regulations which allow the community to mine freely and illegally basically due to the fact that the government has never issued permits for free tin mining. The large number of tin reserves which are easy to locate also allows the exploiters to mine without being caught, thereby, making it an unlicensed work but the main source of income for most of the residents. The change was due to the decentralization system implemented in Indonesia in 1998 which led to more regional autonomy. According to Megawandi (2020), the tin mining sector contributed 10.59% to the Gross Regional Domestic Product (GRDP) of the country in 2017 but received gains from the industrial sector which had 20.63% of its companies focusing on tin processing. Tin mining is an extractive economy with a capitalistic, destructive, and exploitative character (Erman, 2008; Ibrahim, 2016). It also encourages miners and entrepreneurs to continue expanding their land in addition to the process of digging and causing changes to the landscape. This was observed by Veltmeyer (2014) to have happened in Latin America and the process was called reprimarization based on the sustainable exploitation of the abundant extractive resources which is used as the main commodity for a country's economic growth. This, therefore, explains how areas with rich natural resources are always the target of capitalists, thereby, leading to prolonged problems for the local community (see also Pellegrini et al., 2020). This means there is a capital accumulation practice which causes ecological damage and triggers social inequality and this is discovered to be the reason several third world countries with rich and abundant extractive resources are caught in a trap (Acosta, 2021; Gudynas, 2010; Nugraha and Purwanta, 2020).

The efforts to encourage the transformation from mining to tourism have become a complicated issue due to the inability of the government to take a firm stance towards abandoning mining. This means the tin economy trap exists even though the graph is experiencing a decline. This research points out that the regional government is indecisive in its effort to encourage the tourism industry due to the profitability of tin mining. Moreover, Regional Regulation Number 3 of 2020 concerning the zoning plan for the Coastal and Small Islands of the Bangka Belitung Islands Province for 2020-2040 also renews the location of both sectors. There are at least 2 main factors to be considered in this transition effort. The first is the environmental impact of tin mining which is causing significant expansive damage considered to be dangerous for the community. The awareness of the long-term danger of this activity is required to be understood and serve as the reason for the government to take a firm stance. Second, the tin economy tends to be short-term, unsustainable and has the potential to trap people depending on it and this means there is a need to prepare for the post-tin era. Simamora and Sinaga (2016) showed the limited role of the regional government in the North Tapanuli as a facilitator in local tourism governance. Djuyandi (2020) also indicated the weak and limited role of the government in the village-based tourism economic transformation agenda which is considered not to be strong in the regional development flow. Therefore, a strong commitment is needed in the regulatory dimensions to encourage the acceleration of the transformation process in Bangka Island. This means the government is expected to take a position using a more assertive policy when it comes to focusing on the sector to be designated as the primary sector. This is necessary due to the fact that a weak role will only slow down the transition process.

![Figure 1. Flow chart of the research method](image-url)


METHODS

This research used a quantitative approach with a descriptive statistical style. This includes the conduct of a survey in Pangkalpinang, Bangka, Central Bangka Regency, South Bangka, and West Bangka Regency which are in the territory of the Bangka Belitung Islands Province, Indonesia. They were determined through a non-random sampling mechanism which involves using a quota sampling based on the characteristics of the area studied. Meanwhile, the respondents for each quota were selected using the criteria that they have been in contact with tourism governance and this led to the selection of 363 people spread over 20 tourist area points which include managers, communities, and governments officials. The questions are arranged using a Likert scale with the grading scale including Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D), and Strongly Disagree (SD), then percentage based on the number of respondents who answered each statement for the analysis of the distribution of choices. Meanwhile, to conclude the answers to each statement, weights are given in gradation starting from 5 for Strongly Agree, 4 for Agree, 3 for Undecided, 2 for Disagree, and 1 for Strongly Disagree. The formula used is total score / Y x 100. The interpretation of the score is 0 – 19.99 % = Strongly Disagree; 20 – 39.99 % = Disagree; 40 – 59.99 % = Undecided; 60 – 79.99 % = Agree; 80 – 100% = Strongly Agree, with a rounding of 0.5 and above. The statements are classified into 3 segments which include the perceptions of tin and mining, perceptions of governance and tourism development opportunities, and respondents’ attitudes towards both sectors. Moreover, 23 statement indicators were used to measure the respondents’ perceptions and attitudes which are the objectives of this study.

RESULTS AND DISCUSSION

The statements provided to the respondents are divided into three main segments which are (1) respondents’ perceptions of the potential and management of tin mines (2) respondents’ perceptions of the tourism sector opportunities, and (3) communities’ choice when faced with the options of prioritizing both sectors

Perceptions of tin and its mining

Tin has been continuously mined on Bangka Island for hundreds of years starting from approximately the 25th century. The Palembang Sultanate, which controlled Bangka in the past, collaborated with the communities from Malacca and China to assist in the extracting process. The entrance of the Netherlands completed the process due to the need for tin by early capitalists in Europe (Sujitno, 2007; Nurdin et al., 2019). The mining is observed to have been continuous up to the present moment despite several changes in the government regime. Moreover, the excavation techniques have also changed from time to time along with technological developments starting from the trench system to the production suction vessel system (Ibrahim et al., 2019). The process is also observed to be conducted by companies controlled and allowed by the government to mine freely. Bangka and Bangka Belitung Islands are almost the only tin-producing areas in Indonesia, even in Southeast Asia considering the fact that Thailand and Malaysia have shut down their tin production for a long time. The Bangka Belitung Energy and Natural Resources Office as quoted by the Environment Agency (2019) reported that Bangka Belitung has a tin potential estimated at 1,832,839 tons. Interestingly, tin mining is now getting more massive due to the fact the policies being implemented from the last two decades have provided opportunities for the community to mine illegally. This means there are no firm and straightforward legal implications for the tin extraction process.

Moreover, Svampa (2012) showed this is similar to the occurrence in Latin America where there was an initial attempt to avoid the extractive economy but later became exporters of natural resource commodities despite its harmful effect on the ecology as well as the ability to cause other multidimensional crises. Massive tin mining has also led to massive environmental damage at the local level due to the absence of sustainable mining considering the fact that communities mine using their method. For example, the Bangka Belitung Environment Agency (2019) showed that a total of 96,588.62 hectares was damaged due to deforestation caused by mining in 2016. This is, however, different from the methods usually applied by registered companies which are usually focused on environmental friendliness and reclamation guarantees. Meanwhile, some other large companies also accommodate illegal mining but that seems to be the status quo allowed to be enjoyed by the masses. It is, however, difficult for the regional governments to prevent its occurrence due to the interest of several actors in the industry such as businessmen, cukong, and the consideration of community welfare.

This research focused on several key issues including the respondents’ perception of the tin reserves richness in this area, daily reality faced by the communities, continuous mining of tin, illegal and legal mining, and the government’s role in handling illegal mining. The impact of environmental damage caused by tin mining and the increasing awareness of the current conditions of the area was also important. The responses provided are, therefore, presented in Table 2.

<table>
<thead>
<tr>
<th>Num.</th>
<th>Statement</th>
<th>SA</th>
<th>A</th>
<th>U</th>
<th>D</th>
<th>SD</th>
<th>Score</th>
<th>In Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bangka Island is still rich with tin resources</td>
<td>14</td>
<td>49</td>
<td>17</td>
<td>19</td>
<td>1</td>
<td>71</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>The community is very dependent on tin mining</td>
<td>10</td>
<td>51</td>
<td>11</td>
<td>24</td>
<td>4</td>
<td>67</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Mining activity is still currently high</td>
<td>11</td>
<td>57</td>
<td>10</td>
<td>21</td>
<td>1</td>
<td>71</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>If I had to choose, I still tolerate official mining but not unconventional mining</td>
<td>6</td>
<td>35</td>
<td>19</td>
<td>28</td>
<td>12</td>
<td>59</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>The regional government finds it difficult to eliminate tin mining</td>
<td>18</td>
<td>58</td>
<td>14</td>
<td>8</td>
<td>2</td>
<td>76</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>People are divided (different opinions) in dealing with tin</td>
<td>12</td>
<td>67</td>
<td>10</td>
<td>8</td>
<td>3</td>
<td>76</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Environmental damage due to tin mining is already severe</td>
<td>40</td>
<td>43</td>
<td>8</td>
<td>8</td>
<td>1</td>
<td>83</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>I am aware that the currently damaged environment will have a bad impact on future generations</td>
<td>57</td>
<td>37</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>89</td>
<td></td>
</tr>
</tbody>
</table>
Table 2 shows Bangka Island is still rich in tin resources as indicated by 63% of the respondents with 49% reported to have A while 14% SA and this means tin is considered a potential wealth owned by the island. The total percentage on this statement is 70.96%, which means A. Furthermore, in line with these findings, 67.64% of respondents also A, with details 62% also stated that the community depends on tin mining while 11% were U and only 35% D and SD. It is, however, important to note that the respondents were selected across the board and not only local miners that depend on tin mining for their livelihood. Furthermore, 70.90% believed mining activity is high and this is associated with the activities they observe daily. The findings also showed that 41% preferred official mining over illegal or unconventional mining while 19% were expressly U and 40% D and SD and this means the community is almost equally divided in making a choice as regards the preferable mining regime. It was found that the total answer data was at 58.9% (in U) with details for this statement. It also shows they perceive illegal mining as being adequate due to the fact that it is a common activity used by the local community to support their family while legal mining is practiced by the entrepreneurs. The results showed that 76.36% (A) believed it is difficult for governments to shut down tin mining due to the fact that the community depends on this natural resource for their livelihood as well as its potential availability. That’s why, 75.59% (A) respondents stated that the community was actually torn between agreeing and still needing tin mining and a small part felt it was unnecessary or could be abandoned. Meanwhile, they are SA with 82.53% that tin mining has caused environmental damage and 89.36% SA or believed this condition has a bad impact on future generations. The below graphic shows the summary of Perceptions on tin and its mining.

Perceptions of governance and tourism development opportunities

The concern for tourism development emerged since Bangka Belitung became a province in 2000 but the area was in the euphoria of free tin mining for the first decade of becoming a province and enjoyed its early days with massive infrastructural development. However, efforts are recently being made by the government to transform to a more environmentally friendly sector due to the environmental damage caused by tin mining and the potential exhaustion of the mineral resource sometime in the future. Coincidentally, Bangka Belitung has a lot of natural resources potential, especially in the beach and marine sectors. The government does not only design tourism through different regional development agendas but also plans to empower tourist areas but this process requires the participation of the host communities. Abrahams (2019) believed this plan has the ability to improve the economy, reduce unemployment, and create new entrepreneurs, especially when the participation is high (Nam-Sick, 2020; Giriwati et al., 2019; Naja, 2021; Putri, 2020; Bickford et al., 2017; Nofiarli, 2018). This study, therefore, formulated some statements related to this transformation to understand the perspective of the respondents and these include 1) the opportunity for the tourism sector to become an alternative economic sector after tin, 2) the seriousness of the government in developing the sector, 3) activities increased, and 4) the readiness of the community. These are important because they focus on tourism which is often opposed to tin mining and this means its prospects need to be deeply explored considering the high opportunities presently provided by tin mining.

The responses from the respondents are, therefore, presented in the following Table 3. The tourism potential of Bangka Island is discovered to be very high as indicated by the approximately 87.93% (SA) for the statement. This is associated with the fact that the community is surrounded by coastal areas with natural beauty potentials and islands with coral reefs. Furthermore, 82.92% is in interval of SA that tourism has the potential to be an alternative in the post-tin economy and in interval A (75.53%) believed the government is prepared for this process as indicated by the increase in the number of infrastructures being developed in the tourist areas as well as the gradual education and awareness being created on the tourism sector. According to the information on the table, the statement that the tourism sector is showing signs of increasing activity, indicated the total of percentage is 78.40% (in interval A), but tin mining is still dominant as indicated by 77.07% (A) of respondents. Meanwhile, 69.24% (A) showed that the community is not too optimistic about the ability of the tourism sector to improve the economy. Below is the graphic summary of the position of Perceptions on governance and tourism development opportunities:

This means the community is optimistic about the possibility of developing tourism as an alternative economic sector but the dependence on the mining sector is presenting a significant challenge. Moreover, most respondents showed a positive assessment of tourism opportunities but the significance decreases when it comes to the transformation process. It was also discovered that there is a positive perception of the tourism sector but mining activity is still considered more important.
Perception of the respondents in prioritizing either mining or tourism

The Bangka Belitung Islands government is trying to encourage tourism development in order to reduce the dependence on tin mining, especially due to the need to prepare for the post-tin economic era. However, the basic challenge is the transition process which is observed to be running slowly due to the non-readiness of the community and local stakeholders to transit to a new sector. Table 2 already shows how tin dependence is considered an important issue with the respondents discovered to be ambivalent considering the expectations for the tourism development and the high dependence of the local economy on tin mining despite its massive negative influence on the environment. This, therefore, led this research to explore the perceptions of the community on the potential and prospects of the tourism sector management as well as the preference of the respondents when faced with the choice between mining and tourism. The responses are, therefore, presented in the following table. Table 4 shows 66.50 % (A) of the respondents confirmed that the government allows the continuous operation of tin mining while the tourism sector is currently being developed. It was also discovered that 76.25 % (A) believed the government is undecided on the sector to be selected for onward development and investment while 81.37 % (SA) reported it is important for the government to take a firm position on this issue. This simply means the government is encouraging tourism while tin mining is still allowed and this shows the inconsistency in its policies.

Table 3. Perceptions of governance and tourism development opportunities

<table>
<thead>
<tr>
<th>Statement</th>
<th>SA</th>
<th>A</th>
<th>U</th>
<th>D</th>
<th>SD</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>The tourism potential of Bangka Island is very high</td>
<td>45</td>
<td>51</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>88</td>
</tr>
<tr>
<td>Tourism can be an alternative to the post-tin economy</td>
<td>27</td>
<td>55</td>
<td>12</td>
<td>6</td>
<td>0</td>
<td>83</td>
</tr>
<tr>
<td>Regional governments have started working on the tourism sector</td>
<td>13</td>
<td>60</td>
<td>20</td>
<td>6</td>
<td>1</td>
<td>76</td>
</tr>
<tr>
<td>The tourist activity is increasing from time to time</td>
<td>20</td>
<td>58</td>
<td>17</td>
<td>5</td>
<td>0</td>
<td>78</td>
</tr>
<tr>
<td>Currently, the community still focuses on mining rather than the tourism sector</td>
<td>13</td>
<td>53</td>
<td>16</td>
<td>4</td>
<td>4</td>
<td>77</td>
</tr>
<tr>
<td>The community is not too optimistic about the tourism potential</td>
<td>11</td>
<td>47</td>
<td>22</td>
<td>19</td>
<td>1</td>
<td>69</td>
</tr>
</tbody>
</table>

On the statement that the local government prioritizes tin mining over the tourism sector, respondents choose A with the percentage of 67.32 %. If we look at the breakdown of the percentage of each choice, we find a balanced position between those who agree and disagree with this statement. The details are 10% that SA and 39 % that A to the statement while 31% were U. This is associated with the government’s efforts to avoid blame considering the difficulties in the transition process, especially concerning finding a solution which is directly related to the welfare of the people. Moreover, the table shows 68.92 % (in interval A) agreed that the attitude of the community is determined by the government and this means the community is ready to implement the policy immediately the government decides to take firm action against tin mining and direct the local economic sector to tourism. The community was, however, observed to be divided on determining the possibility of tourism and tin mining working together with total of percentage is 58.01 % (in interval U), indicated by the 45 % that D and SD, 41 % A and SA while 14 % are undecided and this simply shows the two sectors are different. In reality, the uncertain attitude of the government in determining the sector to be prioritized was also observed to be in line with the perceptions of mining and environmental activists pushing for parallel use of both sectors.

Some of the respondents think both sectors can work together, especially with the potentials of mining in places such as in Kolong Biru, South Bangka while others believe tin mining degrades nature and damages the environment as observed from the coast damaged by offshore mining. This research confirms the significant differences between the opinion of the
government and entrepreneurs as well as the mining and environmental activists. Moreover, Wijaya (2021) showed that the development is expected to focus on the preservation of the locality and ecological aspects to ensure conversation, and Holden (2007) further showed the possibility of planning the conservation process through tourism (see also Marlina et al., 2020). It was also discovered that 78.45% (in interval A) prefer the tourism sector to mine and indicate their desire to take its management seriously but the majority follow the current trend as indicated by 64.46% (in interval A). Furthermore, 51% (total SA and A) of the respondents prefer to resist the mine if they have the power while 20% were found to be U and 27% did D and SD. This shows the Bangka Island community tends to have a balanced attitude when faced with the choice of both sectors. Although the total proportion based on the percentage data tabulation is 68.42% or is within the A interval, based on the details of the choices in this statement, respondents take a stand to make choices about the sector and tin mining. Below graphic shows the summary of the Perception of the respondents in prioritizing either mining or tourism:

**Reasoning public inconsistency**

The findings show some interesting things.

First, the fact that the community is aware of the tin potential in Bangka Island is very promising and this obviously shows why the people depend on mining for survival. This situation further confirms the existence of several mining operations being conducted in the area without any serious action from the government. Moreover, the people understand the mining process is damaging the environment with long-term negative impacts on the future generations but still engage in illegal mining instead of participating in legal mining. This is, however, paradoxical to the opinion of Saari et al. (2021) that a higher perception of environmental risk usually leads to greater awareness and action to encourage sustainable development. This research, therefore, shows the anomaly reflected when concern and awareness of the environment do not run consistently with the knowledge and attitudes of the inhabitants.

Second, the community was found to understand that the tourism sector currently being developed by the government in collaboration with some stakeholders in the industry is a great opportunity for the post-tin economy. The people also know there is a need for more optimism to achieve the optimal potential of tourism towards improving the economy. This means the transition process or effort requires showing the people the proof that the new sector has the ability to enhance the local economy.

Third, the respondents representing the community were observed to be inconsistent in their attitude. This was indicated by the fact that they understand the negative impact of tin mining as well as the high opportunities for tourism development but still tolerate and provide mining opportunities even with insignificant degrees of gradation. This shows tin mining is not going to be abandoned despite different awareness made and developed by the government concerning the transition process. The following scheme shows the inconsistent perception and attitude of the community towards the issue of tin mining and tourism:

The scheme shows tin mining was perceived as something potential due to its short-term economic benefits but considered dangerous especially due to its negative impact on the environment and future generations. Moreover, the tourism sector was also perceived as potential which is currently being developed by the government but observed not to be economically attractive. Meanwhile, the community thinks both sectors have the ability to work together while the government was observed to be undecided in implementing its policies. The community was also discovered not to desire a strong resistance to mining activities and this means they prefer the two sectors are temporarily allowed to be run together.
The sustainability perspective shows tin mining as an unrenewable exploitative fossil commodity with the excavation process discovered to have a significant ecological impact on the environment in the long term even though the economic benefits are very high. Environmental damage has always been a fundamental problem for countries with rich natural resources after long-term exploitation (Schilling et al., 2020; Paat et al., 2021). Mining should be understood as a thing of the past while several sustainable activities are expected to be the logical choices implemented to conserve and protect nature. Moreover, Motesharrei et al. (2014) showed the reasons to direct ecological tensions and economic stratification towards the era of sustainability and equitable distribution of resources to avoid wider destruction. Buchs (2021) also used the term sustainable welfare to emphasize the importance of equitable distribution and democratic governance. The era of tin mining is, however, indicated in the scheme as the red zone which is the past while tourism is in the green zone due to its potentials but the community was discovered to be inconsistent in its choices by exploring both sectors at the same time.

This inconsistency was observed to be due to certain explanations and the first is related to those considered to be interested in tin mining. The chain of tin extraction and continuation of its trade is very profitable for high-end entrepreneurs and businessmen at the local, national, and international levels. Meanwhile, the mining process discovered to be the closest to those in the community with direct impact on their livelihood is illegal and this has been described in some studies as a trap for the local economy (Haryadi, 2019; Purnaweni et al., 2019; Rosyida et al., 2018). Most of these illegal miners were originally fishermen and farmers that turned to free mining since the implementation of the deregulation policy at the beginning of Indonesia’s reformation in 1998. It is, however, difficult to stop this activity with several politicians using it as a political campaign issue to gain voter support during elections. Moreover, tin entrepreneurs also buy illegal mining products and convert them to legal trade while some local elites were also discovered to be supporting illegal tin production. These are, therefore, observed to be the reason for the reluctance of the respondents to support the abolishment of tin mining.

Second, the current regulations on the tin mining sector are overlapping, especially those concerned with the zone division of both sectors. The government already has a regulation on regional zoning but the inconsistency of its implementation makes it difficult to develop the tourism sector with several mining companies’ production permit areas (IUP) discovered to be existing before this regulation was issued. This means tin mining expands continuously in the operational area despite the determination of the zones to be formalistic as indicated by the widespread mining conflicts due to territorial disputes. Furthermore, the conflicts between miners and non-miners are ripe with some leading to physical assaults, destruction of mining equipment, and arrests of anti-mining activists in the name of law enforcement. This danger was reiterated in Gould’s (2017) research that the ecotourism sector is projected to be under pressure along with changes in the political economy of natural resources as exemplified in the Belize study.

Third, both the regional and central governments do not take a firm stance to develop the tourism sector and are also observed to be undecided in implementing the policy to make a choice between mining and tourism sectors due to their unclear attitude. It is, however, important to note that the prioritization of the tourism sector depends on tin mining or even letting the two sectors work together. Therefore, the Bangka Belitung Islands government s issued Regional Regulation Number 7 of 2016 concerning the Master Plan for Tourism Development and the data retrieved showed the growth of the tourism sector decreased by 0.8% in 2017 from 4.06% in 2011 (Megawandi, 2020).

Rendy et al. (2020) confirmed that the local leadership in Bangka Belitung is weak from an ecological perspective due to its inability to provide a maximum portion in planning development through an ecological vision. Yanuardi et al. (2021) also reported the absence of serious discussion on the environmental and social impacts of extractive industries in Indonesia with a focus on the sustainability assessment described by Sala et al. (2015) or Social multi-criteria evaluation (SMCE) analyzed by Etxano and Eguiluz (2021). Moreover, Leonard (2017) found continuous mining with permits to be undermining tourism development and sustainability efforts at the local level. This, therefore, means the government needs to take decisive action to prioritize a specific sector rather than working on both simultaneously using the same treatment. There is a need to start preparing post-mining alternatives for the future economy and reducing the dependence on the tin economy.

Fourth, the tourism sector in Bangka Island was discovered not to be the main focus due to the high potential of tin mining. The tin economy still prevails despite the awareness of its environmental damage by the elites and the whole community and this is due to the belief that abandoning tin has the ability to shut down the key economic opportunities while the tourism sector is not yet very promising. The difficult question to answer is that “when will tourism become more promising than tin mining considering the inconsistency of society and government?”

The ideal figure is, therefore, presupposed as follows:

![Diagram of Tin Mine Based Economy and Government Position](image)

**Transition Boundary**

**Tin Mine Based Economy**
- Potential and still exist
- Extractive and exploitative
- Environmental damage
- Long term impact

**Government Position**
- Tin Mining

**Tourism Based Economy**
- Sustainable development
- Conservation and reclamation
- Green economy

Figure 6. Reason for the (in)consistence public
The scheme shows the need for the general community to develop consistent reasoning which is based on the condition that the tin mining sector has potential and exists but should be understood as an extractive and exploitative industry measured in terms of sustainability. The massive environmental damage with long-term impacts caused by this sector is expected to make them understand that the longer exploitation of the tin economy has the ability to increase its long-term negative effects. This means the community needs to be consistent with its decision to build a better society such that a more decisive transition is implemented instead of running mining and tourism simultaneously. Moreover, a firm action needs to be effected on economic choices to ensure more sustainability, conservation, and reclamation of the damaged environmental conditions, and also to encourage the choice of a green economy with dimensions of sustainable development. Therefore, tourism is believed to be the best choice, not just accepting the situation and assuming that it will only fight if there is a power. The Figure 6 assumes the decision is to be made by the community in front of the transitional boundary. Some of the factors to be considered in determining the consistency of the community reasoning include the interests in small and illegal mining activities which are conducted with entrepreneurs owning large and legal mines. This is observed from Table 2 where the tolerance for illegal is generally associated with the involvement of small non-companies. Moreover, Ibrahim et al. (2018; 2019) showed the biggest profits from tin mining are usually obtained by big businessmen and outsiders while Auciello (2019) emphasized the need to stop the influence of extraction corporations due to the threat they present to social justice and ecological welfare. This means the opportunity of mining only prolongs corporate aggression and large-scale mining despite its short-term economic benefits to the grassroots due to the fact that these companies will continue production through the supply from illegal mining.

The spread of violent conflicts due to resistance to tin mining has been reported at several points (Sulista et al., 2019; Ismi, 2020; Bidayani and Kurniawan, 2020; Kurniawan, 2021). Meanwhile, the government rarely considers a divided community in making a critical decision due to the existence of the tin economy in the red zone based on its illegal and destructive aspects. It is also important to note that both the miners and other interested actors prefer the status quo and profit from its problematic short-term effects. The government is also expected to have implemented post-mining-oriented policies and take a position further from the frontline. It is important to note that the encouragement of tourism involves targeting two things at once and these include ensuring a more sustainable development with long-term effects as well as a post-tin economy which is friendly to the environment. This is due to the fact that tourism development has an element of conservation which is the basic principle of future-oriented development.

Moreover, sustainability is inevitably an urgent matter which involves focusing on the long-term aspects and this means a fast and fair transition is a rational choice which can be implemented despite the uncertainty of the government. Cahill and Allen (2020), however, showed that a fair transition has the ability to strengthen the three pillars of sustainable development which are the community, environment, and economy. It is also an environmentally friendly economy containing procedural justice, participation, and empowerment.

**CONCLUSION**

The findings showed some important information related to the perception and attitude of the Bangka Island community towards tin mining, tourism, and reasoning concerning the inconsistencies associated with these sectors. The community has a lot of tin wealth even though it has been mined for hundreds of years as indicated by the current legal and illegal mining activities being conducted on a massive scale in the area. The people were observed to understand that the local government seems to have difficulty dealing with mining problems. Moreover, the people benefit directly from the mining activities and also tolerate illegal ones probably due to the locality rights and available opportunities as presented by half of the respondents. They are also aware of the significant environmental damages caused by this mining process and its subsequent negative effects on future generations.

Bangka Island community also realizes the potential of tourism as an alternative sector to be developed in the post-tin economy. The government was found to have made several efforts towards encouraging the management of this sector but it cannot work together with the mining sector. However, tin mining was observed to be dominant due to the non-maximization of the economic aspect of the tourism sector even though it is preferred by most of the respondents.

The community was discovered tend to be providing an opportunity for tin mining including illegal ones and also tends to work in line with the trend in both sectors. This means the people are ready to move in line with the actionable policies of the government. However, it was observed that there is no significant willingness to enforce the laws to stop mining as indicated by themselves to temporarily just follow the current condition.

It was also discovered that the community is inconsistent between both sectors with the government observed to be developing tourism for the future while tin mining is presently being supported instead of being left in the past. This inconsistency was associated with several reasons including the direct benefits of tin mining to the local economy despite different interests, overlapping of the regulations especially those concerning legal and illegal mining, inconsistencies in the implementation of these rules, inconsistent application of the zoning designed for the two sectors, and the non-consideration of the tourism has a sector with the potential to have a significant economic impact. Therefore, there is a need for the parties involved to formulate and implement a policy with consistent reasoning between knowledge and action as proposed in this research to ensure a smooth transition process.

**REFERENCES**
