



Mining, Minerals and  
Sustainable Development

October 2001

No. 183

# Baseline Study and Gap Analysis on Mining in Indonesia

Rachman Wiriosudarmo  
Yayasan Ecomine Nusa Lestari, Jakarta

*This report was commissioned by the MMSD project of IIED. It remains the sole responsibility of the author(s) and does not necessarily reflect the views of the MMSD project, Assurance Group or Sponsors Group, or those of IIED or WBCSD.*



International  
Institute for  
Environment and  
Development



World Business Council for  
Sustainable Development

Copyright © 2002 IIED and  
WBCSD. All rights reserved

Mining, Minerals and  
Sustainable Development is  
a project of the International  
Institute for Environment  
and Development (IIED).  
The project was made  
possible by the support of  
the World Business Council  
for Sustainable Development  
(WBCSD). IIED is a  
company limited by  
guarantee and incorporated  
in England. Reg. No.  
2188452. VAT Reg. No. GB  
440 4948 50. Registered  
Charity No. 800066

# TABLE OF CONTENTS

INTRODUCTION.....	6
PART I.....	8
CHAPTER 1: LAND ACCESS FOR MINING.....	8
1.1. Introduction .....	8
1.2. Regulatory Framework.....	8
1.2.1 Mining Priority.....	8
1.2.2 Regulatory Conflict.....	10
1.2.3 Land Status During Exploration.....	11
1.3 Cultural Land Ownership.....	12
1.3.1 Recognition of Cultural Land Ownership.....	12
1.3.2 Availability of Cultural Land.....	13
1.4 Land Compensation.....	14
1.4.1 Uncertain Land Status.....	14
1.4.2 Factors Affecting Land Compensation .....	15
1.4.3 Intervention from Local Authorities .....	15
1.4.4 Sustainable Value in Compensation .....	16
1.4.5 Cultural Dimensions of Land .....	16
1.5 Post-Mining Land Use.....	17
1.6 New Initiatives and Policy Trends .....	17
CHAPTER 2: COMMUNITY RELATIONSHIPS.....	19
2.1 Introduction.....	19
2.2 Government Policy.....	19
2.3 Fundamentals of Mining Exclusivity .....	20
2.3.1 Regulatory Consequences.....	20
2.3.2 Pre-Production Community Relationships .....	21
2.4 Employment for Local People.....	22
2.4.1 Expectations.....	22
2.4.2 Priority .....	23
2.4.3 Incoming Workforce.....	23

<b>2.5 Implications on Cultural Values .....</b>	<b>24</b>
2.5.1 Increase of Accessibility .....	24
2.5.2 Cultural Transition .....	25
<b>2.6 Community Development.....</b>	<b>26</b>
2.6.1 Poverty and Scarcity .....	26
2.6.2 CD Acceptance.....	27
2.6.3 Uncertainties in CD Policy .....	27
2.6.4 Perception of the Mining Industry and Community Expectations.....	28
2.6.5 Success Factors .....	29
<b>CHAPTER 3: ENVIRONMENTAL PROTECTION AND DEGRADATION .....</b>	<b>31</b>
<b>3.1 Introduction.....</b>	<b>31</b>
<b>3.2 Characteristics of the Mining Industry .....</b>	<b>31</b>
3.2.1 Location of Minerals and Environmental Capacity.....	31
3.2.2 Deforested Mining Areas .....	32
3.2.3 Large Volume Waste Materials.....	33
<b>3.3 Structural Weaknesses .....</b>	<b>33</b>
<b>3.4 The Mining Industry’s Conservatism.....</b>	<b>35</b>
3.4.1 Transparency .....	35
3.4.2 Legalistic Compliance .....	35
3.4.3 Environmental Management Principles .....	37
3.4.4 Self-Assessment and Internal Standard Operating Procedure.....	37
3.4.5 Internal SOP .....	38
<b>3.5 Legislative Frameworks.....</b>	<b>39</b>
3.5.1 Mining Legislation and Environmental Protection .....	39
3.5.2 Enforcement Problems .....	40
<b>3.6 The Role of the People .....</b>	<b>42</b>
3.6.1 Demand for Social Justice .....	42
3.6.2 Legalistic Framework of Community Involvement .....	42
3.6.3 Environmental Compensation .....	43
<b>3.7 Mine Closure Issues.....</b>	<b>44</b>
3.7.1 Compliances .....	44
3.7.2 Constraints .....	45
3.7.3 Mine Closure Objectives.....	46
<b>CHAPTER 4: ISSUES RELATED TO SMALL-SCALE MINING .....</b>	<b>47</b>
<b>4.1 Background .....</b>	<b>47</b>
<b>4.2 Development of the People’s Mining .....</b>	<b>48</b>

<b>4.3 Illegal Mining Operation .....</b>	<b>49</b>
4.3.1 History of Development.....	49
4.3.2 Environmental and Social Impacts .....	50
4.3.3 Illegal Coal Mining.....	51
4.3.4 Elimination of Illegal Mining .....	52
<b>4.4 The Community’s Right To Mine .....</b>	<b>52</b>
4.4.1 The Legacy of the Colonial Policy .....	52
4.4.2 Definition of SSM.....	53
<b>4.5 The PSK Concept .....</b>	<b>54</b>
<b>4.6 Small Scale Mining Development Issues .....</b>	<b>56</b>
4.6.1 Institutional Issues.....	56
4.6.2 Exploration and Investment Risk .....	56
4.6.3 SSM for Industrial Mineral .....	57
<b>4.7 Health and Safety.....</b>	<b>58</b>
4.7.1 Environmental Concerns.....	59
<b>4.8 Choice of Technology.....</b>	<b>60</b>
<b>4.9 Future SSM Development Program.....</b>	<b>60</b>
4.9.1 Policy Reform .....	60
4.9.2 Within Poverty Alleviation Framework .....	63
<b>CHAPTER 5: ECONOMIC ROLE AND INVESTMENT POLICY.....</b>	<b>64</b>
<b>5.1 Introduction.....</b>	<b>64</b>
<b>5.2 Export and its Consequences .....</b>	<b>65</b>
<b>5.3 Open-Door Mineral Policy.....</b>	<b>67</b>
<b>5.4 Controversial Economic Roles of Mining.....</b>	<b>68</b>
<b>5.5 Contribution to the Domestic Market .....</b>	<b>70</b>
<b>5.6 Policy Trend.....</b>	<b>72</b>
<b>CHAPTER 6: GOVERNANCE AND MINERAL DEVELOPMENT IN SEARCH FOR ANSWERS .....</b>	<b>74</b>
<b>6.1 Introduction.....</b>	<b>74</b>
<b>6.2 Brief History of Mining in Indonesia.....</b>	<b>74</b>
6.2.1 Mining Operation.....	74
6.2.2 Legislative History of Mining .....	76

6.2 What is Happening? .....	77
6.3 The Framework of Policy Reform .....	79
6.4 Sustainable Development Framework .....	80
6.4.1 Social Justice .....	81
6.4.2 Sustainability .....	81
6.4.3 Inclusiveness .....	81
6.4.4 Social Transformation.....	82
6.4.5 Decentralised Governance of Mineral Resource .....	83
6.5 The Demand for Good Governance.....	83
6.6 Good Governance in the Civil Society .....	86
<b>PART II: BROADER PARTICIPATION OF STAKEHOLDERS IN THE DIALOGUE PROCESS .....</b>	<b>87</b>
<b>1 CURRENT COMMUNICATION PROBLEM .....</b>	<b>87</b>
<b>2 OPPORTUNITIES FOR IMPROVED EXCHANGE OF INFORMATION ON MINING OPERATIONS .....</b>	<b>88</b>
<b>PART III.....</b>	<b>91</b>
<b>1 KEY AREAS IDENTIFIED .....</b>	<b>91</b>
1.1 Land Access for Mining.....	91
1.2 The Role and Position of the Community in Mining.....	91
1.3 Small-Scale Mining .....	92
1.4 The Role of the Local Government in Mining.....	92
<b>2 PROPOSED AGENDA.....</b>	<b>92</b>
2.1 Formatting Sustainable Mineral Development Concept.....	92
2.2 Action Agenda: .....	92
<b>3 COMMUNITY MINING MODEL .....</b>	<b>93</b>
3.1 Action Agenda: .....	93

## INTRODUCTION

The report is the realization of the agreement between International Institute Environment and Development (IIED) in London and Yayasan Ecomine Nusa Lestari (Rachman Wiriosudarmo) in Jakarta. The contract was signed on 9 June 2001. The project commenced at the time of the signing of the contract. The duration of the project is four months, beginning in mid-June and will be terminated by mid-October 2001. The project was named "Base Study and Gap Analysis on Mining".

The purpose of the baseline study and gap analysis is to identify the gaps in knowledge and understanding of the mining and minerals sector in Indonesia and the circumstances that have a bearing on the role of the sector in the society, economy, and environment of the country.

The baseline study calls for a synthesis of current knowledge through a focus on several specific issues. In all cases, however, this study does not produce a simple record of the status quo. Instead, the baseline study will increase the understandings of:

1. The main areas of contention and conflict, including legacy issues
2. Structural and political constraints to progress in key areas
3. The key drivers of change in particular areas
4. Good practice in specific areas of activity
5. New initiatives being proposed, and ones currently underway

The baseline study is conducted in a manner that will ensure inclusion of different stakeholder perspectives on each of these issues, either from published sources or from discussions with key actors.

PART ONE of this report consists of five chapters, which are:

6. Land access for mining
7. Community relationship
8. Environmental protection
9. Small-scale mining
10. Economic and investment considerations
11. Governance and development

The discussion on each key issue will focus on two areas which function as the sources of contention and conflict. Those two areas are:

1. Legislation and government policy
2. Policy and practices in the mining industry and the general perceptions/attitudes

The expected gap between these two areas is identified as potential factors triggering or creating adverse social impacts and responses that emerge in the form of contention and conflict. In general, contention and conflict reflect the acceptance of the mining industry in Indonesia.

PART TWO of the report contains a review of opportunities for creating broader participation of the stakeholders in the dialogue process to improve two areas:

1. Exchange of information on mining
2. Dialogue facilities

PART THREE of the study report will contain recommendations on the gap in knowledge, practices, communication, and capacity, which may require analysis that is more detailed and stakeholder engagement. Proposed agenda for action is also presented in PART THREE.

## **PART I**

### **CHAPTER I: LAND ACCESS FOR MINING**

#### **1.1. Introduction**

Most mining companies operating in Indonesia face a land problem. In the last three years, the land problem has been escalating in its complexity as well as extending in its problem areas. To some extent, this problem has affected the mining investment process, from the postponement of exploration activities to the closing of mining operations. It has also become the prime source of conflict and triggering an anti-mining battle cry. Unless an acceptable resolution is found, it is safe to predict that land problem will be the graveyard of the mining industry in Indonesia.

To date, there hasn't been any fundamental resolution has been proposed. Some mining companies, however, are compelled to resolve the problem through various ad-hoc approaches. Some of these individual and ad hoc approaches resulted solution, but some others did not. Since the government agency responsible for mineral investments, the Department of Energy and Mineral Resources, has no power whatsoever to offer a fundamental resolution to the land problem, individual initiative seems to be the best choice.

There is high expectation that local governments will initiate a fundamental resolution to land problem when the decentralized system is established. The coming regional autonomy is expected to be an effective system for implementing spatial planning at the regency level. However, with regard to political, social, and economic problems, establishment of decentralised system would take a longer time than expected.

The following report is not to offer resolution to the land problem, but to give an understanding of various issues that ever since have been an obstacle to possible harmony between the mining industry and the local community. It is hoped that by understanding the obstacles, a fundamental step to resolve the problem can be taken in the future.

#### **1.2. Regulatory Framework**

##### **1.2.1 Mining Priority**

The general provision of land use and land ownership is under the jurisdiction of the Agrarian Law, or Law No. 5, of 1960. Although without elaboration, the Agrarian Law recognises the cultural land ownership through its stipulation that "cultural land ownership will be recognised when it is not in conflict with state interest". Since the promulgation of the mining law in 1967 to, at least 1998, the government had strong inclination to consider mining as an important state interest due to its capacity in export earning. Therefore, the

case of land use or mining, the landowners were not given alternatives but to surrender their land to mining investors as wished by the government.

The national role of mining has been given such high priority in the past that the Mining Law, or Law No. 11, of 1967 stipulates, “a mining permit issued by the Minister of Mines has the capacity to overrule land ownership issued by other government agencies”. Consequently, cultural land ownership, which is weakly regulated, is at the lowest list of recognition by the government agency responsible for mining development and the mining industry.

At the time the Mining Law No. 11 of 1967 was issued in 1967, the Indonesian economy was at a very low point. Mineral industry was sought to become an important sources of foreign currency and foreign investment. It was for this reason that land use for mining investment was given such high priority. The government and some experts also argue that the high priority of land use for mining is justified by the fact that mining is a temporary activity.

To 1980, mining industry was the prime source for export earning, second by plantation products, such as rubber and coffee. However, since the middle of the 1980s, the government has been promoting export of industrial products, along with forestry, tourism, manufacturing, and agricultural products. Export from non-oil and gas industries escalated tremendously; consequently, the role of minerals in the national export was relatively less important.

Due to the fast growing national development in the last two decades, competition for land use had been increasingly sharper. The demand for land for industrial and settlement purposes increased very rapidly. The mining industry, which has a long gestation period, could not compete in the race for land use. Land use conflicts between mining and other industries, as well as between mining and the community, also increased. It seemed that priority in using land enjoyed by the mining industry as stipulated in the Mining Law has lost its meaning in the real business life.

In the beginning of 1980s, the government declared open door policy for foreign investment. The policy has attracted massive influx of foreign investment to Indonesia. Each sector promoted its potential for foreign investment. In the mining sector, Indonesia’s geological features are a great attraction to the foreign mining investment. In the mid-1980s the government signed not less than 100 contracts of work for foreign mining investment. With such great number of mining contacts, land use for mining had also increased extensively. On the other side of the fence, land demands for settlement, plantations, and industry also increased at tremendous speed.

The increase of mining investment and the slow progressing mineral development has left mining industry behind in race of land demand. In short, mining has lost its comfortable position in using land. However, the regulatory framework for mining remains unchanged, and in consequence of that, mining activity is confronted with various social, environmental, and political problems that had never been experienced before.

According to the Indonesian constitution, both land and minerals are under the control of the state. According to Agrarian Law No. 5 of 1960, the state control over land covers the power of the government to regulate the use and maintenance of land, regulate the legal relationship between humans and land, water, and airspace. It also regulates legal relationships amongst people within the regulatory framework of land, water, and airspace. According to Agrarian Law No. 5 of 1960, land ownership is transferable, both from the state to private and private to private. On the contrary, according to Mining Law No. 11 of 1967, mineral ownership is not transferable. Mineral ownership remains in the hands of the government, and the private sector developing mineral resources is positioned as contractor to the state. Putting together these two rules implies that although surface ownership is transferable, but the government has all discretion to assign any land for mineral development. The landowner has no power to claim any right of ownership, since he has no vertical jurisdiction of his land. In addition to that, the government claims its right to develop mineral as stipulated in the constitution, which stipulate that mineral is controlled by the state.

### **1.2.2 Regulatory Conflict**

In the framework of mineral development, land is mainly recognised as an economic asset. This perception implies that mining should be given priority to land access since it yields greater economic value than other sectors. For its lack of accommodation of cultural and environmental values of land, this economic value-oriented perception is one of the important contributors to land conflict.

In the colonial period, mining was one of the important economic interests, which function was to satisfy the colonial country's need for raw materials. During that time, the colonial government gave mining and other large-scale industries a high priority. The government did not accommodate the people's interests in the regulatory systems concerning development of natural resources. Mining Law No. 11 of 1967 and the Contract of Work system for mining are strongly influenced by this colonial legacy.

Agrarian Law No. 5 of 1967, on the other hand, in principle is more people-centred. Article 6 of this law, for example, stipulates, "All land rights have a social function". Article 7 of this law also stipulates,

*For not harming the public interest, excessive land possession is not allowed.*

Mining Law No. 11 of 1967, which was derived from the colonial mining law of 1930 (*mijn ordonantie 1930*), regulates the interests of mineral development without referring too much to the surface interests. Similarly, the Agrarian Law No. 5 of 1960, regulates land surface ownership without referring too much to sub-surface interests.

However, both laws share a common principle of "domain right of land". Both laws abolished the existence of "domain right of land". The colonial government used to grant the domain right to mineral and forest exploitation as well as to plantation companies. The domain right for such exploitation of natural resources was known as "concession areas". In the mineral sector it was known as "mining concession areas".

According to Mining Law No. 11 of 1967, the government has the right to designate any land as mineral land for either exploration or mining operations through a special permit called “mining authorization”. To acquire for exploration areas and mining areas, a mining company is not required to have land permits as stipulated in the Agrarian Law No. 5 of 1960.

On the contrary, all interests on the land surface have to comply with Agrarian Law No. 5 of 1960, which stipulates the following land rights and land ownerships:

1. Right of ownership
2. Right of exploitation
3. Right to build
4. Right to use
5. Right to lease
6. Right to develop
7. Right to collect forestry products
8. Other rights which are not included in one of the aforementioned rights

According to Agrarian Law No. 5 of 1960, in using land, it is obligatory for any individual or company to have one of those land rights. The Agrarian Law, however, does not stipulate land use for mining specifically. It is, therefore, the only compliance for land use for mining is the Mining Law No.11 of 1967, which stipulates that the legitimate holder of mining authorisation has the right to take over any land of any category of ownership. In the event that a landowner declined to surrender his land to the holder of mining authorization, he would expose himself to possible law violation. Combination of high priority of mining and government repressive nature in the past had given no alternatives for the landowner but to surrender the land resulted involuntarily relocation of people and community.

### **1.2.3 Land Status During Exploration**

Foreign mining investment in Indonesia is regulated through Contracts of Work (CoW), which is an exclusive contract between the government and mining investor. In principle, a CoW does not have to comply with any provision in the mining law or in the other laws otherwise specified in the contract.

Regarding land use for mining, the function of CoW is equal to mining authorization. Consequently, landowner has to surrender any land allocated to the mining investor as a contract area. Although it is termed as allocation, in practice the government does not actively allocate mineral area, but only approving areas applied by the mining investor for contract areas, which may cover as large as millions of hectares.

During the exploration period, which may have duration of five to ten years, mining investor is not required to apply for any land permit as stipulated in the Agrarian Law No. 5 of 1960. The investor holding CoW has the right to access land for conducting exploration.

Land-related obligations in a CoW are to compensate damage to land surface property and to pay land related taxes. Although the mining investor has to pay land taxes during exploration, it does not mean that the landowner is relieved from normal land taxes. In other words, the government practices a double tax obligation on the same plot of land used for exploration.

At the time the investor is conducting air borne type of exploration, the landowner does not realise of his land is being accessed. However, at the time of drilling activity, conflict with landowner is inevitable. Although compensation for damage caused by drilling activity has been paid, access to private land without the consent of the landowner is unacceptable to the landowner. Land conflict of this cause is common.<sup>1</sup>

Land compensation to landowner during exploration is not acceptable to investor, since, the investor argues, during exploration the investor gains no benefit from the land and land taxes are paid to the government. Since land use during exploration is not compensated, the landowner tends to be reluctant to surrender his land for exploitation. The prospect of mineral discovery is, therefore, perceived as a threat to land ownership.

Upon the completion of exploration activity, the exploration area is to be relinquished as much as 75% of the original CoW area granted to the investor. The remaining area, which is named the mining area, consists of 25% of the original area. Law No. 11 of 1967 and the CoW stipulate that the relinquished areas shall be returned to the government. In this context, there is uncertainty concerning the status of land rights (private and cultural) of the relinquished areas after the mining company has returned the land to the government. The relinquished areas may not be returned to the landowner.

### **1.3 Cultural Land Ownership**

#### **1.3.1 Recognition of Cultural Land Ownership**

According to the Agrarian Law, cultural land ownership is recognised in areas where the cultural laws exist in reality and are the basis of daily life of the people in the community. It is understandable that the mining industry, especially those companies controlled by foreign investment, will find it difficult to determine in which areas the cultural laws still exist and govern the daily life of the people. As general rule, it is safe to consider that most communities in Indonesia, especially outside Java, are strongly devoted to cultural laws (“hukum adat”). However, Indonesia is a country of diversified cultures, and the traditional laws governing land ownership are not well codified. Each area may have completely different traditional rules on and tolerance of land use.

It is apparent from various contacts with the mining industry that they are fully aware of the existence of cultural land ownership and accepts it as a reality of life of the mining industry in Indonesia. In reality, cultural land conflict is caused more by the lack of understanding of the complexity of the cultural land ownership system.

---

<sup>1</sup> The Haruku land conflict during exploration in 1997-98 was given wide coverage by the media.

Complexity of the cultural land ownership would not be barrier to investment if the industry were willing to prepare itself to deal with it. Codification of cultural land ownership all over the country is an ideal approach to assist the investor to gain prospective view of land problems in a certain area.

One of the problems with cultural land ownership concerns legal boundaries. Although legal boundaries are uncertain, the distribution of land ownership is definitive amongst the tribal communities. Each plot of land belongs to a certain tribal community, and the ownership is not limited to agricultural land or other economic land uses, but also to include forests, lakes, rivers, mountains, and all other natural features within certain geographical boundaries. Each cultural community may not be so much the owner of the land, but at least they consider themselves the cultural guardians of the land.

Uncertainty of the boundaries of cultural land ownership is one of the most complex issues of land use for mining. With uncertain land boundaries it is impossible for the industry to determine the compensation coverage of land for mining. Land conflict caused by inaccurate distribution of compensation is very common. In other cases, land compensation may result in a horizontal conflict.

The second complex issue of cultural land ownership is the fact that Indonesia is culturally diversified country. Each area has its traditional rules and procedures. It is a common occurrence that one mining area covers more than one cultural area, with different traditional rules and procedures. Due to the lack of knowledge of cultural land ownership, the industry has unconsciously developed a perception that may trigger conflict. Because of the complexity of cultural land ownership and the time constraints in project preparation, the industry tends to underestimate the necessity of following cultural procedures for land compensation.

The failure of the industry to comply with cultural rules and procedures of land access and land compensation is primarily caused by the formal approach taken by the industry. The formal approach is based on the perception that the best practical way to deal with the people is through government agencies or local authorities. This procedure tends to invite power abuse by the local authorities, which results dissatisfaction in the community.

### ***1.3.2 Availability of Cultural Land***

Because of its complexity, cultural land ownership is perceived by members of the mining community as a serious obstacle to mining investment. With regard to the problem of cultural land, there are questions asked about the degree of availability of the cultural land for mining. In fact, as complex as it seems, cultural land, to some extent, is available or accessible for mining.

According to experts, cultural law conception is characterised by its communal religious beliefs, which permit individual land ownership in the context of the common interest of the community. The collective land ownership (which is called “ulayat” right) is based on the belief that land is a God-given provision to the community to sustain their lives from one generation to another. According to this definition, the relationship between land and

religion is obvious. (Professor Boedi Harsono, “Hukum Agraria Indonesia”, revised edition 1999, Penerbit Jembatan).

From the above-mentioned academic understanding, it is obvious that recognition of individual land ownership in the cultural land ownership system, as long as in the framework of common interest, could be a positive corridor for industrial land use.<sup>2</sup> In other words, the cultural land system is not completely un-accommodative to industrial development. However, to pass that corridor we need to follow cultural procedures. Financial compensation is a necessity, but insufficient. Ignoring cultural values in the process of land access and land compensation is a short route to prolonged land conflict.

## **1.4 Land Compensation**

### **1.4.1 Uncertain Land Status**

One of many the sources of land conflict is compensation. In general, the mining industry has no objection to compensate for land, especially for that which is privately owned. The problem arises when the status of land ownership is uncertain.

As described previously in this report, the boundaries of cultural land are uncertain, in terms of both legal status and tribal ownership. According to the government regulation, only private land is subject to compensation; unused state land is not subject to compensation. The cultural community claims that land, which is not private land, is cultural land. At the time of allocation of a mining area, the government assumes that the status of such non-private land is state land and the investor complies with this view. Problems will arise when the land of such category is used without compensation payable to the community.

Compensation for cultural land may create conflict amongst communities if the boundaries are not certain. The time constraints in the preparation of a mining project and reluctance to get deeply involved in community disturbances, tend to cause mining companies to delay the process of compensation. Such decisions may result in allegations of wrongdoing by mining companies, and cases of such nature are known as betrayal of promises committed by the mining company. If such cases were taken over by the local authority, the decisions might not be satisfactory to either or both the community and the company.

Uncertainty of land status is sometimes an effective instrument for smaller mining operators to deny compensation. Smaller-scale mining projects tend have limited budget for land compensation. It is not a rare occasion that such mining operators collaborate with the local authority to avoid possible compensation.

---

<sup>2</sup> As an example, we may present the case of land used for a cement factory in Padang, West Sumatra. The cultural community voluntarily surrendered their land to a state-owned cement factory about three decades ago. The decision was based on the understanding that the cement factory was a public interest. When the government decided to sell the cement factory to foreign investors three years ago, the cultural community was against the decision and the process of selling was adjourned. The West Sumatra cultural community (the Minangkabau ethnic group) is very strict about cultural landownership.

### **1.4.2 Factors Affecting Land Compensation**

The mining industry is frequently confronted with cases of repetitious land compensation claims from community. It seems that the community is always complaining about unfair previous payment of land compensation and keep requesting more payment. This phenomenon has created a distorted perception that the community tend to be materialistic, which is characteristic in the community of lower education and lower standards of income. From a number of land cases we learn that such phenomena is caused by three factors of pressure from outside during the process of compensation, e.g.:

- Repressive intervention from the local authority
- Absence of sustainable value in the compensation
- Loss of land cultural values

### **1.4.3 Intervention from Local Authorities**

Intervention from the local authorities is implemented through tariff regulation and mediation. In many provinces and regencies, the local government regulates procedures and tariffs for compensation of surface properties and land, whereas tariffs set by the local government are normally much lower than that expected by the community.

In 1994, the central government in Jakarta issued a regulation stipulating that land compensation will be settled through negotiation between landowners and investors interested in using the land (Decree of the Minister of Agriculture No. 21 of 1994). This regulation implies that mining investors will conduct direct negotiations with landowners.

In practice, this regulation is not effective in dealing with compensation for cultural land for mining. With regard to the complexity of cultural land ownership, the mining industry would prefer to have local government assistance to mediate with the community. Mediation by the local authority may invite the possibility of power abuse. If this happens, it will end up with dissatisfaction on the side of the landowners.

Intervention in land compensation may take place in the form of direct and indirect repressive measures. The military and the police justify their involvement in the process of land compensation through their function to prevent the possibility of public unrest. The presence of military personnel in the process of land compensation creates a somewhat threatening effect to the landowner. The landowners have no desire to deny any decision taken by the local authority and accept the payment as decided. Such circumstances occurred during the former repressive regime.

The local government and the mining industry perceive such indirect repressive measures as legitimate procedures. The legitimacy of such procedures complied with the political system at the time. When the political situation changed, complaints of injustice in the process of compensation appeared and reappeared.

#### **1.4.4 Sustainable Value in Compensation**

The basis of land compensation is present value, which is payable in lump sum money. Since the price of land in remote areas is very low, the owners receive money in such a small amount that it may not sustain their lives for long. At the time the community has spent the compensation money, they will return hardship caused by structural poverty. In hardship the landowners will find themselves in deep need of sustainable resources to subsist, whereas their land has been surrendered for mining.

It is the opinion of many social experts that land compensation should contain sustainable value for the landowner. In certain areas, there is an expectation in the community to share the mining company's fortune through equity sharing in the venture. The mining community in general does not perceive this idea as a positive solution for both the industry and the community, since equity sharing is a relative value dependant on stock market fluctuations. In addition to its financial complexity, stock ownership involves complex legal and formal procedures, which may not be comprehended in detail by the community.

Another form of sustainable value in land compensation is the distribution of revenue percentages to the community. A large-scale mining operator in Indonesia donates 1% of its revenue to the community for establishing sustainable sources of income in the area. However, the general mining operators do not seem to agree with this policy due to practical reasons. Besides financial reasons, distribution of revenue may cause horizontal conflict in a heterogeneous community.

Another form of sustainable value is the one contained in the community development programs developed by the mining industry. This form of sustainable value may be rationally sensible, but may not comply with community needs, and is progressing very slowly.

#### **1.4.5 Cultural Dimensions of Land**

In some areas of Indonesia, the economic value of land is not always a decisive factor for the owners to surrender their land for mining. According to some tribal beliefs, land has its own cultural dimension. This land-related cultural dimension is believed to be the most important form of tribal identity.

With reference to the cultural dimension of land, compensation may have an implication on cultural values, which are not always exchangeable with economic or financial values. Regarding this issue, members of the mining community are split into two different perceptions. The majority of the members of the mining community believe that land cultural value would not be a problem if land compensation were satisfactory. Some other members perceive cultural land ownership to be a serious obstacle to mining investment in Indonesia, which should therefore be abolished.

In many areas of Indonesia, a feeling of loss of cultural values causes dissatisfaction in land compensation. This dissatisfaction will reappear repeatedly whenever circumstances allow, which makes financial compensation a never-ending process.

## **1.5 Post-Mining Land Use**

Post-mining land use in Indonesia is not well regulated. Mining Law No. 11 of 1967 and other lower mining regulations only stipulate the responsibility of the mining industry to compensate and conduct land rehabilitation after mining activities. However, there is no provision for the status of land after mining.

Concerning area relinquishment after exploration, mining laws and regulations, including contracts of work for mining, stipulate that the areas must be returned to the government through the Department of Mines. Again, the status of land after being returned to the government is not regulated.

With regard to post-mining land status, land use for mining is full of uncertainty for the landowner. Once their land is used for mining, they will lose the land forever. There is general perception that the post-mining land belongs to the government, and therefore there is no guarantee for the landowners to reclaim their land ownership.

Land surface changes after mining are another threat to landowners. Despite regulatory shortcomings, back filling procedure is not popular to Indonesian miners due to its implication on investment and production cost. In coal mining, there is a great possibility of leaving the excavated areas flooded with acid water. Although the rehabilitation of mined areas is acceptable from an environmental point of view, economically and culturally it has no capacity to fulfil the landowner's sustainable interest.

## **1.6 New Initiatives and Policy Trends**

The Agrarian Law No. 5 of 1960 acknowledge that dualistic land regulatory framework still exists in Indonesia. One framework is derived from and influenced by western land systems that promote economic values and private land ownership. The other framework is based on cultural values and cultural ownership.

It is mentioned in the explanatory chapter of the Agrarian Law No. 5 of 1960 that this law was heavily influenced by western values. The implication of western influence on this law has created policies and accumulation of thought that is in conflict with the interests of the people. It is also mentioned in the explanatory chapter that if new agrarian laws and other laws regulating land use were issued in the future, they should be based on cultural values and ownership. However, it is also noted in Law No. 5 of 1960 that the cultural values should not be in conflict with modernisation, national unity, and the national interest, as well as international concerns.

The aforementioned message from the existing Agrarian Law or Law No. 5 of 1960 is now gaining in popularity. In the last three years, in line with the process of political and legal reforms, the pendulum of land ownership is swinging toward recognition of cultural land ownership. Regulations at lower order, such as ministerial decrees, have been issued to support such recognition. It is, therefore, very important for the mining industry to anticipate fundamental changes of land ownership that may implicate mining investment in the future. Some mining large-scale companies have taken initiative to recognise cultural

values of land by implementing recognition program. Recognition program is basically a long term and programmed sustainable compensation, which main objective is to strengthen the capacity of the local community.

## **CHAPTER 2: COMMUNITY RELATIONSHIPS**

### **2.1 Introduction**

Issues related to communities cover broad spectrum of aspects including culture, poverty, environment, land use, politics, and governance. These issues are reflected in two areas the mining industry is concerned with: community involvement and community development.

The major issue the mining industry is facing at this moment is community acceptance. Social acceptance is at this moment and in the future will surely be a survival issue for the mining industry in Indonesia. It is only logical if all effort were directed toward the changing of policies and strategies that will promote social acceptance of mining. However, the low social acceptance of the mining industry in Indonesia is a complex issue, the nature of which depends on many factors inside and outside the mining industry.

Improvement of social acceptance would largely depend on the ability of the mining industry to establish positive relationship with community within regulatory and cultural framework. The following report on community relationships presents perspective, background, and analysis of various aspects influencing relationship between the mining industry and the community. The report focuses on two issues, which are crucial to the acceptance of the industry: community development and community involvement. The improvement areas to be analysed are government regulation as well as policies and practices in the industry.

### **2.2 Government Policy**

The government lack of interest in social aspects of mining is well reflected through the structure of the Department of Energy and Mineral Resources (formerly the Department of Mines and Energy). There is no single agency (not even a desk) in the DEMR which deals with social aspects of mining. In the event of dispute between a mining company and community, the Legal Office in the DEMR involves in the process of dispute settlement by collaborating with the local government. In many cases, however, the government was on the company's side representing the interest of investment.

The government has not established a policy framework to accommodate social aspects of mining. Social aspect in mining is commonly approached through the narrow corridor of Environmental Impact Assessment. Consequently, social aspect would only emerge on the surface in the process of environmental mitigation. The relationship between the mining industry and the community, therefore, has never been in the framework of social development. All aspects of relationship are concentrated on compensation, rather than on social transformation. Lack of positive approach toward community has created perception

that community is a liability to the mining industry rather than an asset for mutual benefit relationships.

Another approach that has created a deep gap between community and the mining industry is assumption that the government (both central and local) would automatically represent the interest of the people or community. According to this assumption, the mining industry believes that it would be in a better situation if it were dealing with and through government agencies rather than having direct communication with the community. Although this belief remains strong amongst the government officials, the industry is increasingly aware of the need for having close relationships with the neighbouring communities.

A government general policy framework is a necessity for establishing a positive and synergic relationship between the mining industry and community. With the existence of social policy framework, community issues, such as community development and community involvement can be effectively incorporated into various regulations concerning mining investment. With the absence of such policy framework, issues concerning community development and community involvement have been circling around the lengthy pro and con debates. Although the mining industry has accepted the importance of having good relationship with community, the continuing debate on social obligation would create investment uncertainty due to distorted perception of the position of mining in the society. As an example of the influence of the absence of the policy framework, million dollars community development voluntarily conducted by mining companies is not well accepted by public at large, because of its unclear objectives.

## **2.3 Fundamentals of Mining Exclusivity**

### **2.3.1 Regulatory Consequences**

It is common knowledge that foreign investors control most mining operations in Indonesia. Foreign investment in mining is governed by the Contract of Work (CoW) system, which is an exclusive regulatory system specially designed for mining. CoW is the only contract in natural resource development signed between private investor and the government of Indonesia. In the CoW system, the investor acts as contractor to the government to develop mineral resources.

In addition to its naturally character, exclusivity of the mining industry in Indonesia is enhanced by the CoW system. The CoW is immune to any change of rules and regulations, otherwise stated in the contract. All provisions of rights and obligation of the contractor are nailed down for the duration of the contract, which is thirty years. From the point of investment interest, this character of the CoW is very attractive because of its certainty. On the contrary, the nailing down of all provisions may offer inflexibility to possible social changes and other circumstances, which are not fully under the control of the government. With this rigid CoW, the mining industry is bound to be stuck in one strategy in facing changes of business environment.

The formal position of mining investor as contractor to the government implies that the mining industry is to be relieved from any social obligations. It is still a popular belief

amongst Indonesian mining community that the mission of a mining company is mainly profit seeking, while social endeavor is the government's domain.

The investment time frame stipulated in the CoW is relatively tight, consisting of a one-year general survey period extendable for another year, a three-year exploration period extendable for two years, a two-year feasibility study period extendable for one year, a three-year construction period, and a thirty-year production period. Due to these time constraints, most mining investors ignore the importance of community relationships during exploration. Community relationship is to be dealt in the production period. According to this belief, relationship with the local community is only worthwhile when exploration were proved to be successful.

There is a strong perception that community relationships established by the mining industry is has no genuine objective and manipulative. Some mining companies having short mine lifetimes are to be held responsible for creating such perception. For practical purposes, mining companies having less than ten years mine lifetime tend to establish community relationships through local government or local (village) authorities rather than having direct relationship with the community. Relationship between mining company and local authority tends to be lack in transparency, which in turn creates deviation of community interests and needs.

### **2.3.2 Pre-Production Community Relationships**

Late commencement of community relationship in the production stage is one of the sources of dissatisfaction amongst members of local community.

Adverse impacts of exploration activity, especially impacts to socio-cultural life, are rarely addressed. There two common reasons for not addressing socio-cultural impacts during exploration. The first reason is the absence of formal procedure for addressing environmental impacts during exploration, since formal environmental impact assessment is conducted prior to the construction stage. Secondly, most mining companies tend to be reluctant to get involved in the community affairs before production stage.

In reality, activities at the exploration camps, traffic of personnel and equipment using land vehicles and helicopters, televisions used for entertainment, food consumed by exploration personnel, and the presence of expatriates are all new and unusual experiences for most communities in remote areas. Logically, in poverty and scarcity, the local community would feel excluded from "the party of abundance" shown by the exploration activities. In the process of community exclusion during years of exploration may be responsible to the creation barriers between the mining company and the community that will continue into the period when mining activity were enter production stage.

Ignorance of the importance of community relationship in the earlier stages of mining activity is reflected on the physical infrastructure and facilities built during the construction stage. Road, tailing pipelines, water channels, airstrips, and even fences are constructed in such a manner that those facilities completely close off any possible access to and from the

surrounding community. This kind of isolation would make communication with community impossible.

There is a common perception amongst the local people that the mining industry is indifferent to the local community. This perception is the consequence of the community's cumulative expectation of receiving some benefit from the mining industry during the exploration period. When mining activity has been in the production period, the community found themselves completely isolated from the source of expectation. Disappointment built up during exploration and the feeling of being isolated from those exploiting their natural resources has created hostile feeling toward mining. It is not a rare occasion that the people become troublesome at the early stage of production stage. Establishing a relationship during the earlier period of project activity will give ample room for both the mining project and the community to create mutual understanding and thus over-expectation during exploration can be avoided.

Members of the local community in the rural areas in Indonesia mostly live in structural hardship and scarcity. They need certainty and security more than abundance in life. Any opportunity is expected to give security and certainty of life. When the first team of geologists steps in their area to establish exploration camp, the people have already thought of having an opportunity to improve their lives. Whenever exploration fails to fulfil the living expectations of the community, the fundamentals of a good relationship in the future are difficult to establish.

## **2.4 Employment for Local People**

### **2.4.1 Expectations**

Because of their low level of education and lack of skills, the local people gain little benefit from employment opportunities offered by large-scale operations. Forestry, mining, and plantation are mostly mechanized and short-term, hence offering few employment opportunities to the local community. Mining industry in many ways is more attractive to the local people due to its affluent character. There is perception that being employed by the mining industry is a lifetime opportunity to prosper and to be prestigious. This high expectation ends up in disappointment when they are confronted with the fact that there are limited opportunities for them to be employed in the mining industry.

As stipulated in the CoW, the industry is encouraged by the government to give priority to the local community for employment. To meet the company's standard job specifications, the Contract of Work also encourages the industry to conduct skills development program for local people. However, due to the limited education and lack of motivation, skills development program in many ways fails to fulfill the people expectation.

Employment in the mining industry has raised such high expectation amongst local people, resulting negligence of the more sustainable sources of living, such as agriculture, small-scale plantations and industry. In the event that the people are employed in the short lifetime mining, the neglected production assets and facilities such as land, rice fields,

irrigation, and even traditional skills would hamper effort to sustain prosperity in the post-mining period.

### **2.4.2 Priority**

Another potential conflict created by employment opportunity in mining is a competitive approach in recruiting locals practiced by the mining industry. Some mining companies practice a competitive approach in filling vacancies for unskilled labourers, which are open to local/indigenous people as well to the labour force coming from outside. This competitive approach tends to create disappointment among the local people, who are mostly under-qualified.

One possible option applicable to this situation is a discriminative approach, which gives local people priority to fill vacancies. For certain job specifications, pre-employment training is a practical option to raise the level of capability of the locals to compete with the incoming workforce, although it is rarely conducted by mining projects with short lifetimes.

Competition occurs not only between the local workforce and the incoming labor force, but also between members of different ethnic groups dwelling in the areas around the project. Although discriminative recruiting approach might be applicable to resolve the potential problem, the company might not take the political risk to practice discriminative approach to different ethnic groups. The best route normally taken by both the company and the local government is to take no action, not even bringing the potential problem to the table. This “no action decision”, however, is not always the safest decision. When the time comes, conflict is inevitable.

Employment for locals is wide open during exploration and construction periods. Employment during these two periods is on an ad hoc basis and is short term. Upon completion of construction, redundancies will surely create social problems. The high expectations of the local people to be employed permanently by the industry normally end up in disappointment.

### **2.4.3 Incoming Workforce**

During the construction period, the project needs workers in large quantity; consequently, the incoming workforce is welcomed. However, after redundancies occur, the incoming workforce stays and establishes temporary settlements in the area around the project. The incoming workers are from all over the country and seek any kind of available employment.

Subcontractors to the mining project employ them on a short-term basis during the construction period. Some workers are re-employed by the subcontractors and the mining companies, while others remain unemployed and stranded. Some of them even settle themselves, doing small-scale service businesses, trading, and even growing crops.

Incoming workers dwelling in these settlements create large and serious implications in the community’s relationship with the mining industry. Settlements built by incoming workers grow quickly and uncontrollably. In a short time, settlements grow from few houses to

exclusive villages and even small towns. The land on which they build settlements is either community land or land that has been compensated by the mining company for a mining area. The settlement places a great deal of social pressure on the industry, the local government, and the neighboring communities. Because of the social pressure, the settlement receives greater attention from the local government and the mining company. In turn, the local communities perceive this special treatment as discriminating. The local communities feel that they have sacrificed a great deal but received less from the development of mineral in their areas. By then, potential conflict with the mining industry is inevitable.

## **2.5 Implications on Cultural Values**

### **2.5.1 Increase of Accessibility**

Cultural implication of the existence of mining is rarely addressed in the project. Environmental impact assessment (EIA) of a mining project concerns more with physical impact and less on social-cultural impact, which is more complex. It would hardly be possible to predict socio-cultural impact of a mining project without comprehensive community involvement in the process of environmental impact assessment. According to the CoW, the mining investor is given 12 months, and extendable to 24 months, to prepare feasibility study and EIA. During that time, it would not be possible for the investor to conduct a comprehensive socio-cultural study involving the local community. Therefore, during the early years, socio-cultural implications of a mining project are neither predictable nor understood by the mining industry in Indonesia.

There are many sources of impact generated by mining industry, the important ones are settlements established by the incoming workers during the construction period, increase of area accessibility and non-traditional economic activity. Land use by mining may also implicate the socio-cultural life of the local community due to loss of traditional job and relocation of settlement.

Impact of mining on socio-cultural values may lead to prolonged and complex social conflict. Because of insufficient understanding of the impacts, the mining industry prefers to resolve the conflict through formal procedure, normally through local government mediation. The formal route of resolving cultural impact is ineffective and in many ways counter-productive. By taking the formal procedure in resolving cultural conflict has placed the mining industry in a constant conflict with the community.

One of the disadvantages of formal resolution of cultural conflict is the absence or lack of laws and regulations to justify decision that may satisfy both parties. Therefore, the decisions taken would normally rely on the discretion of the local authority. The second disadvantage of the formal procedure is the possibility of outside interests, would it be legal advisers, activist or just a local “smart guy”.

By studying most conflicts between mining and community in Indonesia, it is apparent that the main source of conflict is on land issues. The standard resolution of land conflict is to compensate the economic value of land. Learning from experiences, economic

compensation is not always an effective way out, however justified it seems from economic point of interest. It is the cultural value of land that is missing from the formal settlement. To cover the cultural values of land the mining industry should take another route of settlement, which is cultural route. According to social experts, conflict settlement through cultural approach would be the most effective procedure. However, taking the cultural route would need time and deep understanding, which the mining industry is short of. An early and sustainable community relationship is a necessity.

In establishing sustainable community relationship, the mining industry would need to “get into” the community along a cultural corridor and the rest of the business would be rolling accordingly. The mining industry would not need to provide social experts to communicate with the community. By “getting into” the community along cultural corridor, the mining industry indirectly has practiced a community based mining industry, which would guarantee harmony.

Instead of developing community-based mining projects, however, the industry prefer to “bring to community outside”, by establishing a company sponsored institution for communication, amongst others are foundation, which is fully controlled by the company or jointly managed with community prominent. It is understood that the reason behind the establishment of such exclusive institution is to make both the community’s interest and the company’s resource flow manageable. Economically this reason may be valid, but not culturally. In terms of community reality one cannot separate economic values from cultural values.

### **2.5.2 Cultural Transition**

There is a general perception that cultural value can be traded for financial compensation. This perception has been created for practical purposes and used as a method of ad hoc problem resolution. Using this approach for structural problem resolution may lead to great potential conflict in the future. Most existing land conflicts tend to contain hidden loss of cultural value, which cannot be compensated. Aside from its economic value, land is also a socio-cultural habitat for some communities. When their land is taken away, their cultural identity is blurred. The hidden loss cultural values will emerge at the time when the financial values have lasted.

The academic and mining communities perceive that cultural transition will occur automatically in the mining areas as a result of the positive impact of mining activity. This assumption would only be true if there has been a harmonious relationship between the industry and the community since the beginning of mining operations. Land acquisition by the mining industry creates a negative sentiment instead of a harmonious relationship. In combination with a strong culturally devoted lifestyle, this negative sentiment is an effective mean to create conflict.

The incoming workforce in mining area creates pressure on local cultural life, but this pressure is not an effective factor to create conflict with the local community. Instead, the existence of the local workforce may escalate conflict between the local communities with the mining industry. In short, the mining industry is held responsible for the present of the

incoming workforce. The incoming workforce, however, may have some positive influences on the cultural lifestyle of the local community. The reason behind this phenomenon, is probably, the cultural flexibility of the multi cultural the incoming workers. In another word, they are not culturally exclusive and are more community based.

Cultural transition as an impact of mining should be designed prior to and maintained through the mine life. It is wished by the people that positive cultural transition occurred through an internal process within the community instead of being imposed by the mining industry. Large-scale mining companies tend to development initial social program that is not in compliance with the local culture. In the later development, after experiencing trial and error process, they modify the program to suit the local culture. However, most mining projects in Indonesia do not have lifetime long enough to do trial and error process.

Mining projects of shorter lifetime do not are mostly too busy with technical problem and the economy of the project does not justify long preparation for social survey. During operation their focus is on getting return on investment as soon as possible.

The state-owned mining companies are mostly successful in creating positive social impact that creates cultural transition. This success is probably due to they long history of operation in one area. Tin mining in the tin island of Bangka, Belitung and Singkep, nickel mining in South Sulawesi and coal mining in South Sumatera has been operating for decades. Another reason for this success is the more national oriented social policy practiced by the state-owned mining companies. Highly acceptable by the community, the state-owned mining companies have been successful to create cultural transition in almost naturally.

## **2.6 Community Development**

### **2.6.1 Poverty and Scarcity**

Mineral-rich lands in Indonesia are mostly unsuitable for agriculture because of their high acidity, rocky area, or consist of alluvial clay and sandy material. In these areas, the local people are normally very poor and subsist on the traditional extraction of natural resources, such as forest products, freshwater fisheries, crops, panning for alluvial gold, or mining industrial minerals.

Indonesia has been practicing centralized mineral resource allocation system for more than thirty-year. In this system, the local interest is not of the government concern. Within the allocated areas allocated for mining, the traditional economic activity is not always possible, and in some situation the people are displaced to another areas. Without land and losing their traditional source of income, the poor people loose their hope for the future. According to the perception of the local people, this situation is only the first impact of mining to the life of the local community.

The second impact is environmental damage caused by mining. Pollution of rivers, costal waters, and lakes implicates the economic as well as the physical life of the people. The level of poverty is worsened by the environmental impact of the mining industry. Impacts of

mining have resulted desperation amongst the people who are already in poverty due to natural scarcity.

There is great hope from the local people that the mining industry would break the vicious circle of structural poverty in the mining areas and that is what community development should about.

### **2.6.2 CD Acceptance**

The Contract of Work of earlier generation (I, II, III and IV) stipulates that the contractor is obliged to help local community to develop business. However, there is no provision concerning obligation to conduct community development program. In the CoW of later generation (V, VI and VII), the investor is encouraged to conduct community development.

Although CD is not tightly regulated, its importance is now widely recognised by the mining industry. Most mining companies in the production stage implement community development programs to some extent. The intensity and the volume of the CD program is dependant on the scale of the mineral reserves discovered, and thus also dependent on the lifetime of the mine operation. Obligatory or voluntary, it is obvious that CD is not completely rejected by the industry, as it was before.

The acceptance of CD by the industry complies with public expectations. It seems that the controversial issue concerning the formal status of CD (regulated or voluntary) is fading away. However, lack of regulation and guidelines from the government has many implications on the implementation of CD.

The absence of government social policy framework and the voluntary nature of CD, have made CD implementation separate from the integrated planning of mining project. Most mining companies do not even think of CD as a strategic issue. The fact that CD program is separate from other strategic planning has made most CD programs ineffective, in terms of the interest of the people. There have been many complaints from the mining companies that they have spent millions of dollars for CD, but all that money ends up with the people's dissatisfaction and conflict. The question is, what has gone wrong?

### **2.6.3 Uncertainties in CD Policy**

The government policy with regard to the implementation of CD is uncertain and ambivalent. On one hand, the government is under pressure to recognize the reality that community is in need for more direct gains from the mining industry. On the other hand, the government is aware of the financial consequences for the industry. Up to now, the legal position of CD has not been decided. This situation has created uncertainty as well as controversy.

With the absence of basic regulation concerning CD, its implementation is completely left to the mining industry. Lacking in the Indonesian experience in general and CD experience in particular, the mining industry implements CD with various objectives and formats. CD program developed by some mining companies even tend to be counter-productive to both

the community and the industry. In many cases, both the objective and the format are responsible for contention and conflict.

The first uncertainty concerns with the target area for CD program. One argument mentions that CD program should cover the contract area retained when the project entered the production period. If this definition is applied, CD will cover an area of hundreds of thousands of hectares. In a highly populated area, this may consist of thousands of villages and hundreds of thousands of people belong to several hundred ethnic groups. Another opinion suggests that CD program should only cover communities, which are in the environmental impact areas. This idea is unacceptable, principally because the objective of CD is not to compensate for environmental impact.

The second uncertainty felt by the mining industry concerns the financial aspect of CD. The first problem is how to define the financial limits of a CD program. Financial limits would not be controllable if they are based on community demand. On the other hand, it is impossible for the government to determine a certain amount of annual budget for CD that based on the localities and the financial ability of the projects. In running CD program, financial position of the projects with limited mineral reserves may not as comfortable as that of the long-life projects.

The third uncertainty is the degree of involvement of the industry in community affairs. In remote mining areas, it is a great problem to make government services available to the community. The theory of tri-partite cooperation (local government–community–company) in CD implementation is therefore not practical in remote areas. In such situations the company is expected to function as the government. The response of the industry to this expectation is unclear, but normally it is considered as not in compliance with company policy or the company's capability. However, failure to anticipate this expectation may cause ineffective social function of the company.

The fourth uncertainty is the objective of CD. The objective of CD will determine the suitable model as well as the specific type of CD project. Uncertainty of objective implicates the effectiveness of a program. The mining industry has never been given guidance or policy regarding the objective of CD. Some company decided that education is important objective, and others develop health improvement programs as prime objective. In absence of the government guidance, the best way is to get the community involve in the process of decision making to determine what they feel important.

#### **2.6.4 Perception of the Mining Industry and Community Expectations**

CD is gaining more and more acceptance in the mining industry. In terms of CD acceptance by industries, the mining industry is probably second to none. In absence of legislation concerning CD obligation, the industry has taken a progressive initiative in this area.

Despite its acceptance of CD, the mining industry is in constant conflict with the community. The question is what is to be held responsible for this reality. Learning from

experience, it is the mining industry's perception on CD that is responsible for creating community dissatisfaction to CD program in general.

The industry's perception of CD has wide implications on its implementation. A company's perception influences its policy in setting objectives, selecting projects, establishing social institutions, budgeting, managing the process, selecting personnel in charge, and so on.

In general, the mining industry perceives CD in an egocentric perspective. The CD objective, format and the kind of project developed are all determined from the mining company's point of understanding and interest. Reluctance of the mining industry to involve the community in the decision making process is responsible for the egocentric way of making decision concerning the CD issues.

### **2.6.5 Success Factors**

Certain mining companies boast their CD success in terms of dollars they have spent for CD program. Some other companies implement certain business model development for local people, which is criticised as being the source of horizontal conflict. Some mining projects with limited mineral reserves tend to perceive CD as an action to entertain community's ad hoc needs. Some other companies conduct CD for their (international) public relations purposes.

A deep gap occurs between general CD practiced and the community expectations. According to the general view, including that of government's and the industry's, CD is a mean to distribute wealth. The conceptual framework of CD is thus fall into the theory of trickle-down effect from the large-scale industry to the people.

As described previously, CD is not yet regulated; therefore, implementation of CD is completely left to the industry's initiative. The voluntary nature of CD in combination with the trickle-down effect philosophy has made the community feels that CD program is just to reflect the company's benevolence.

The public at large and non-government organizations have a completely different objective of CD. The local community and the general public perceive CD as an implementation of social justice in a broader sense. They believe that it is the right of the local community to share the benefits of natural wealth developed by the mining industry. Although according to the country's constitution mineral wealth belongs to the state, local communities' right to benefit from the development of natural resources is undeniable. The problem is how to materialise the expectation of having social justice.

There is general feeling in Indonesia that social justice is to alleviate poverty. Therefore, there is wide expectation that CD by the mining industry is the right answer to alleviate structural poverty, especially in remote areas such as Kalimantan, Irian Jaya, and other eastern parts of Indonesia. However, this kind of expectation has never been stated or stipulated definitively in regulatory framework. The question is whether the mining industry would comply with this expectation and have capacity to do so. Unless this question is given the right answer, the role of CD will not be an effective instrument for the

mining industry to contribute to the community, regardless how much resources are spent on CD.

What is meant by poverty is also debatable, but in the context of CD by the mining industry, poverty alleviation can be structured in a more practical program with objective to fulfil the needs of the local community. What the local people need is basically sustainable development of local resources that will continually increase their income.

However, during the process of local resource development, the people are having basic cost of living to be met. In other words, the objective of CD to alleviate poverty can be divided into two phases. The short-term phase deals with the fulfilment expenses for daily needs and the long-term is to improve the quality of life in general. The short term objective of CD can be achieved through offering employment opportunities in the mining industry, small business development, and the improvement of existing production capacity, especially in the agricultural sector, including fisheries, manufacturing, handicrafts, and so on. The short-term program of CD should be related to captive markets in the mining industry.

There will question asked about the willingness and capability of the mining industry to accommodate poverty alleviation as the long-term objective of CD? The answer to this question will depend on the policy and attitude of the individual mining company. Mining projects with long mine lifetime are normally more accommodative to long-term objective than those with short mine lifetimes. The typical reason for denying long-term CD objectives is the financial viability of the project. However, in any cases financial reasons are considered irrelevant and unacceptable to the community.

## **CHAPTER 3: ENVIRONMENTAL PROTECTION AND DEGRADATION**

### **3.1 Introduction**

The present environmental problem in the mining sector in Indonesia is geared around the attitude of the mining industry, which is defensive and insufficiently transparent. This attitude has triggered strong pressure from NGOs, especially those with an advocacy basis. The growth-centred economy in the past and the present multi-dimensional crisis in Indonesia have put the government in a position that leans more to the interests of the industry. The defensive attitude of the mining industry is caused partly by mining legislation that falls behind the advanced environmental principles applied in the existing environmental legislation.

With regard to the natural characteristics of the mining industry and ineffective law enforcement, the defensive attitude of the mining industry to environmental protection has contributed a great deal to worsening of the situation. With the present economic hardship, the controlling role of the local community, in many environmental cases, is blurred by financial compensation approaches applied by the mining industry.

Pressure from NGOs on government agencies has been escalating quite strongly in the last four years. However, the Ministry of the Environment seems to be the only government agency to which NGOs can address their pressure. Due to the process of economic recovery, the other government agencies are less responsive to the environmental issues raised by NGOs. Meanwhile, the process of mining and the adverse consequences continue. Such an environmental situation as is occurring at present has made the anti-mining battle cry even more louder.

### **3.2 Characteristics of the Mining Industry**

#### ***3.2.1 Location of Minerals and Environmental Capacity***

Indonesia is an archipelago, which consists of more than 17,000 islands. Mineral areas are spread out over all islands, including small and very small islands. Large islands, such as Kalimantan and Irian Jaya, are not only endowed with rich mineral resources, but are also covered with rain forests, which are rich in biodiversity. Small islands are inseparable from their marine resources and natural beauty.

Before the 1980s, there was no area in Indonesia declared closed for mining. In other words, it was legitimate to mine any mineral potential in any area of the country. It is only in recent years that basic law on forestry, Forestry Law No. 41 of 1999, restricts the access of mining to certain area. Spatial Planning Law No. 24 of 1992, and Biodiversity Law No. 5 of 1994, if effectively implemented, would be another restriction to mining. In the mining sector,

however, the existing Mining Law No. 11 of 1967, which contains no environmental stipulation for mining, is still effective.

In accordance with Mining Law No. 11 of 1967, allocation of mineral area for mining is practically limitless and without consideration of environmental capacity. In the event that mineral occurred abundantly all over a small island, the environmental capacity of the island would not be able to cope with the impact of a large-scale mining operation. To make things worse, mining production rate is determined without considering environmental capacity restriction in.<sup>3</sup>

With regard to the large volume of waste materials produced by mining and deforestation required for mining areas, the local community and NGOs strongly oppose large-scale mining operation on a small island. Disposal of large volume waste material (LVWM) of mining operation has been an acute problem in Indonesia. Since there is not enough room for disposing LVWM on land, the existing mining projects operating on small islands tend to resolve tailing disposal problem by practicing sub-marine tailing disposal (STD) techniques. Due to its unprecedented impacts, STD technique is strongly opposed by NOGs and the local community. The battle against STD has been proceeding for several years and would likely to continue in the years to come.<sup>4</sup>

Restriction of large-scale mining in areas of limited environmental capacity, namely small islands is a controversial issue. Those who are in favor of economic role of mining argue that mineral is an important asset of Indonesia that may function to prosper the people. According to this community of thought, mineral resource has no other value but economic present value. Especially for less developed remote areas, mining is the only opportunity to develop the areas.

On the other side, NGOs and the local people are of the opinion that mining is not suitable on small islands. They argue that there are still many other local resources to support economy development of small islands, including untapped marine resources and tourism. If minerals are to be developed, the mining scale should be adjusted to comply with the environmental capacity of the island. It seems that the central government would always be in the position to promote mining investment in any part of the country without restriction. Therefore, arguments on mining restriction would never come to an accord, and the mining industry, consequently, would never be in peace.

### **3.2.2 Deforested Mining Areas**

The inter-relationship between mining and forests has been a controversial issue since two decades ago. The mining community argues that deforested areas caused by mining are much less than those caused by logging industry. They conclude that mining industry is less

---

<sup>3</sup> Copper and gold projects operated by PT Freeport Indonesia have increased the rate of production ten-fold within ten years (from 32,000 tonnes per day in 1991 to 300,000 tonnes per day in the present year). This project, which is located on mountain ridges, has a problem of disposing of tailing and waste rock material due to a limited disposal area.

<sup>4</sup> Gold projects in Minahasa operated by Newmont and copper and gold projects in Sumbawa operated by Newmont use STD, which are strongly opposed by NGOs and the local community.

harmful to the environment than the logging industry is. NGOs and other stakeholders have a different perception concerning deforestation by mining.

Mineral potential in Indonesia is economically suitable to open pit mining system. It is a common practice in Indonesia that mining companies do not conduct backfilling in open pit mining. Tailing and waste rock are dumped somewhere else, including in forest areas, leaving the excavated open. Consequently, mining activity will create two abandoned deforested areas: tailing disposal areas and excavated areas. Rehabilitation of the abandoned mine site does not always include these two areas. From the environmental point of view, environmental impact of these two areas is irreversible.

### **3.2.3 Large Volume Waste Materials**

Mining activity discharges a large volume of waste, comprised of tailing, waste rock, and overburden materials. Disposing waste materials has on land has become increasingly difficult due to less space available. Local morphological features are not always suitable for construction of conventional tailing dam disposal system. Recently, the mining industry tends to shift its attention to sub-marine tailing disposal (STD) system.

It seems that STD is an interesting option for mining operator due to its low cost operation. However, STD system is not convincingly justified as an environmentally safe system. Debate on STD has place the government in a difficult position, since STD is only justified by data provided by the mining company practicing STD. The safety argument put forward by the government officials and the mining industry is mostly based on experiences in the other country. The mining industry guarantees that the STD will be implemented prudently, so that environmental hazards will not occur.

Controversy over STD will continue in the days to come since it is not yet regulated and those opposing STD have no capacity to prove the system's possible adverse impact. The only party having the capacity to monitor the possible impacts of STD is the company practicing it. The engagement of third party to present objective data concerning STD impacts will not be effective because of independency problem. Due to economic reasons, the government is the industry on the favor of the investor.

## **3.3 Structural Weaknesses**

The existing mining policy and legislation system in Indonesia is based on phases of mining activity, which consist of general survey, exploration, construction, and production periods. This approach may be effective for regulating technical activity of mining, for example, for acquiring permits, for providing investment facilities, for taxation purposes, etc. This approach shows its weakness when applied on environmental management.

The existing regulatory system for mining is based on mineral economic, which is based on input-out equation in terms of capital investment. During exploration, for example, mining company is in the period of non-profitable activity and therefore is not liable to any obligation that may expose the company to extra financial burden. Environmental protection and community development, for example, are assumed non-productive.

Therefore, obligation to conduct Environmental Impact Assessment (EIA) is due when the company is entering construction period.

The following procedures indicate the weaknesses of the current mining regulations concerning environmental protection:

1. Not a single regulation stipulates obligation for collecting environmental related data during exploration. A comprehensive EIA would need sufficient and accurate environmental information, which partly should be collected when the company is in the exploration and feasibility study phase. Absence of this kind of stipulation implicates the effectiveness of EIA conducted during feasibility study period. It is unlikely that a mining company would collect environmental information consciously and thoroughly before exploration yields a positive prospect of mineral potential. Companies with less strong financial capability, in particular, tend to be less concerned on collecting environmental information during exploration and feasibility study phases, which only two years maximum, is too short for that purpose.
2. No single mining regulation stipulates that mining project should be judged on its economic as well environmental viability. In many cases, therefore, EIA and feasibility are not inter-related, event irrelevant to each other. The irrelevancy of EIA and feasibility study is encouraged by the separate approval procedure. The feasibility study is approved by an inter-departmental meeting chaired by government official responsible for promotion of mining investment, while EIA is approved by a permanent environmental committee chaired by senior official on behalf of the Minister of Energy and Mineral Resources.
3. It is not obligatory to conduct EIA for exploration activity. In cases where exploration activity interacts intensively with the environment, the project is vulnerable to creating important impacts on the environment without control.<sup>5</sup>
4. According to CoW, construction period is three years, during which the company should complete construction and proceed to production period. The allocated three years are mostly spent for physical works, including import procedures and land acquisition. There is question asked about the time for engineering preparation for construction. It is likely that engineering design was prepared long before EIA is approved. The fact that there are many environmental and social problems created by physical facilities proves the irrelevancy of the engineering design to the local situation.

Improvement of the above-mentioned structural weakness is a necessity, if mining were expected to be more acceptable to the community. These structural weaknesses in the mining legislation have created public distrust to the mining industry and the government agencies. Allegation of corruption in relation of EIA approval is inevitable, which is not always true.

---

<sup>5</sup> Bulk sampling during the exploration period on alluvial diamond prospecting by using dredging is granted by the contract of work. According to the existing regulations, dredging operations for exploration purposes are not obliged to conduct full EIA. An example of such a case is the diamond project in South Kalimantan.

## **3.4 The Mining Industry's Conservatism**

### **3.4.1 Transparency**

Lack of transparency in the mining industry is a factor responsible for ineffective communication between the mining industry and the public. There is a wide difference in the interpretation of transparency. The mining industry perceives transparency as a controlled flow of official information from mining company to the public. It is, therefore the right of the company for releasing or not releasing information concerning environmental issues. The public, however, perceives transparency from other perspective. According to this perspective, the people has the “right of the people to know” or the right to gain information concerning aspects that may have effect to their lives. The mining industry perceives transparency as a reflection of good will and therefore should be voluntary. The people, on the contrary, perceive transparency as stipulation of “good governance principles” in a democratic system, and therefore should be obligatory.

Environmental Law No. 23 of 1997 (article 5 paragraph 2) stipulates that everyone has the right to information concerning environment. This stipulation has not been accommodated in the mining legislation, including CoW, and implemented in mining practices. Environmental Impact Assessment (EIA) reports and data obtained from environmental monitoring and environmental audits, for example, are not always available to the public. Some mining companies tend to be secretive about environmental accidents. The mining industry argue that as the contractor of the government, a mining company's obligation is to submit information to the government and it is at the government's discretion to disclose information concerning mining activities. The government is in many ways reluctant to release information concerning environmental issues due to assumption that such information is confidential.

### **3.4.2 Legalistic Compliance**

According to the Mining Law No. 11 of 1967 and the Contract of Work system, the status of mining company is a contractor to the government. All the obligations and the rights of the contractor and the government are stipulated in the contract of work, which are nailed down for the duration of the contract. Concerning environmental protection, the mining industry has to comply with the prevailing laws and regulations.

However, stipulations in the laws and regulations concerning environmental protection were not specifically designed to accommodate environmental problems in the mining sector. When applied to the mining industry, these general environmental laws and regulations contain numerous loopholes. It is not so much that the mining industry takes advantage from the loophole that matter, but it is the mining industry's lack of initiative that makes environmental protection ineffective. This lack of initiative has made the mining industry to take defensive position by using regulatory compliance as the only defence mechanism.

With regard to environmental protection, there are many aspects of mining that are specific and completely different from other industries. For example, mining is an operation with

multi-charge point, instead of single discharge point as in the manufacturing and processing industries. Deforestation in mining is caused by two sources, one as an impact of waste disposal and secondly caused by land clearing for facilities and mining areas.

Because of the uniqueness of mining, integration of environmental stipulations in the mining legislation is a necessity. Through legalistic integration, environmental protection would be integrated into mining operation as one the aspects of the mining industry. Regulation on tailing disposal procedures, for example, is available as technical guidance, which is not covering the decisive factors in mine planning or choice of mining method that are required for effective environmental management.

Mine closure is a process, which is not separable from the overall mining operation, and therefore should be integrated into the process of mine planning and blended into the overall economic considerations of the project. With regard to environmental and social management, mine closure should not be legislated separately as the late process of mining.

In the situation of lacking integration of environmental aspect in the mining legislation, it would be effective of the mining industry to just comply with regulation. Relying on regulatory compliances would be sufficient for the mining industry to increase social acceptance. Initiative in improving environmental management is a necessity.

The only law binding compliance concerning environmental management for mining industry is EIA. However, EIA in general, and particularly in mining, has lost its credibility as an environmental controlling instrument. The loss of credibility of mining EIA, among others, are influenced by the following weaknesses:

- According to the existing regulations, initiative of establishing EIA comes from the proponent, which is the mining company. The proponent may engage a consultant to conduct environmental assessment, and the assignment of the consultant is fully at the discretion of the proponent. The consultant engaged by the proponent is one of the weak points in the process of mining EIA. The possibility of having an unqualified consultant or a consultant of low integrity is in many cases inevitable. Due to financial reasons, mining project with short mine lifetime is not interested in hiring qualified environmental consultants. Large-scale mining projects, on the contrary, prefer to hire foreign consultants. In terms of transparency, the hiring of foreign consultant for environmental study is not always advantageous to the mining industry.
- Most environmental consultants in Indonesia are not fully familiar with mining industry and its aspects. It is a common practice in Indonesia that environmental consultant is not staffed with senior mining professionals, who are familiar with and have extensive experience in the mining industry. This situation results an EIA of low effectiveness, which is normative and academic.
- The process of EIA approval is another source of weakness of EIA in mining. As described previously, approval of EIA is conducted by the Environmental Impact Control Committee, whose members are representatives from various ministries, local government, NGOs, professionals/experts, chambers of commerce, and members of a Technical Commission from the Department of Mines. The membership of the EIA committee places more emphasis on institutional representation rather than on

professional familiarity with environmental problems in the mining industry. As the result of uncertain qualification of the members of the committee, the approved EIA, in many serious environmental cases, cannot cope with the problem or even irrelevant at all. Such situation has created dissatisfaction and suspicions of the government capacity to control the mining industry.

- The time spent for conducting EIA is too short, which is jammed between feasibility period and construction period. In normal situation, the mining company rushes for EIA approval, which is needed to proceed to construction phase. Time for site survey is not sufficiently long to collect primary data through experimentation and communication with the local people.

### **3.4.3 Environmental Management Principles**

The NGOs are of the opinion that impacts of mining on environment are very complex and sources of emission are not always easily located. Therefore, it is not fair to rely solely on legalistic compliances, particularly on EIA, which have a great number of weaknesses. Therefore, the mining industry should also practice the general principles in environmental management, which are, in many cases, absent from EIA. Most mining companies are not fully aware of the importance of practising precautionary principles and strict liability principles. If these principles were practiced, mining companies need to be more informative concerning their environmental management. Lack of transparency in the environmental management would decrease suspicion and negative allegation in the event of environmental accidents.

One of the important aspects of the strict liability principle is the burden of proof. According to traditional criteria, the burden of proof should be placed on that party possessing the greatest ability to provide evidence and thus the greatest ability to produce evidence. The party possessing the greatest ability in this case is the mining company. However, in many environmental conflicts, the government tends to place the burden of proof on the party accusing the mining company causing environmental pollution. By not following the criteria of strict liability principles, the government is vulnerable to lose its credibility. Data collected by mining companies to provide evidence, is not always acceptable to the public due to lack of transparency in the process of data collecting.

### **3.4.4 Self-Assessment and Internal Standard Operating Procedure**

The government and the community expect the mining industry would take initiatives in the protection environment. Such high expectation is based on the following considerations:

- Location of mining project is normally too remote for other parties, including the government official, to conduct inspection and survey. In those remote areas, all facilities, which other parties would depend on, belong to the company. Without being facilitated by the company, the area would not be accessible by outsiders.
- Environmental impacts of mining are dependant of so many factors integrated in the mine planning and investment decisions taken long before commencement of mining operation. Therefore, impacts of mining are mostly unprecedented and complex in nature, which other parties may not be familiar with.

- There is high expectation that the mining industry would be aware of the long-term effect of its current environmental reputation of mining to the existence of mining investment in the future. The mining industry is expected to change its environmental philosophy from fighting against NGO's, the local public and other critics to fighting for the future of mining.

Response from the mining industry to those expectations is negative and in many cases, the mining industry remains defensive instead. Self-assessment as part of sound environmental management has not been initiated as expected. It was conducted, some large-scale mining companies have shown their initiatives to conduct self-assessment in the form of environmental audit, the process is not fully transparent.

The mining industry tends to perceive environmental self-assessment as an extra-legalistic effort, which is not law binding. On the contrary, according to the general public's perception, self-assessment is a demonstration of honesty and sense of responsibility of the mining industry in dealing with the environment.

Article 28 of Environmental Law No. 23 of 1997 stipulates that in order to improve its performance, the government encourages the industry to conduct environmental audits. Article 29 paragraph (1) further stipulates that the Minister (of Environment) has the right to force a company to conduct an environmental audit if he sees the situation fit for him to do so. Paragraph (2) of article 29 also stipulates that in the event that the company does not comply with the minister's order, the minister has the right to conduct an environmental audit at the company's cost, which is determined by the minister (paragraph 4). It is the right of the minister to make the audit report public (paragraph 5).

Stipulations in those two articles of Law No. 23 of 1997 are unsatisfactory to the NGOs and the public, since it paints a bleak picture of the possible public participation in environmental audit. The public demands that environmental audit in mining be conducted in transparent process involving the stakeholders. The mining industry, on the contrary, feels that as an extra-legalistic effort, an environmental audit is an internal affair, which does not need the stakeholder involvement.<sup>6</sup> It seems that these two perceptions of environmental audits will not come to an accord very soon. If the situation prevails, the credibility of environmental audits would remain very low.

### **3.4.5 Internal SOP**

Every company is equipped with an internal standard operating procedure (SOP). In the mining industry, SOP on safety is placed in a central position, and well disseminated over all

---

<sup>6</sup> Even the obligatory EIA process is conducted without stakeholder (community) involvement, except during presentation for approval in the EIA commission. In 1999, a large-scale coal mining company invited international consultants to conduct an environmental audit. This audit, conducted silently, was to comply with funding requirements from financial institutions. Another large-scale mining company in 1999 advertised the report of an environmental audit, conducted by international consultant that resulted in strong reactions from the Ministry of the Environment and the public. These strong reactions were triggered by the fact that the advertised audit reported an excellent performance of the company.

activities within the company. Every person in the company has responsibility to comply with safety procedures.

Similar SOP for environmental protection is not fully practiced in the mining industry in Indonesia. Consequently, environmental awareness is not well disseminated over all mining personnel. It seems that environmental protection is solely the responsibility and the duty of the department of the environment of the company.

Environmental SOP may function as an effective instrument to promote environmental concern within the company. It should be obligatory for personnel in the company to abide environmental SOP as much as they do for safety SOP. SOP may also function as compliance for government inspection and routine/periodic internal audits. In short, environmental SOP is an internal enforcement of EIA.

Although it is very important, not many mining companies have established their internal environmental SOP. Many mining companies comply fully with an EIA document, as it is, without any elaboration for implementation through SOP.

### **3.5 Legislative Frameworks**

#### **3.5.1 Mining Legislation and Environmental Protection**

There are two legislative frameworks for mining, the Mining Law No. 11 of 1967 and the Contract of Work (CoW) system for foreign investment. The main purpose of those two legislative frameworks is to regulate mining investment. Those two legislations were promulgated three decades ago, when environmental protection was not of national concern. Since then the mining law has never been amended.

The first law on environmental protection was promulgated in the year 1982 (Law No. 4 of 1982). The Mining Law No. 11, which was promulgated in the year 1967, has no provision for environmental protection. The CoW of earlier generations (I, II, III, and IV), which were designed before 1982, did not contain any provision on environmental protection. The more recent generations (V, VI and VII), however, which was effective after 1991, stipulate that it is obligatory for the contractor to comply with the prevailing environmental laws and regulations.

The new environmental law no. 23 of 1997, which is more progressive, replaced the old environmental law No.4 of 1982. Since this law does not contain any stipulation on mining, environmental management in the mining industry is stipulated in the government or ministerial decrees, which are mostly technical.

The first environmental law was stipulated in 1982, consequently, all mining projects executed before 1982 were designed and approved without environmental considerations. When the environmental stipulations were in effect, the mining process systems have been established and modification would be very costly. The process of current major environmental damages resulted from this situation would not change fundamentally without major changes of the established production systems.

Responding to the on going process of environmental damages, the government is in dilemmatic position. On one end, it seems that the government is aware of the economic consequences in correcting the mining process design, which costly. On the other end, the government is also unhappy with the pressure from the NGOs and public as well as from members of parliament concerning the on going process of environmental damage.<sup>7</sup>

### **3.5.2 Enforcement Problems**

The government dilemmatic position in enforcing laws and regulation concerning environmental protection is perceived by the public as position, which leans to the interest of the large-scale mining industry and ignoring the importance of environmental aspect of mining.

The government weakness in enforcing environmental laws and regulations to the mining industry is also influenced by other factors. The first factor is the incapability of the government in collecting information concerning environmental conditions. In the event of environmental conflict, the government relies greatly on information provided by the mining industry. Normally, the NGO's argumentation or protest is based on alternative information collected by themselves. The government and the mining industry, however, tend to consider information provided by NGOs inferior and unreliable. The government also tends to take the credibility of information provided by the mining industry for granted.

The second weakness in enforcement of environmental laws and regulation is the lack of coordination and integration of the controlling government agencies. The national institution responsible for environmental impact control is the Environmental Impact Management Agency (Bapedal), chaired by the Minister of the Environment, which was established in 1993 according to the Presidential Decree No. 23 of 1993. This agency has its head office in Jakarta and branch offices at all provincial capitals. In general, this national agency is responsible for the technical aspects of environmental impact control regulatory drafting, and involves in environmental dispute mediation and investigation of potential environmental pollution.

The Provincial Bapedal was established in 1994 according to Presidential Decree No. 77 of 1994. Provincial Bapedal is placed under the responsibility of the Minister of Domestic Affairs and reports to the provincial government.

In addition to the national and provincial agencies, the Directorate General of Geology & Mineral Resource (DGoGMR), as an agency responsible for sector development, is staffed with inspectors responsible for supervision of environmental performance of the mining industry. In the event of environmental conflict, in general, the DGoGMR tends to side the mining investor due to its commitment in the process of permit approval, including approval of EIA document.

---

<sup>7</sup> As an example, the environmental damages related to the copper-gold mining project in Irian Jaya (first generation CoW), which is not correctable without changes to the tailing disposal system. Environmental damage caused by tin mining, which has been active for more than fifteen decades, are economically also beyond repair.

The involvement of the Directorate General of Mines in the supervision of environmental management is in accordance with paragraph (2) of Article 18 of the obsolete Law No. 4 of 1982. This paragraph stipulates that environmental management is carried out by agency responsible for the respective sector through departmental structure in the government.

The existing environmental law (Law No. 23 of 1997, however, promotes the role of the local government in carrying out environmental management. Therefore, the provincial Bapedal is potentially more effective in controlling environmental impact. The main weakness of the provincial Bapedal is its insufficient authority and its lack of access to information concerning mining. These shortcomings are a great obstacle for this agency to take effective action and decision. Hopefully, the establishment of decentralized system would improve the function of the provincial Bapedal.

Another weakness of law enforcement concerning environmental protection in Indonesia is in the judicial system. The judicial system is practically unprepared to anticipate the progress of the demand for environmental protection. In court settlement of environmental violation is a rare occasion. Out of court settlement is still the only escape from environmental conflict for both the mining industry and the community. Out of court settlement is also encouraged by the Environmental Law No. 23 of 1997 encourages this settlement approach.

Out of court settlement is not an effective alternative in terms long term interest of both the government and the mining industry, since out of court settlement mostly deals with compensation as stipulated in the Article 31 of Environmental Law No. 23 of 1997. Compensation is not always in compliance with the objective of environmental management, which is to sustain the capacity of ecosystem. The compensation approach practiced by the industry tends to justify environmental degradation by compensation payable to local community. The essence of environmental conflict is shifting from demand for less environment degradation to demand for more compensation money. Some experts and environmental activists express their concern about the new trend of trading environment for compensation money.

The mining industry seems to be in favour of compensation approach rather than in court settlement. A large-scale mining company, which has been in constant attack by NGOs for its environmental performance, has recently justify its environmental damaging waste rock disposal system by reaching settlement with the local tribal communities. The company express relieve for the blessing of the tribal communities for disposing waste rock into a lake.

The NGOs are persistently pressing the mining industry through legal class actions. Recently, their effort succeeded to put the biggest mining company into court for environmental violation. The court decision was declaring the company guilty of concealing information on environmental disaster from the public and ordered the company to improve its environmental management. This court decision has shown that the judicial system is starting to work.

Lack of resources in the government sector is another factor that weaken environmental law enforcement in the mining sector. The Director General of Mining, represented by

Inspectors in charge for the environment supervision, is responsible for physical inspection and monitoring of environmental performance of the mining industry. This undertaking, however, cannot be conducted effectively due to the lack of financial resource, equipment and facilities as well as expertise to carry out inspection. This unfortunate situation has made the government rely on provision of facilities from the company when inspection is to be conducted.

## **3.6 The Role of the People**

### **3.6.1 Demand for Social Justice**

People's involvement in environmental management has been a central issue in Indonesia since the last five years. The fall of the past repressive administration in 1998 was the result of the people's action to topple the regime. Since then, the role of the people gained momentum to grow in the new democratic system in Indonesia. Freedom of speech, free journalism, human rights awareness, and the decline of military intervention have created awareness to the importance of the role of civil society in the state governance.

One of the important phenomena emerging from the newly established democratic system in Indonesia is the demand for social justice in every line of business. The strong demand for justice rooted from the past unfair treatment received by the people from the business sector. The demand for justice in the mining sector is related to unfair land compensation, human rights abuse, and environmental damage.

The demands for justice in many occasions were expressed through unlawful actions directed to the mining industry. As the product of a repressive government, the current legislative systems were not prepared for anticipating mass actions demanding for justice that cannot be proved legally.

To the people actions demanding for justice, especially related to land compensation, the mining industry's reaction varies with the local situation. In general, however, most mining companies are very understanding and they are willing to open discussion with the community to renegotiate compensation.

However, the willingness of the mining industry to renegotiate land compensation should not be understood as a sign of recognizing the essence of social justice demanded by the people. The essence of the people's demand is the right to involve in the decision process concerning mining activity that would have effect on the people's life. Land use is only one aspect of interactions between the mining industry and the community. The people's demand for justice would extend to other matters, including environmental violation and distribution of natural wealth. Most actors in the mining industry and mining legislations are not ready to go that far.

### **3.6.2 Legalistic Framework of Community Involvement**

Community involvement in environmental management is recognized in various legislative products. Law No. 23 of 1997, Article 5, recognizes the individual right to have healthy and

safe environment (paragraph 1), the right to access environmental information (paragraph 2), and the individual right to get involved in environmental management (paragraph 3). However, implementation of these provisions is still far from reality.

The Contract of Work for mining does not stipulate obligation concerning community involvement, and therefore, the (foreign) mining industry is not fully aware of the importance of community involvement in the environmental management.

The mining industry resists any idea of involving the community in environmental management. The mining actors argue that because of the people's low educational level, and some of them are even under-developed, involvement with such sophisticated industry such as mining, would not be beneficial to both the community and the mining company. From various discussions concerning community involvement, we may draw conclusion that the negative response of the mining community to this issue is based on two fundamental reasons. The first is limited understanding of the scope and principles of community involvement. The second reason is fear of possible uncontrollable community demands for intervention in the company management. In addition to these two reasons, the recent hostile treatment to the mining industry has made the possibility of establishing positive community involvement fading away.

Although according to article 5 of Environmental Law No.23 of 1997 community involvement is the people's right, the government agency responsible for mining and the mining regulations do not encourage the mining industry to implement the stipulation in the environmental law.

### **3.6.3 Environmental Compensation**

Compensation is an alternative settlement for environmental conflict that is encouraged by the Environmental Law No. 23 of 1997, Article 31. However, compensation should not be institutionalised as a permanent method for dealing with environmental violation. There is tendency that environmental compensation is understood by the mining industry as a part of social problem solution. Indeed, compensation can be an effective instrument to solve social problems, but could be a dangerous method to solve of the problem of ecosystem disturbances. Therefore, to be effective in resolving environmental protection problem, compensation should be based on certain principles, and community acceptance is only one of the principles. The other important principle stipulates that compensation should only be practiced with respect to unavoidable environmental damage of insignificant impacts.

The current practice in the mining industry demonstrates that compensation is applicable at any scale of environmental damage as long as it satisfies the community. According to the mining industry and government perception, compensation can be an effective tool to solve environmental problems, since it has a preventive function as well as a community harmonizing function. Most NGOs do not endorse such perception since both the community and the mining industry could use such policy and practice manipulatively.

In many cases, social harmony is established shortly after compensation, but it does not sustain for long if environmental pollution continued. Bilateral compensation settlement

frequently frustrates NGOs working on advocating basis. Advocating NGOs are working on behalf of the communities, exposing their complaints of environmental pollution created by mining activity. While the NGOs are escalating their pressure, the mining company is approaching the community to negotiate compensation. When the community has accepted the compensation terms and peaceful existence with the mining company is stipulated, the NGOs lost their advocating basis. In such circumstances, the mining company would declare the environmental violation issue no longer exists. The mining industry frequently claimed that environmental issue would only exist if it were created by the NGOs.

## **3.7 Mine Closure Issues**

### **3.7.1 Compliances**

Mine closure is an actual issue at this time, since some mining projects are approaching their termination. Some mining companies (obviously those of international reputation) are preparing a comprehensive mine closure program. Presentations of such program are conducted and stakeholders are engaged for discussion.

Both Mining Law No. 11 of 1967 and the CoW contain no provision on mine closure and no guidance from the government describing the scope and objective of mine closure is available. In other words, the government position is passive, while initiative is taken by the mining industry by submitting proposal for approval. In absence of policy, regulation and guidance, approval of the proposed program is based on a trail and error process.

Without regulatory framework, mining closure objectives could be anything. In the current model proposed by the mining industry, the objective of mine closure is focused on the economic values of post-mining land use, for example the use of tailing disposal areas for agricultural purposes and excavated areas for fresh water fisheries. Economic objectives may be popular, but may not be compatible with environmental protection objectives.

Comprehensive mine closure program could be an extra burden for a mining project. Short lifetime and medium-scale mining projects, in general, focus their mine closure program on cleaning up and assuring safety of the mining areas, removing infrastructure and machineries, removing toxic rubbish, burying concrete slabs and footings, closing roads to dangerous areas, and fencing wherever needed. Land rehabilitation, if it were program, is conducted in a limited area. Landscaping, including the rehabilitation of natural drainage, assessment of potential erosion, and land stabilization programs, may not be in priority. In short, it would not be realistic to expect a short lifetime mining project to conduct a comprehensive mine rehabilitation program without definitive and enforceable regulatory compliances.

Large-scale mining companies prepare mine closure program and conducting land rehabilitation procedures in a more comprehensive manner, to include social, economic, and environmental models of the post-mining period. Some others practice backfilling procedures through a long-term integrated mine planning.

to ensure the commitment of a mining company to conduct mine rehabilitation, the government stipulates obligatory “land rehabilitation deposit” payable at certain time during production period. In the even that the company fails to fulfil its obligation to rehabilitate the abandoned mine, the government is legitimate to use the deposit to conduct land rehabilitation. Concerning environmental protection objectives, the “land rehabilitation deposit” model has numerous loopholes. However, since this rule has just recently been issued, it will need some time to prove its effectiveness.

The government has also issued a “land reclamation technical guideline” for mining, which focus more on slope stability techniques rather than on mine closure principles and procedures.

### **3.7.2 Constraints**

There are some constraints hampering the development of comprehensive mine closure model in Indonesia. Although mine closure is at this time a popular issue imposed by NGOs, the understanding of mine closure principles is still in its infancy. In a mine closure workshop, organized by the government early this year, the mainstream discussions were focused on the adverse-post mining impacts, including socio-economic impacts, rather than on the search for a comprehensive environmentally oriented mine closure models.

It is apparent from various discussions and seminars that the government has no conceptual framework on mine closure that can be used as the basis for stipulating regulation. With escalating pressure from the NGOs, the government has invited the mining industry to propose the groundwork of mine closure regulation.<sup>8</sup> It is predictable that a regulatory draft initiated proposed by the mining industry would not be compatible with the public interest and expectations, since it will lean more to the interests of the mining industry.

Another constraint on having a comprehensive mine closure model in the future is the fact that Indonesian mining legislation is based on the sequential process of mining, which initiated with exploration activity. According to this sequential model, mine closure activity would be the last part of the mining process. Stipulation of “land reclamation” deposits is based on this sequential mining process model. It is stated in this regulation that in the event that the company fails to fulfill their obligation, the company will automatically loose the deposit. The only time the government would only know the company had failed to fulfill its obligation is at the end of the mining process.

Any mine closure regulation based on sequential mining process would not be able to promote early preparation of mine closure program. Some short lifetime mining projects, for example, have no interest in preparing a mine closure program earlier. They did not even think of including mine closure expenditure in the feasibility study. As the result of this situation, mine rehabilitation is conducted in a simple manner. However, one medium-scale gold project in East Kalimantan, which mine lifetime is ten years, is preparing its mine closure program four years before the closing time.

---

<sup>8</sup> Recently, the government has assigned a small domestic consulting firm to draft a regulatory framework for mine closure in collaboration with eight mining companies.

The mining industry is known as an industry that exposes de-industrialization impacts as well as industrial impacts on the environment. These two categories of impacts should be reflected in the EIA of the project. However, it is a common practice in Indonesia that mine closure issues are not comprehensively addressed in the EIA. If they are addressed, the discussion on this matter is very normative and academic.

### **3.7.3 Mine Closure Objectives**

Mine closure should attain two main objectives: environmental and socio-economic. These two objectives should be set from the beginning of a project, blended together with economic objectives. In short, mine closure objectives should be a part of the economic considerations evaluated and decided in the project feasibility study.

Polarization of economic and environmental objective is a crucial in the determination of mine closure objectives in a certain mining area. A good example of objective polarization is currently occurred in a major gold mining project in East Kalimantan. PT Kelian Equatorial Mining is at this time preparing its mine closure program. The drafting of mine closure is conducted through a number of community consultations. Concerning the abandoned pit, which is 300 meters deep and about a mile in diameter, the local government prefers to have the pit rehabilitated, whereas the company prefers to leave the pit open. Economically, it is impossible to close the pit, since the tailing disposal areas are located at a relatively great distance from the pit and buried in several deep natural valleys. It seems that the company is focusing the mine closure on socio-economic objectives by proposing the use of the pit as a lake for tourism, and possibly for a fresh water fishery. The local government and the NGOs fears of the possible environmental impacts generated from the unfilled abandoned pit.

In Indonesia, mine closure procedures are still in an infant state, since modern mining is relatively recent and there is no major mining operation has been closed. The post-mining objective is a long-term concern, and as with other long-term objectives, it is given less concern by the mining industry and the government. However, failure to attain sustainable post-mining objectives would be a major constraint on future mining investment in Indonesia. An abandoned mining area is an effective justification for future mining investment in Indonesia.

## **CHAPTER 4: ISSUES RELATED TO SMALL-SCALE MINING**

### **4.1 Background**

Mineralised areas in Indonesia are mostly remote, undeveloped and unsuitable for agriculture. For example, most areas of Kalimantan are swampy, alluvial plain and acid. Mineralised areas of Irian Jaya are mountainous, with altitude above 2000 meter, while those of eastern part of Indonesia are arid and isolated. It is very common, therefore, that the people in mineralised areas are very poor and under-developed. The development of mineralised areas in greater part is hampered by agriculture-oriented development strategy practiced in Indonesia. With this strategy, the role of SSM for rural development has never been considered.

The Government has channelled billions of dollars through various programs to assist small-scale farming, fishery, small-scale industries and small-scale venture in other sectors to increase productivity and efficiency. However, none of such program has ever been developed to assist rural people to develop mineral deposit in SSM format.

In the last three decades, large-scale exploitation of natural resources, including mining, forestry and plantation have been growing extensively. Because of the large-scale extensive exploitation of natural resources, the rural people have lost their traditional sources of income. The traditional daily earnings from collecting rattan, panning alluvial gold, hunting and fishing have gone due to concessions allocated to large-scale industries. The people subsist on growing whatever can grow on infertile soil.

Extensive exploration conducted by foreign investors during gold rush in the early 80's revealed the endowment of gold and coal deposits in various places of the country. The occurrence of gold, especially the alluvial and shallow weathered rock deposits and coal has attracted many business interests. By then, the local community were aware that they have alternative to subsist by panning gold outside or in the periphery of the areas already allocated to the investors.

The activity of the local people digging gold in within the areas allocated to the large-scale investor, had attracted irresponsible parties to get in gold and coal mining business by using the local people legitimacy and deploying workforce from outside. That was the way the illegal mining to grow. When the government started to enforce law and order to put the illegal and irresponsible mining operations to an end, the situation was already out of control. Military and local government personnel were illegally behind the illegal mining sponsored by profit taking parties. The local community benefit very little from the illegal mining and yet they have to bear burden of environmental damage and socio-cultural mess in the mining areas.

## 4.2 Development of the People's Mining

Small-scale mining in its real terms has never been addressed properly and it is not accommodated in the mining legislation in Indonesia. The Mining Law No.11 of 1967 stipulates a format of SSM, which is termed as the "People's mining" (PM).

According to the Mining Law No.11 of 1967, PM is a traditional mining activity by local community in certain areas designated by the Minister of Mines. According to the law, areas for PM are those that are not profitable for large-scale mining operation or areas surrendered to the government in the process of relinquishment of large-scale mining area. In short, areas allocated to PM are marginal areas. Law No.11 of 1967 also stipulates that PM activity shall be conducted by family and shall be limited to fulfil the daily needs. The area is limited not more than five hectares and operation shall be manual or using mechanical equipment, which is not more than 5 HP.

PM is not a version of small-scale mining that can be developed profitably. All articles in the Mining Law No.11 of 1967 concerning PM, tend to restrict rather than promote PM. When the large-scale mining investment rushed into gold and coal areas, the people lost their traditional gold and coal areas, since the areas were included in the CoW areas. The people thereon had no alternatives but joining the illegal mining operation in the CoW areas.

It seems that articles concerning PM in the mining law, Law No.11 of 1967 are focussed primarily on limitation of traditional community's gold mining activity. Apparently, the scenario behind the stipulation of PM model in the Mining Law No.11 of 1967 was to restrict the already existed traditional mining activity at the time the law was promulgated. According to this scenario, if traditional mining were allowed to exist, it should be operative within certain areas designated by the Minister in charge of mining. By so regulated, the traditional mining was sought to be fully under the control of the government. This scenario of restricting the people's mining activity turned out to be counter-productive and a total failure.

Designation of areas for PM activity by the minister of mining is based on the local government proposal. According to the standard procedure, the provincial government submits the proposed area for PM, provided with maps and coordinates, to the minister for approval. In approving or rejecting the proposed areas by the minister is based on one consideration, which is availability of the area for large-scale. The minister would not approve any proposed area that has potential for large-scale mining. Therefore, the minister would only approve the proposed area if it were part of areas that have already been relinquished by the large scale. Since information concerning the relinquished areas are in the government's possession, it would be easier for the government to consider allocation of such areas for PM.

To conduct traditional mining, it is obligatory for the people to apply for special permit for PM. However due to some difficulties, the people are reluctant to apply for PM permit. The first difficulty is the red tape in the local government. Secondly, most people in remote areas are not adhered to regulation. Thirdly, the people consider the (gold) mineral deposits

they mine are not worth of applying costly permit, since there are normally stream sediments, which are scattered and uncertain.

In some provinces, the Department of Mines local office provide assistance to the local government by conducting exploration for PM allocation. Such kind of activity by the Department of Mines local office is based on project funding, which is normally limited and inconsistent. Consequently, the result of such exploration is not too reliable. However, if exploration of such areas turned out to be prospective, it would not be allocated to the people for PM, but to the local investor.

SSM in industrial mineral had received scant attention by the government due to its low market value and less troublesome to large-scale mining industry. It is a very occasional that SSM in industrial minerals are developed in the PM model. The government did not seem to bother to designate certain location for industrial mineral PM, say for example for the reason of environmental protection. Consequently, PMs in industrial mineral are in chaos and tend to be serious the threat to the environment.

According to the current mining law, PM permit (in the area designated by the Minister) is under the jurisdiction of the local government. The interest of the local is more on collecting levies from the PM rather than assisting them to develop. Most local government are not well equipped with technical knowledge as well as hardware to assist PM to grow profitably.

## **4.3 Illegal Mining Operation**

### **4.3.1 History of Development**

When large-scale mining for gold started to expand in the 1980's and for coal in 1990's, Mining Law no.11 of 1967 was the main obstruction to small-scale mining development arms in arms with the large-scale development in the gold and coal areas. Disregarding the need of the local people for replacement of their traditional rich stream gold sediments allocated to the large-scale investor, the government was persistently implement PM as the only alternative for SSM.

Attracted by gold and coal abundance exposed by exploration conducted by large-scale projects, a sudden influx of outsiders to gold and coal areas was inevitable. The outsiders sponsored by the irresponsible financiers, by then established illegal gold and coal mining. Local communities in the gold and coal areas participated in the illegal gold and coal mining due to their inclusion of traditional mining areas into large-scale exploration or mining permit area.

Within the last ten years, gold and coal illegal mining practices have been escalating in quantity and in quality. The number of operators of illegal gold and coal mining has reached several thousands, involving ten of thousands of workers. In terms of quality, illegal mining is not a traditional mining anymore. There is a trend that illegal mining continues to grow to medium scale operation using mechanical equipment, tailor made processing devices and large capacity dump trucks for (coal) transportation.

The illegal mining has created large-scale adversity to the environment, local community and the government income. The use of mercury for illegal gold extraction from gold bearing rock has been exposing such danger to the life of the people that a foreign expert describes the danger is at the level of those of Chernobyl nuclear plant or Bhopal gas disaster. Mercury containing waste from extraction process is dumped in the rivers or accumulated in open space. In certain places, such as in West and Central Kalimantan and West Java, tens of tons of mercury were dumped into one river monthly. Lost of life due to ground slides is not accounted as an important issue anymore. The operators and the workers of illegal mining consider lost of life as an acceptable risk due to the very high profit of gold.

Illegal coal and gold mining operations have been expanding to areas legitimately granted to large-scale mining investors. Some mining investments based on contract of work had to be terminated due to expansion of illegal mining in the CoW areas.

Various measures to end illegal mining conducted by the government since early 80's have never been successful. The only measure the government has taken, however, is repressive action by the police and the military. According to the two-decade experience of repressing illegal mining, the weakness of the repression approach is on the fact that the illegal mining is under the support of the corrupt military, police and local government individuals as well as from organized crime.

#### **4.3.2 Environmental and Social Impacts**

Environmental damages caused by illegal mining operations are colossal, but it has never been the concern of the NGOs and the environmental activists. The government and the large-scale mining operators frequently expressed their concern about environmental damage caused by illegal mining. The government concern about environmental and safety hazards caused by the illegal mining is more an expression of despair due to the ineffective law enforcement against the persistence growth of the illegal mining. Concerns expressed by the large-scale mining operators on environmental damage created by illegal mining, has lost its credibility due to the weak position of large-scale operators concerning environmental issues.

Concerning the environmental aspect of illegal mining, it seems that the hardliner NGOs are looking at other direction because of their dilemmatic position. On one hand, on behalf of the local community's interest, NGO's are criticizing the large-scale mining for environmental damage they create. On the other hand, the NGO's are advocating the right of the local community to mine minerals (in small-scale), which has been over-powered by large-scale mining. It seems that those two objectives are not compatible to each other. Criticising the illegal mining for environmental damage would mean denying the NGO's advocacy objective to promote the right of the people to mine.

With regard to the seriousness of the impact of illegal mining to environment, the government and the mining industry to indicate that the real threat to environment does not

come from the large-scale mining but from the small-scale. Such relative evaluation is opposed by the NGOs.

Some technology based NGOs, however, are collaborating with the government agencies and local government, to curb the adverse impacts of illegal mining. A project in the Ministry of Environment, for example, was promoting the use of retort to reclaim mercury, and thus minimise health hazard caused by mercury fume. Some NGOs were also assisting the local community to regain their rights that have been violated by outsiders operating illegal mining. Indeed, the position of such NGOs is very essential to curb the adverse environmental impacts of the illegal mining.

The governmental agencies, on the contrary, are facing legalistic constraints in resolving the environmental problems created by the illegal mining. Giving assistance to anyone's effort to curb the environmental impacts of the illegal mining would mean that the government is recognizing the illegal mining. Due to this constraint, the only alternative possessed by the government is to enforce repressive measures against illegal mining.

Illegal mining is also creating adverse impacts to the community. Violence, alcohol, prostitution, gambling and other social disorders ruin the social and cultural life in the community. Should the local community takes benefit from the illegal mining, their involvement is restricted as hard workers doing high-risk jobs, such as digging ore in unsafe shaft and handling mercury containing ore materials.

### **4.3.3 Illegal Coal Mining**

Since mid 1980's, the demand for coal has been increasing with a fantastic rate. In 1970's the annual production of coal was barely one millions tonne, and the current production is at the level of 100 millions tonne. Rush for coal in the early of 1990's was triggered by the second global energy crisis. The cope with the increasing global needs for oil, the government focussed the role of oil for export and to replace the role of oil for energy generation, the government encouraged the use of coal for domestic consumptions.

The influx of coal investors to Indonesia has opened a new horizon of modern coal mining in Indonesia. Coal prospects were discovered everywhere in the country, especially in South and East Kalimantan. The abundance of coal prospects has made coal as a reliable domestic energy source. Domestic market, as well as export market, for Indonesian coal was widely opens. The coal demand for electricity and cement industry has been increasing since then.

The great domestic demand for coal and the simple procedure of mining shallow coal seam are two factors triggering the illegal coal mining, especially in South Kalimantan. The illegal operations, which mostly under illegal protection of corrupt elements within the local government and armed forces, were booming. The illegal operators have no fear of legal consequences to mine the coal areas belong to the investors holding contract with the government. The illegal operation is using mechanical equipment and large capacity trucks to haul coal from the mine to stockpile areas. Trading of illegal coal has become great business in the country, including establishment of coal terminals and shipment.

### **4.3.4 Elimination of Illegal Mining**

After running more than two decades, it seems that resolution of illegal mining problem is still very remote. The only measure the government put into action is repression by destroying the equipment and closing the area for other than the legal permit holder. Arrest of illegal persons and put them in court trial has never been made. Within few months, illegal mining would be back into operation. Most foreign mining investors are frustrated by the persistence of the illegal mining operation in their areas.

Resolution to surrender CoW areas to the existing operators is not acceptable to the central government and the mining industry. There are four constraints confronting the government to accept such resolution. The first, the government consider such measure as legalising illegal mining, which is against the legal principles. Secondly, definitive ownership of the existing operation is not known, and certainly it was not the local community. Thirdly, such measure as an ad hoc problem resolution would encourage limitless influx into CoW areas. If such situation occurred, that would be counter-productive to the government effort to attract foreign investment.

## **4.4 The Community's Right To Mine**

### *4.4.1 The Legacy of the Colonial Policy*

Mineral development concept in Indonesia is strongly influenced by the colonial policy, which exclude the right of the people to participate in mining. In the colonial days, the role of the people was restricted to traditional agriculture to provide food for themselves and others. Mining was the privilege of the large-scale industry, which at that time was providing raw material to the colonial country.

When the Mining Law No.11 of 1967 was promulgated in 1967, the legacy of the colonial policy framework remained very influential. The right of the people to mine was not accommodated in the mining law. Since the promulgation of Law No.11 of 1967, the focus of mineral development has been on foreign mining investment. In that period, the role of the people in mining has been given less attention. The possibility of giving the people the right to mine is perceived as a counter-productive to the interest of foreign investment.

It was only recently that the right of the people to mine emerged to the surface. The current situation, however, is not favourable to entertain the mining right of the people. Despite the strong pressure from the community and the NGOs, the government has not changed the old policy of mineral development, which focuses on foreign investment. After having been promoted for three decades, the foreign mining investment projects have covered all mineral areas in the country, especially those endowed with gold and coal resources. Therefore, opportunity to develop small-scale mining without conflict with foreign investment is remote.

The government mineral policy that source form the colonial legacy has great implication on the development of the domestic mining investor and SSM. The government discriminates the domestic mining investment from the foreign investment by providing

foreign investment with various facilities, including softer tax treatment and exemption. The increasing dominance of the foreign investment in mining implicate the development of SSM in terms of areas available to SSM and the importance of the role of the people in mining. The more foreign investment is needed, the less the importance of SMM is considered. The government is increasingly emphasis the role of the people as workers in the large-scale mining projects.

#### **4.4.2 Definition of SSM**

There had been long debates concerning the understanding “small-scale in the SSM term. The basic question asked is the criteria of small-scale; should it be in relation with the level of production, investment capital, employment, and so son. This debate on quantitative definition of SSM has never come to any conclusion. When the illegal mining started to expand in the early 1980s, SSM was confused with illegal mining issues and the discussion on SSM development come to an end. Since then, SSM was associated to disorderly mining practice that waste mineral resource, damage environment and endanger life.

Due to the negative perception to SSM, which is associated to disorderly illegal mining, the mining community in Indonesia, lead by the government and the mining industry, unofficially believes that mining is not for the people due to its complexity, high risk and its intensive capital and technology requirements. They believe that the community disserves benefit from mineral resources, but not through mining activity. The discussion on SSM development is now replaced with discussion on community development. The mining community believes that community development would be a short escape from the strong demand for the recognition of mining right.

According to experience in other developing countries, SSM can play an important role in the economic development, amongst others are in providing employment opportunity and development of entrepreneurship in the rural areas. The impacts of employment opportunity in the rural areas in Indonesia are tremendously important, since it will restrict urban migration, especially from arid areas which land is unsuitable for agriculture.

If the positive roles of SSM were to be recognised, a new definition of SSM shall be introduced in Indonesia. Development of such definition is a great challenge for the government, since SSM has not been in a proper place in terms of the government development policy as well as in the government mineral policy. SSM is confused with illegal mining and perceived of obstructing the large-scale mining. With regard to the problems of large population of Indonesia and the huge number of unemployment, estimated 40 billion people, a new definition of SSM to enhance its positive contribution the economic development is a necessity in the future.

## 4.5 The PSK Concept

In the late 1980's, the Department of Mines and Energy was implementing the "PSK Concept"<sup>9</sup> to resolve illegal gold mining activities, which had become a political issue at the national level at the time. The PSK Concept was launched in 1990 to promote conceptual resolution of the illegal mining and simultaneously to introduce a model for community based SSM development. It seemed, at the time, that the challenge of having a new definition of SSM was met by the PSK Concept.

The PSK Concept defines SMM as "mining activity operated and owned by the local community, the purpose of which is for rural / community development in the mineral areas. It implies that the essential element in this definition is togetherness in achieving common objectives. The common objective in this undertaking is not restricted to profitability of the SSM, but also covers strengthening of the community capacity, including but not limited to economic and financial capacity. Environmental protection, including, land rehabilitation after mining, is one of the common interests of the community.

PSK stands for *Pertambangan Skala Kecil* means Small Scale Mining. The basic principle of the PSK Concept is recognition of the right of the local community to mine any mineral resources according to their capacity in compliance with good mining practices. Consequently, any mining activity by the local community based on the PSK Concept, which is also called community based SSM, shall not be restricted to traditional system. It has the right to develop according to the community's capacity into any (medium) scale.

As an experimentation model, which is specifically designed to comply with Indonesian situations and needs, the PSK Concept was not instantly acceptable to the mining community. To the mining and academic community, small-scale mining concept is framed within a techno-economic understanding, whereas the PSK Concept is framed within a socio-economic concept to develop community in the mining areas. Because of this difference in perspective, the PSK Concept has never gained its momentum to develop, although it is not rejected either.

As all other small-scale mining everywhere in the world, the development of PSK mining, which is community based SSM, would rely on assistance from the government. This assistance, however, is expected not to be given on ad hoc basis, but by opening access to resource systems at national and provincial level. Such access as to banking, technological resources, and geological information are very essential to the development of the PSK mining. In short, a special policy regime for the development of PSK mining is a necessity.

The community-based principle of the PSK mining is strategically an important aspect to curb outsider influx to the mineral areas to develop illegal mining. Historically, illegal gold and coal mining originated from traditionally operated mining conducted by the community. In its further development, the illegal mining activities were dominated by outside business interest that deploys workforce from other places (mostly from Java). The

---

<sup>9</sup> "PSK Concept" was drafted by Rachman Wiriosudarmo in 1989 and has been implemented as an experimental model by the Department of Mines and Energy since 1990 until to day.

local community since then was alienated from the illegal mining activities. This situation was to be reversed at the time of the introduction of the PSK mining activity.

Since PSK mine is a community based activity, it would be possible for the community to manage all aspects (including environmental) of the mining project according to or be guided by the local cultural wisdoms. By enhancing of the role of the local community in the development of PSK mine, recognition of the right of the people to mine is thus simultaneously promoted. The PSK Concept recognises the function of the local community, though not so much as the owner, as the cultural guardian of the land and minerals contained therein. The cultural wisdom is expected to be an effective instrument to guide the common interest of the community, including environmental protection and land rehabilitation and at least to screen outsider influx to the area.

Although the PSK Concept has been implemented for a decade, but along its development, its basic principles, especially its essential community-based principle, have been eroded or deviated further and further from the original ones. It is for this reason that the PSK Concept has failed to function as a strategic model to curb illegal mining as well as to develop community based small-scale mining.

The Directorate General of Mines, through a state budget project named the “PSK Project”, has been implementing the PSK Concept since 1990. The government provided assistance in the form of exploration, environmental impact assessment and feasibility study. Technical assistance might also be given to the operating mines, including construction of mine facilities and provision of equipment, if the budget is available. However, the objective of the PSK projects that have been implemented so far is focused mainly on techno-economic values rather than on socio-economic values. Such objective has implicated the essential value of mineral as a social capacity strengthen instrument to introduced by the PSK Concept.

Regarding the future role of SSM in the economic development in Indonesia, the PSK Concept, as the only community based SSM model there is, deserve serious attention from the government. As a community based economic undertaking, the PSK Concept offers triple functions, namely function to assist the community to strengthen their capacity, function to develop sustainable model for natural resource development by the local community and function to curb illegal mining practiced by outsiders.

The function of the PSK Concept to curb illegal mining would depend on the locality factors. In the case of illegal mining operating in the CoW area, implementation of the PSK Concept would need cooperation, understanding and assistance from the large-scale mining company holding the CoW. In the development of industrial minerals, the other two functions would not work without assistance and cooperation from the industry using the products.

## **4.6 Small Scale Mining Development Issues**

### **4.6.1 Institutional Issues**

Coordination amongst parties that are related to and responsible for mineral and community development, including local government, cooperative movement, the mineral industry and other industries shall be extended, improved and institutionalised.

Institutionally, SSM should be placed within the community development regime rather than within the mining regime. In the past framework of thinking, SSM development was associated with legalisation of illegal mining. In the new regime, therefore, the past single objective of the illegal mining repression, which is to maintain law and order for the interest of the large-scale investors, should be extended to cover the interest of the local community. Such objectives would only be attainable if the government were interested in developing SSM as a rural institution rather than just as a mining project.

Recognising SSM as a rural institution would attract interest from other party outside mining. Development of community based SSM in industrial development, for example, would demonstrate the importance of SSM as a rural institutional instrument to achieve economic objectives and environmental goals. For this purpose, a comprehensive SSM development program for industrial mineral is urgently needed. There have been numerous SSMs in industrial minerals, operated by the community, which operational systems are subject to improvement, specially concerning safety, environmental management, quality control and marketing. Performing such undertaking would need involvement of all parties responsible for and concern with rural development.

Development of community based SSM in gold and coal areas would only be possible though a long process of illegal mining termination and then establishing the community based mining in the areas abandoned by the illegal mining. Therefore, it is worth to note that the objective of illegal mining repression should not be confined solely in the security aspects, but also to include prosperity aspects of the local community. To achieve both security and prosperity objectives in the continuing process of illegal mining termination and establishment of PSK mining, coordination and integration of various local agencies interested in security and community development is a necessity.

### **4.6.2 Exploration and Investment Risk**

Unlike in the other countries, traditional and independent prospectors, who play an important role in mineral discoveries, are hardly available in Indonesia. The government agency and mining companies, including petroleum-mining companies, are the greatest consumers of geologists and mining engineers. For this reason SSM development is facing problem in engaging free-lance professional geologist to conduct exploration. Consequently, SSM and MSM rely completely to the government resources, although these resources are not always free of charge.

Free assistance for exploration is available to SSM of PSK type, which is channelled through the PSK project implemented by the Directorate General of Mines. Availability of assistance

of this type would depend on the government annual program and budget. In the event that the budget was available, normally its quantity it is insufficient to develop comprehensive exploration program. The lack of funding from the government assistance implicates the degree of confidence of the exploration data, which may expose the SSM to a high-risk or unsuccessful mining operation.

Minimum amount of pre-operational exploration is necessary for systematic mining, regardless of scale of operation. In the individual case, the complexity of the deposit and financial resources required to establish a mine would dictate the adequate amount of exploratory work. Operations extracting complex ore from an unfavourable geological environment would need substantially more detailed exploration than operation extracting homogeneous material from a uniform undisturbed deposit. SSM operations in industrial minerals and coal generally require less pre-operational exploration than SSM in metal mining. However, government exploration assistance to support the development in SSM is normally ignore such geological characteristic due to limited fund and time to conduct an elaborate analysis of exploration data.

There are many SSM projects under the government assistance that have to be closed due to poor exploration data provided by the governmental exploration team assisting SSM. The unsuccessful SSM operation creates disappointment and distrust to the government agency. Since the government assistance includes provision of equipment for mining and processing, the community normally continue to use the unsuccessful well-equipped SSM to mine mineral deposits by following outcrops or move to other ore deposits, wherever they are available. This practice would create adverse impacts to environment and expose high safety risk to the workers as well as damage to mineral property.

#### **4.6.3 SSM for Industrial Mineral**

Indonesia is endowed with industrial minerals and local people has been mining industrial minerals for decades, in various size of operation, from very small to medium-scale mining, and yet they are all practicing improper traditional mining and processing methods. Industrial minerals, such as limestone, building material minerals, minerals for chemical industry, ceramic and clay minerals, are widely mined by SSM and MSM. Assistance from the government is hardly available to industrial mineral SSM and MSM.

One of the positive values of SSM in mineral industry is its labour-intensive operation and thus account for an appreciably larger contribution to employment. Moreover, SSMs and MSMs, which are employing more workers, contribute more to basic skill formation objectives. Mineral industries practically occur in all provinces of Indonesia and domestic market of industrial minerals is widely open. Indeed, SSM in industrial mineral would be a great opportunity for the developing of rural areas, especially in those areas, which land are unsuitable for agriculture.

With or without assistance and recognition from the government, local community and self-operated private venture have been developing mineral industries in SSM format. Traditional SSM are those quarrying industrial minerals, such as limestone, gypsum, sand and clay minerals, guano phosphate, feldspar and so on. These minerals are sold as

unprocessed or limitedly processed raw materials in the local market. Lack of quality control in mining and unprocessed products sales implicate the marketability of these minerals. Rejection of product due to under specification and uncertainty of pricing criteria has put SSM in uncompetitive position. Long-term contract is hardly applicable to SSM.

Disorderly exploitation of sand and gravel for building material in Java is very disastrous to environment, and yet such operations are growing all over Java, resulting major floods and land slides every year that take large numbers of life and damage properties. If exploitation of sand and gravel (in Java) were institutionalised within community through community based SSM format, it is believed it would give more benefits to the community and the environmental impact is controllable. Planning is essential for this undertaking.

Quality control is the determining factor in overall process of industrial mineral exploitation, and therefore the gravity of industrial mineral exploitation is processing rather than mining. Marketability of industrial minerals is determined by product quality. It is obvious that SSM format would not be in capacity to provide processing technology. Should SSM be provided with processing plant, it is doubtful that they are capable of operating such delicate processing procedure either. This dilemmatic problem would be resolvable if the large-scale consuming industries were interested in the development of industrial mineral SSM.

There are some major obstacles for the consuming industries to cooperate in the development of industrial mineral SSM. The first obstacle is the lack of interest from the government in developing a comprehensive program for the development of SSM in industrial mineral. Secondly, most large-scale mineral industry consuming companies are foreign investments that are controlled by foreign management and technical experts. Should these large-scale foreign companies be concerned with SSM development, they have to go a long way before they could accept SSM products that are far behind their standard. Understandably, that such undertaking is beyond they business objective. The third obstacle is incompatibility of the technology used by the large-scale consuming industries with raw materials produced by SSM.

#### **4.7 Health and Safety**

Regarding SSM and some MSM operations, both operators and the government ignore health and safety precaution, resulting extremely unfavorable and hazardous working conditions for the persons engaged in mining and processing activities. Accidents are most frequently caused by the absence of adequate roof support to prevent rock falls and landslide. Countless lives have lost due to landslides and other hazardous practices.

Safety supervision and law enforcement from the government is made ineffective by a number of factors. In cases of mine accidents, the situation is usually aggravated by the geographically isolated location of mining districts. However, the main reason for the ineffectiveness of safety supervision and law enforcement roots in the structural framework and the government policy concerning SSM operation. The central government, e.g.: the Department of Mines and Energy, is psychologically too distant from SSM operation, while

the local government lacks both technical competence and concerns to supervise and to enforce law to SSM operation.

#### **4.7.1 Environmental Concerns**

Environmental concern in remote areas varies with the socio-cultural and economic condition of the community. Community devoted to cultural life, generally very concerned with the wholeness of nature. Such community's life is governed by cultural wisdom that would not confront economic needs with natural preservation. The artisan mining, especially in gold and coal, were traditionally conducted in balance of economic and natural preservation.

However, in remote mining areas, where large-scale mining exists, such traditional wisdom has been eroded to such extent that the community's bounding with nature is weakened. If community in such areas were bound to mine minerals, they would not respect environment anymore. In such circumstances, law enforcement would not be effective either, since the community's adherence to regulations is not that strong. Having that knowledge, a new pattern of community involvement in mining, regardless the scale-effect has to be developed.

Establishment of a new pattern of community involvement in mining would need a SSM development program, which emphasize the importance of the community based character of the SSM developed. If such grass root SSM development program were to be wished, it is recommendable to reconsider implementation of the PSK concept, which is a concept of community based SSM. The one of the main features of the development of community based SSM, which is contained in the grass root program, should be to enhance inclusiveness and sustainability, including promotion of environmental awareness.

In most cases, mineral resource left by illegal mining following repressive measure, are economically viable for investment. If it is wished, the financial supporter of the previous illegal mining might be invited to collaborate with the community to develop community based SSM legitimately. In such circumstances, the mining permit shall be granted to the community and not the other parties collaborating with the community. Although financial back up is provided by private party, government involvement is still necessary, especially to act as a supervisory agency and provider of assistances, especially at technological level.

Environmental condition of the mineral areas abandoned by illegal mining is normally very poor. In the event that a community based SSM is developed within the area abandoned by the illegal mining, the community should be responsible for taking care the environment, including rehabilitation of land. However, it would not be fair to burden such undertaking solely to the community. The government involvement is therefore very essential, including provision of financial and technological assistance. However, the role of the government should not be emphasized too such extend that would hamper the possible participation of private sector and NGOs.

## **4.8 Choice of Technology**

Although the artisan mining characterized by the extensive use of human energy would not need particular technology, the available mineral deposits in Indonesia would only be possible to be mined and processed by technology application. In general, choice of technology is sought to be the most crucial problem in developing SSM. An appropriate technology to promote efficiency of resource utilization, efficiency of mining and processing operation as well as to promote safety, is a necessity.

The current discriminating mineral policy ignores the importance of technology development for SSM. Indeed, the choice of technology for SSM is a delicate matter, since appropriate technology is the determining factor to the beneficial effects of SSM. It should be understood that the inability of the community to provide technology on their own should not be an obstacle to enhance the positive side of SSM. It is responsibility of the government to make the required technology available to SSM.

The government-owned Mineral Technology Development Centre (MTDC) in Bandung, which is well equipped and well staffed, is one of the research institutions that can be deployed to provide technology for SSM. However, this institution has failed to function as a centre of excellence in developing SSM, due to lack of policy guidelines. It seems that adjustment of the government mineral research policy to enhance the contribution of MTDC to the future development of SSM is needed.

The government policy in mineral allocation is also responsible for the complication in the choice of technology for SSM. The government has never developed a geological-information-based mineral allocation policy that favours SSM. Absence of such policy resulted, for example, granting of extensive alluvial gold resources in Kalimantan to foreign investors. Such alluvial gold deposits would have been very ideal if it were mined by community based SSM. The alluvial gold deposits in Kalimantan is generally less than 10 meters deep with loose alluvial materials, which is ideal to be mined by using hydraulic mining method, and gold recovery is easily done by gravity concentration. The alluvial gold areas in Kalimantan, which were granted to CoW, have been ransacked by the illegal mining.

In SSM for the industrial mineral, choice of technology in the processing segment is more essential to be prioritised than in the mining segment. A customer plant model, operated by a government agency or government supported private operator, would be ideal to overcome the technological problem in mineral processing required by industrial mineral market. Such customer plant for industrial mineral processing, operated by private company in Sidoarjo - Surabaya, has been in operation successfully for many years.

## **4.9 Future SSM Development Program**

### **4.9.1 Policy Reform**

Small-scale mineral properties, which are abundant in Indonesia, could represent an important segment of the mineral sector with a high potential to create beneficial effects. SSM is characterized with efficient use of scarce capital, modest infra-structural

requirements, low investment costs and short gestation periods. What is needed to develop SSM is a political will from the government to establish mineral policy to include SSM development. Such mineral policy, which is in favor of small-scale mine (SSM)-development, should encourage the utilization of otherwise un-exploitable small or simple mineral deposits.

Under the current government policy in investment, which is favoring large-scale investment and discriminating against small enterprises, the development of SSM is ineffective. As consequence of such general policy, Indonesia has inadequate institutional framework to support the small-scale economic segment. Most regulations and circumstances exclude small operations from financial systems and lack of support to establish appropriate marketing facilities.

Policy framework to support SSM development should be national wide, to include establishment of tax regimes. Special tax regime for small businesses, especially those characterised by community-based organisation, should include production taxes, sales or export taxes and royalties. It should be understood that such tax regime is not to promote small business per se, but to accommodate its positive effect on the development of remote areas, especially to strengthen the capacity of local community and to alleviate poverty.

Other objective of policy reform should include simplification (rapid and inexpensive) of licensing procedures required to obtain exploration or mining rights. Regulations regarding minimum mining area, duration and annual work program for SSM are to be reformed. In order to alleviate unduly strong barriers to entry an appropriate definition of environmental, health and safety standards and documentation requirements should also be established.

Regulatory reform should also cover creation of institutional assistance for SSM. It is important that institutions, which assume the responsibility for assistance in a mining area, are completely autonomous, compact, competent and efficient. Such institution, which is attached to Regional Mining Office of the central government, is already available in every province in Indonesia, which is equipped with laboratories and staffed with qualified personnel. What is needed is an emphasis on the function of the institution, which should be more on guiding and enabling functions, rather than on the controlling function.

The current financial support policy implemented through PSK Project shall be reformed, since such policy is not cost effective. More than 50% of expenditure of such financial support is consumed for indirect management cost at the government level. Financial assistance would be more effective if it were channelled through local commercial banks, which have a large branch network with branch offices close to mining districts and having experience with small borrowers. In Indonesia, such bank system is possessed by state owned bank Bank Rakyat Indonesia (BRI).

Financial assistance policy for SSM should include incentive of commercial bank involvement, for example, the introduction of risk-sharing schemes and larger spreads during initial years while confidence is still lacking, as well as rediscounting arrangements with the central bank based on the assistance of an apex institution with specialized experience in SSM projects.

International assistance to assist SSM development should also be welcomed in the new mineral policy. International financial institutions, the World Bank, ADB and the United Nation organisation, such as UNDP, are expected to assist the government to develop community based SSM. To accommodate such international assistance, a well-developed national program is a necessity. Internationally funded comprehensive community based SSM program can be developed within the framework of poverty alleviation in the remote and less developed areas. Priority for the development of community based SSM shall be given to industrial minerals. For gold and coal, community based SSM development program would be more effective if it were focused on “conversion of illegal mining” which are operated by outsiders. Illegal coal or gold mining that are operated by the local community shall be rehabilitated and legalized.

Other policy reform needed is on the provision of extensive technical assistance aimed at introducing sound mining and business practices. The most appropriate method is the execution of on-the-job-training program in existing MSM or SSM-operations. In the absence of suitable training mines, the establishment of a demonstration mine by the responsible agency is another option. The acquisition of sound mining and business practices is an essential precondition for self-sustaining development and growth of community undertaking SSM.

Marketing of SSM product is another important aspect to be addressed in the mineral policy reform. Marketing of industrial mineral has been hampered by large-scale enterprises, including state owned enterprises, due to the absence of the supportive government policy. Gold and coal from SSM and illegal mining are sold to illegal market. Mineral policy, which encourages purchase agreements with public or private institutions, would be needed by SMM development in the future. Such agreement should covers assurance of fair and attractive prices for mineral products and, where necessary, admission of competitive commodity purchasing through licensed buyers.

Provision in the current Mining Law, which restricts the growth of the People’s Mining, should also be completely changed. The new policy should encourage growth of scale of SSM, wherever ore reserves and geological conditions permit. In certain circumstances, growth in mine-scale is very important for the survival of SSM, since it would enhance benefits resulting from scale-effects and avoid high cost operations.

SSM operations raise implications, which the community would not be able to overcome on their own. Therefore, development of SSM would be dependant on external assistance. Appropriate legislation on SSM is pre-requisite to regulate assistance and incentive to encourage the development of SSM as well as for minimizing risk and the negative implications of SSM operations.

In conclusion, risk element of SSM can be reduced to acceptable levels through national mining legislation that contains provisions of risk minimizations, including environmental and safety risks. However, such legislation should also contains a framework of incentive to keep SSM survive and profitable.

#### **4.9.2 Within Poverty Alleviation Framework**

SSM policy reform should be placed in a larger framework at national level, which is acceleration of development in the under-developed areas with focus on poverty alleviation.

Mineral potentials occur in most parts of the country, whether they are metal or industrial minerals. SSM development program should not be seen as much as mineral development program, but as a community development through mineral development. It is therefore very essential to have an integrated SSM program, which includes various government agencies, the mineral industry and other related industries. In short, SSM development program should be a national wide program, similar to those programs, which have been developed for small rice farmers for decades.

Increasing people mobility has caused urban migration, which creates numerous social and economic problems in big cities and their surrounding. Urban migration in general is the result of the intervention of modernization introduced in by large-scale industries to the traditional rural life. Properly programmed, SSM development could have positive impacts on the local community for resisting temptation to migrate.

The government policy in mineral development should include the role of large-scale mining (LSM) in the development of SSM. The new mineral policy should contain provisions for LSM to surrender any mineral potential technologically suitable for SSM. Despite the fact that SSM development is the responsibility of the government, the related LSM should also be encouraged to assist SSM developed in the area.

LSM-SSM relationship should be considered within the framework of LSM community relationship. Properly developed SSM, assisted by LSM, would be very beneficial to LSM in creating harmony with the community and in the prevention of illegal mining intrusion into the CoW areas.

## **CHAPTER 5: ECONOMIC ROLE AND INVESTMENT POLICY**

### **5.1 Introduction**

In many years, the government has been promoting the importance of the mining industry due to its contributions to national economy, especially in earning foreign currency from export. The remoteness of mining location is promoted as an important contribution of the mining industry to develop the under-developed areas of Indonesia.

It is for this economic reason that in the last three decades the government has been focussing its mining investment policy on the importance of attracting foreign investment. In consequent to this investment policy, the mining industry in Indonesia is dominated by foreign investors, which consist of trans-national corporations and junior mining companies. The development of the national mining actors, which comprise of the state-owned mining companies, medium national investors and the traditional small enterprises are given less consideration. This discriminating policy, which treats the national actors as the second-rate business potentials, has created even wider gap between foreign business interest and the national interest, which triggered sharper nationalistic sentiment against the foreign interest. There is tendency that the anti-mining outcry is beginning to shift to the anti-foreign mining investment.

Promotion of the mining industry's economic contribution is perceived by the public as illusive, which purpose is to protect the adverse social and environmental impacts created by the (large-scale) mining industry. Promotion of the roles of mining through its economic contribution turned out to be counter-productive, since it is creating wider critics to the mining industry at the national level.

The following data compiled from the government sources, would explain the real role of the mining industry in Indonesia. It is wished, based on these data, the government would change its mineral policy objectives by giving more emphasis on the importance of the promotion of sustainable development the objectives.

## 5.2 Export and its Consequences

Table-1. Mineral Export Values

Year	Value (US\$x1mill.)		Percentage
	National	Minerals	
1990	25.675,3	635,9	2,5
1991	29.142,4	888,9	3,0
1992	33.966,9	1.453,0	4,3
1993	36.823,0	1.462,7	4,0
1994	40.053,4	1.800,3	4,5
1995	45.418,0	2.690,9	6,0
1996	49.814,7	3.054,2	6,1
1997	53.443,5	3.170,5	6,0
1998	48.847,6	2.704,4	5,5

Referring to Table-1, export value of mineral has been increasing from time to time during nine years period in line with the increase of total national export. This phenomenon was claimed by the government as indicator of success of the government's export policy at national level.

The increase of mineral export value in that period was due to the increase of production of the producing projects. Table-2 indicates that coal production has increased significantly in the period, second by gold production.

Table-2 Mineral Production (tonnes)

Commodity	1995	1996	1997	1998	1999
Coal	41.551.155,01	50.979.343,70	54.975.029,52	62.232.359,16	73.660.811,27
Tin	44.228,00	48.959,78	52.658,25	53.401,00	49.105,00
Bauxite	899.035,00	841.967,00	808.749,00	1.055.647,00	1.116.323,00
Nickel ore	2.513.394,00	3.426.867,00	2.829.936,00	3.233.374,00	3.235.286,00
Ni in Ferronickel	10.734,97	9.553,08	9.998,79	8.451,50	9.205,20
Ni in Nickelmatte	49.333,00	43.500,00	33.653,60	35.697,30	45.901,30
Iron sand	348.371,00	425.101,00	487.354,00	564.424,00	562.912,00
Copper Concentrate	1.516.605,00	1.758.910,00	1.817.880,00	2.640.040,00	2.605.180,00
Gold (kg)					
Metal	20.337,00	28.516,05	30.608,37	32.974,33	35.130,10
In Cu concentrate	42.474,60	54.751,13	57.663,55	91.044,99	92.235,00
Silver (Kg)					
Metal	181.784,86	163.903,52	170.945,63	185.665,52	150.113,45
In Cu concentrate	82.240,00	93.533,87	95.607,25	163.323,42	141.744,00

The government assumed that the increase of mineral productions and export values is an indication of success of the government policy in creating favourable climate for foreign investment. However, the NGOs have responded negatively to the increase of mineral production. They expressed their concern of the environmental consequences of the high increase in production. They argued that if such increase of production were maintained continually in the future, large volume of waste disposed by the mines would be unbearable burden for the environment, especially in the small islands.

The NGO's alarming concern to the increase of the mineral production is not entirely baseless. Table-3 shows a strong indication that the issuance of mining investment permits was due to the government policy to increase mining investment as many as possible.

Table-3 Numbers of Mining Contracts

COW Generation	Total	Terminated	Active
I	1	1	-
II	16	12	4
III	13	10	3
IV	95	79	16
V	7	1	6
VI	65	17	48
VII	38	8	30
Total	235	128	107
Permit for national	796	-	796
Coal Contract	119	-	119

Increase of mining permits means increase of land allocation to mining investment. With the current numbers of permits and CoW's, the total land allocated to mining for various purposes are around 35 millions hectares. This figure is about 20% of the total Indonesian land. Considering that Indonesian land consists of islands, and the fact that there are many small islands are endowed with minerals, the increase of mining area would have adverse environmental consequences to the small islands.

However, the government argues that environmental consequences would only occur on land used for production and those land used for exploration would not be harmed by investment activity. As indicated in Table-4, the government argues, the total land used for mining production are not that much, only 2.5 millions hectares or less than 1.5% of the country's land. The government also indicates that the success ratio of mineral exploration is very small, may be only about 1%. It is obvious that the government's general argument based this statistic would not be applicable to the small islands or environmentally delicate areas endowed with mineral resource.

Table-4 Land allocated for mining

Type of Permit	Stage of Activity					
	General Survey & Exploration		Exploitation/ Production		Total	
	Total Permit	Area (Ha x1000)	Total Permit	Area (Ha x1000)	Total Permit	Area (Ha x 1000)
Mining Permit	514	14,750	282	960	796	15,710
CoW	81	12,150	13	650	94	12,800
Coal Contract	89	4,847	15	795	104	5,642
Total	684	31,747	310	2,405	994	34,152

### 5.3 Open-Door Mineral Policy

The debate on the mining policy and its environmental consequences would not improve the current mining acceptability in Indonesia. Unless the public is given proven facts on the government's resolve in reforming its growth oriented mineral policy into the more people's oriented policy, mining acceptance would not improve. However, the future of mining in Indonesia has been decided nearly fifteen years ago, when the government implemented open door policy to attract foreign investment.

In response to energy crisis in mid 1980's, at beginning of 1990's the government encouraged the use of coal for domestic energy generation. Since then, interest in coal mining investment has been escalating very sharply. Coal investments of various scales were competing for coal areas. Large investments come from both foreign and domestic origins. Medium scale investments were mostly of domestic origin or joint venture between foreign and domestic investors. Cooperative business also contributed to coal investment through special coal mining permit.

The government has widely opened the door for gold mining investment since early 1980's, through Fourth Generation Contract of Work (G-4 CoW). Ninety-five of G-4 CoW's were signed in the first half of the 1980's. The great numbers of CoW's signed at that time was claimed by the government as the result of the government open door policy to foreign investor.

However, gold rush at that time was particularly triggered by the high price of gold, which was in the order of USD 450 per ounce in mid 1980's. Other factors influencing the 1980's gold rush to Indonesia was the promotion of epithermal theory, which relate gold occurrence to volcanic areas, and the permissive stock market in Australia for mining. Those factors have great contribution to the investment influx to Indonesia in the early 1980's.

The aforementioned backgrounds of both gold and coal rush were not fully admitted by the government. Officially, the government believed that the increase of interest in mining investment was due to the government success in creating favourable investment climate.

The government optimistically continued its open door policy by issuing the sixth and seventh generation CoW.

In the early 1990's, fifth generation CoW was issued, the purpose of which was to promote mining investment in Irian Jaya and eastern parts of Indonesia. Investment interest in the G-5 CoW was very modest due to the tight barriers put forward to qualify the ability of the investor to develop the environmentally fragile Irian Jaya and small islands in the eastern part of Indonesia.

Having learnt lesson from the G-4 CoW, the government restricted tightly the junior mining companies to enter the G-5 CoW (for Irian Jaya and the small islands in the eastern part of Indonesia). The circumstances proved that most junior mining companies in the G-4 CoW were speculative and performed very poorly. The great majority of them failed to continue the contract and by the year of 1999, there were only 16 contracts remained (out of 96 signed in 1985).

When the G-6 CoW was released in 1997, the government was making similar mistake to what it did in the G-4 CoW. There were 65 contracts were signed, and the great majority of the investors were junior mining companies relying on permissive stock market in Canada. This time, the open-door investment policy resulted the world famous Busang scandal, which involved a Canadian speculative junior mining company. Since then, there has been a great set back to the credibility of the foreign mining investment in Indonesia.

## **5.4 Controversial Economic Roles of Mining**

Controversy on the Indonesian mineral investment policy is caused by the fact that the mineral investment policy is based on illusive economic roles set forth by the government, rather than on a set of objectives desired by the nation. Ever since, the government has been developing mineral policy based on illusive assumption that mining investment has contributed significantly to the national economy. In the last three years, for example, there has been high expectation that mining would help to recover the national economy from the crisis.

The following Table-5 shows the contribution of the mineral industry to the gross national products (GNP), which average is 2.874% during 1991-1998 periods. This figure is the smallest amongst industrial sectors (non-public services).

Table-5 Mineral contribution to GNP (%)

No	Sector	1991	1992	1993	1994	1995	1996	1997	1998
1	Agriculture, stock, fishery, forestry	19,03	18,86	17,88	16,72	16,12	15,38	14,79	17,20
2	Mining	10,45	9,91	9,55	9,38	9,25	9,07	8,80	9,82
	- Oil & Gas	8,34	7,51	7,01	6,69	6,18	5,87	5,47	6,25
	- Minerals	2,11	2,39	2,54	2,69	3,07	3,29	3,33	3,57
3	Processing Industry	20,90	21,48	22,30	23,30	23,88	24,68	25,05	25,30
	- Oil & gas	3,23	3,16	2,97	2,90	2,56	2,62	2,42	2,89
	- Non oil & Gas Sector	17,07	18,32	9,34	20,41	21,33	22,05	22,63	22,41
4	Electricity, City gas & Clean Water	0,95	0,96	1,00	1,04	1,12	1,17	1,25	1,52
	- Electricity	0,79	0,80	0,82	0,86	0,92	0,96	1,03	1,25
	- City gas	0,03	0,03	0,03	0,04	0,05	0,05	0,06	0,06
	- Clean water	0,13	0,13	0,14	0,15	0,15	0,15	0,16	0,21
5	Construction	6,10	6,40	6,83	7,29	7,61	7,94	8,08	5,64
6	Trade, Hotel & Restaurant	16,27	16,7	16,77	16,78	16,74	16,74	16,87	15,90
	Transportation and								
7	Telecommunication	6,99	7,03	7,05	7,10	7,12	7,17	7,43	7,49
8	Financial, Rental/Leasing	8,48	8,51	8,51	8,71	8,94	9,02	9,04	7,57
9	Services	10,83	10,48	10,12	9,67	9,23	8,83	8,70	9,57

As for the contribution of the mineral industry to total export, Table-6, indicates an average of 4.65% during nine years. This is not very significant.

Table-6 Ratio of mineral export to total

Year	Value (US\$x1mill)		Percentage
	National	Minerals	
1990	25.675,3	635,9	2,5
1991	29.142,4	888,9	3,0
1992	33.966,9	1.453,0	4,3
1993	36.823,0	1.462,7	4,0
1994	40.053,4	1.800,3	4,5
1995	45.418,0	2.690,9	6,0
1996	49.814,7	3.054,2	6,1
1997	53.443,5	3.170,5	6,0
1998	48.847,6	2.704,4	5,5

Regarding the facts indicated in those two tables, the current cost and benefit equation of the mineral sector is questioned. Some experts and NGOs tend to think of mining more as liability than asset of the national development. It is for that reason that the anti-mining

NGOs demanded moratorium of mining. They argue that mining would create more harm than benefits for the people.

Another argument presented by the government in defending the importance of mining is its roles as “agent of development”, especially, in the remote areas. This role of the mining industry, the government argues, is unique, since mining project functions as the prime mover of rural development by developing infrastructure. This theoretical argument is denied by the NGOs, because that argument is not in compliance with the government policy that less concerned with social aspect of mining. Legalistically, the CoW is in fact an exclusive system of government protection to the mining foreign investment, which is too enthusiastic about the role of mining as “an agent of development”.

Experts believe that the positive impacts (multiplier effects) of mining to the local development could only be effective if the development were pre-designed according to the desired objectives. In other words, the role of mining as agent of development would only be effective if it were pre-designed. However, if the role of the mining industry were changed to be more people oriented, it would need fundamental structural changes of the mineral policy framework, including CoW system.

During the last three years, pressure from the public and the parliament to amend provisions of the CoW has been very strong, but the resistance from the foreign investors to that effort was also strong. The government seemed to have no other alternatives but yield to the investor’s demand to keep the CoW as it is within the duration of the contract. Despite the pressure from various parties, the mining industry and the government remain in the “business as usual” mode. There has been no indication that the government would change the current mineral policy.

Experts believe that unless amended, the CoW system, and thus the great majority of mining investment, would be facing serious problem in coping with the strong pressure of legislative reforms in Indonesia, which process is now starting to roll. Legislative reform of other sectors, such as laws on land, forestry, environmental protection, spatial planning, population, marine utilization, are in the process of changing their fundamental framework. It is believed that in the future national development framework, the current mineral policy framework would be neither acceptable nor workable.

## **5.5 Contribution to the Domestic Market**

Other illusive role of mining that has been promoted for decades is the impact of mining products to industrialization process in Indonesia. Theoretically, by having produced various mining products, the domestic processing and manufacturing industry would enjoy a competitive advantage. This theory may be true for industry using coal as energy source, such as cement industry. However, for other industries, the theory is far from reality, since the domestic market absorbs mining products insignificantly.

Table-7 shows domestic sale of important mining products. By combining Table-7 and Table-8, we would learn that only small percentage of the mining products is consumed by domestic market.

Table-7 Domestic sales of mining products (x1000 tonnes)

Commodity	1995	1996	1997	1998	1999
Coal	8.981,00	11.252,00	12.898,00	15.601,00	19.419,00
Tin	2,00	2,00	2,00	2,00	2,00
Ni in Ferronickel	0	0	0	0	0
Ni in Nickel Matte	0	0	0	0	0
Copper					
Gold sale by PT. Antam (Kg)	1.892,96	1.928,51	2.579,14	559,88	166,29
Gold sale by CoW (Kg)	2.294,97	172,98	4,60	0	0
Gold from Others (Kg)	5,80	3,67	6,00	3,60	1,63

Table-8 Export (Tonnage) x 1000

Commodity	1995	1996	1997	1998	1999
Coal	30.936,00	36.382,00	41.721,00	47.616,00	54.884,00
Tin	41,00	47,00	50,00	51,00	47,00
Nickel Ore	2.124,00	2.099,00	2.450,00	2.330,00	2.058,00
Ni in Ferronickel	11,00	10,00	10,00	9,00	9,00
Ni in Nickel Matte	46,00	41,00	32,00	36,00	46,00
Copper Conc	1.514,00	1.654,00	1.883,00	2.639,00	2.651,00
Gold from PT. Antam (Kg)	0	0	0	2,00	3,00
Gold from CoW (Kg)	16,00	25,00	28,00	31,00	27,00
Gold in In Cu Conc (Kg)	43,00	51,00	61,00	85,00	95,00

One of the reasons for the low percentage of domestic sales is due to the absence of mineral smelting / refinery plant in Indonesia. However, the more competitive export price of minerals is in fact the main factor hampering domestic sales.

Establishment of mineral smelting plant is a crucial problem for the government. Although the government investment policy encourages the holder of the CoW to process mineral products in Indonesia, the investors prefer to send mineral products to overseas smelters. Establishment of mineral smelter would depend on many factors, including reliable ore feed supply from the mines operating in the Indonesia and the neighbouring countries. Considering the scale of the mine projects currently operating, except for copper, it seems that this economy-of-scale requirement will never be met, and domestic industries would remain rely on import of raw materials for many years to come.

Another role of the mining industry for the government to consider is the direct employment. Table-9 shows the direct employment opportunity created by the mining industry.

Table-9 Employment in the mining industry

Source	1995		1996		1997		1998		1999	
	National	Expat	National	Expat	National	Expat	National	Expat	National	Expat
<b>CoW + Coal</b>										
Contract	20.496	916	17.159	844	23.837	906	24.401	899	26.458	756
Permit	4.512	7	4.499	12	4.679	19	4.526	21	4.634	8
State owned	15.411	9	15.761	18	16.303	9	16.146	9	15.103	11
<b>Total</b>	<b>40.419</b>	<b>932</b>	<b>37.419</b>	<b>874</b>	<b>44.819</b>	<b>934</b>	<b>45.073</b>	<b>929</b>	<b>46.195</b>	<b>775</b>
<b>Mining Services</b>										
- Coal	6.756	81	10.856	89	10.342	68	10.342	68	14.643	84
- Minerals	11.448	238	16.136	609	18.856	628	20.643	652	10.266	380
<b>Total</b>	<b>18.204</b>	<b>319</b>	<b>26.992</b>	<b>698</b>	<b>29.198</b>	<b>696</b>	<b>30.985</b>	<b>720</b>	<b>24.909</b>	<b>464</b>
<b>Grand Total</b>	<b>58.623</b>	<b>1.251</b>	<b>64.411</b>	<b>1572</b>	<b>74.017</b>	<b>1.630</b>	<b>76.058</b>	<b>1.649</b>	<b>71.104</b>	<b>1.239</b>

With regard to the total number of workforce entering the national market, which is more than four millions annually, employment opportunity in the mineral industry is insignificant. The small number of national staff holding management positions in the mining companies, which are relatively small, has created strong critics at the national level. Critics are also addressed to the mining industry for its small capacity in accommodating local people in the industry. Employment aspect of mining, which would be an important factor to balance the social and environmental cost of mining, seems to be disappointing the community's expectation, especially at the current rate of unemployment, which reach 40 billion people.

## 5.6 Policy Trend

The government at this moment is facing crucial question concerning mining investment platform, on which mining investment policy is to be developed in the future. Establishment of such platform is not an easy undertaking, since it should be adjusted to many factors, including trend of political, social and economic changes.

Since the last three years, Indonesia has been in the transition situation. There have been many demands of fundamental changes emerged to the surface. The fall of the repressive regime in 1998 was a milestone of the democratic process in the nation's way of life. It is on this democratic platform that the people are demanding for improvement of social justice in the process of development, which in the past was completely neglected.

The question of how would the mining industry offer social justice, will be the challenge for all concern and responsible for mineral development. However, the dominance of the

foreign investment in Indonesia would be an obstacle for the government to meeting that challenge, for the meaning of social justice to the foreign investor would be much different from that demanded by the people. It is the government responsibility to reconcile the differences.

Other fundamental change that has been laid down by the government is decentralization of natural resource management, which is placed in the framework of regional autonomy as stipulated in the Law No.22 of 1999. Although according to this law mining should be placed under regional jurisdiction, the central government seems like to keep the authority centralized, at least for foreign investment.

The future trend in environmental policy concerning mining sector is still uncertain. The current situation is indicating a strong contradiction between the demand for sustainability of development process and the demand for growth of exploitation of natural resources, including minerals. In the government, only the Minister of Environment that represents those in favour of sustainable development, while other ministers are in favour of growth. It seems, that the future trend in environment protection policy will remain conservative.

Mining investment policy will remain foreign oriented. Investment process would be influenced heavily by conflict amongst many interests, namely, the interest of the central government and the local government, conflict between the industry on one side and the local community and NGOs on the other side. There is indication that SSM and MSM will still dominant in the near future. Therefore, illegal mining, in gold and coal, will remain a serious problem for legitimate mining investment.

Initiative to improve social relationship is in the positive trend. The mining industry seems to realise the importance of having positive relationship with the local community. However, the initiative is still restricted to a problem solving affairs. Hopefully, the scope of the current ad hock relationship will be extended to a more institutionalised type of relationship in the future. It is also hoped that the mining industry would develop the current initiative without reserving for government regulation on the matter. Community relationship would be more effective if it were developed based on industrial initiative.

Despite many critics from the public, the current government protection to the foreign mining investment would continue in the future. The current patronage relationship between the mining industry and the government, which is characterized with lack of transparency and public accountability, is the legacy of the past repressive government. Having been overprotected for three decades, the mining industry is inexperienced to interact with the realities currently emerge in Indonesia. The trend is that the government would not continually be in best position to protect the mining industry in the future. However, in the last four years during the current political, economic and social crisis, the mining industry have learnt to stand on their own capacity in resolving social problem at local level. At national level, the industry needs to institutionalise its identity as a good business citizen by launching strategic program to inform the public of the future mining model that would likely be acceptable to the people.

## **CHAPTER 6: GOVERNANCE AND MINERAL DEVELOPMENT IN SEARCH FOR ANSWERS**

### **6.1 Introduction**

Following the fall of the old repressive regime in 1998, there have been strong demands for reform in the political, economic and legislative systems. As the result of that demands, within the last three years, there has been a great deal of structural changes occurring in Indonesia. The most important reform occurred in the political system is changing of the old repressive system to democratic system. The political change is triggering other demands; the most important one is the demand for regional autonomy.

The two fundamental changes, for democratic system and for regional autonomy, have implicated the process of business and investment, including mining. Although the economic crisis has no direct impact to the mining industry, the mining industry has suffered substantially from the chaos created by the public response to the newly introduced democratic way of life. The chaos is not the result of the misused of the democratic opportunity, but is an expression of suffering from the three-decade repression.

What then is the essence of the people demand, and why have the people selected the mining industry as the most sinful legacy of the past autocratic regime? These two questions should be used as a reference for the establishment of the future mineral policy reform in Indonesia. Both the government and the mining industry should search for a fundamental concept of mineral development that would comply with the demand for democratic way of life and decentralised governance of natural resources.

In search for suitable concept for mineral development policy, the government and the mining industry should perceive the demand for democratic way of life as demand for recognition of the rights of the people, especially in relation with mineral development. The mining community in Indonesia should be aware that both democratic way of life and regional autonomy are irreversible process. To survive, the mining industry is to adjust itself to those processes. Having enjoyed privileges and protection in the past autocratic era, indeed, it would not be easy for the mining industry to take the new reality of life in Indonesia. However, there is no way around.

### **6.2 Brief History of Mining in Indonesia**

#### **6.2.1 Mining Operation**

The history of mining in Indonesia has started since the colonial days about two hundred years ago. Alluvial tin deposits have been mined in the islands of Belitung, Bangka and Singkep since 200 years ago, which are now still producing. Although tin deposits are depleting, Indonesia is still one of the biggest tin producer in the world. The tin minings in the Bangka Island were owned and operated by the colonial government, while those in

Belitung and Sinkep islands were owned and operated by private companies under the protection of the colonial government. In the year of 1958, the Indonesian government nationalised the three tin mining companies and merged them under a state-owned tin mining company, which is known as PT Timah. Before 1970s, tin mining was under state monopoly. In the beginning of 1970s, a joint venture company, PT Kobatin, established by an Australian company (75%) and PT Timah (25%), signed a second-generation contract of work with the government.

Nickel ores in Sulawesi has also been mined since the colonial time and continuing to date. A state-owned mining company, PT Aneka Tambang, and a Canadian owned mining company, PT Inco, are at this moment respectively producing ferro-nickel at the level of 10,000 tonnes and nickel matte at 50,000 tonnes level per annum. PT Inco signed a second-generation COW in 1978 for the duration of 30 years.

The history of coal mining can be traced back to Muara Enim open cast coal mining in South Sumatera and Sawahlunto underground mining in West Sumatera. Muara Enim coal mine, which is now operating in the nearby Bukit Asam prospects and under the state owned PTBA, producing coal at the level of 10 million tonnes annually. The state-owned underground coal mining in Sawahlunto is producing at insignificant level. The government is considering closing this historical underground mine.

The history of modern coal mining took place in Kalimantan, initiated by PT Kaltim Prima Coal (KPC), owned by Rio Tinto International, whose production is now at the level 10 million tonnes per annum. Subsequently, the coal rush, which was triggered by the energy crisis in mid 1980s, took place in Kalimantan. In the early 1990s, the government encourage the use of coal for domestic energy generation, replacing oil which role was focussed on export. The development of coal production within the last twenty years has been very dramatic. Coal production, which was barely a million tonne in the 1970s, is now approaching 80 million tonnes per annum.

Gold mining history commenced during colonial time at Rejang Lebong underground mine in southern part of Sumatera (Bengkulu) and the old state-owned underground mine at Cikotok, West Java. Alluvial gold deposits in West Kalimantan were also mined in small scale during the colonial time. Modern gold mining took place when the contract of work was active exploring other islands outside Sumatera, especially those islands related to volcanic activity such as Kalimantan, Sulawesi and smaller islands in the eastern part of Indonesia. The popularity of volcanic theory and the permissive stock market in Australia have been the main reasons for gold rush in Indonesia resulted foreign investment influx in the 1980s. Out of 99 CoW's signed in the 1980s, only a few were serious and possessing capability in mining. The great majority of them were junior mining companies, funded either by the speculating financiers or by junior companies relying on the permissive stock market in Australia. At the time of stock market crash in Australia at the end of 1980s and after the speculating financiers were fading out, these junior companies terminated or handed over the contract of work to other investors.

Significant discovery of gold prospects proved to be very limited in terms of the numbers of contract signed. Only a few serious and experienced mining companies have successfully come to production, amongst them are Rio Tinto owned PT Kelian Equatorial Mining

operating in East Kalimantan, Newmont's gold projects in North Sulawesi and Sumbawa, Australian's New Crest in Halmahera. Other smaller companies are operating on smaller gold prospects in South Sumatra and other small islands in the eastern part of Indonesia. The state owned PT Aneka Tambang discovered significant gold prospect in Pongkor, West Java in the end of 1980s.

Irian Jaya or West Papua as it was known, has its own unique mining history. Since the end of 1960s, an American company, Freeport Sulphur Company, has been exploring copper-gold prospects in the high altitude mountain ridge of Jajawijaya, Irian Jaya. Under PT Freeport Indonesia, this American Company signed a CoW with the Indonesian Government in 1974. Since there was no serious mineral activity in Irian Jaya before, including during the colonial time, Freeport contract with government is the first milestone of the history of mineral mining in Irian Jaya.

The first Freeport contract, which was also called the first generation CoW, was renewed in 1991. In the new contract, which was signed in December 1991, the government awarded Freeport extensive additional areas for exploration. However, at the time the contract was signed, Freeport has discovered the fantastic gold-copper prospects in Graberg, which is in the original contract area. This colossal and very rich gold-copper deposit has changed the history of mining in Indonesia. Indonesia is now the fifth largest producer of copper in the world. When copper-gold project operated by Newmont in Sumbawa reaches its full capacity, there is no doubt that Indonesian would be one of the biggest copper producer in the world.

### **6.2.2 Legislative History of Mining**

As institution, mining has been in unique position since the colonial time. This unique position of mining is characterised by its exclusive nature, due to the government protection. During the colonial time, the role of the mining industry was to provide raw material to the colonial country. The interest of the colonial government in mining was protected by the military and police force and exclusive legislative products.

The most recent comprehensive mining legislation issued by the Dutch government was Mining Act of 1930 (*mijnordonantie 1930*). The next comprehensive mining law is the current mining law (Law No11 of 1967), which was promulgated in 1967. Before 1930, there was Mining Law of 1899 (*Indische Mijwet 1899*). In terms of the interest of the people, it is interesting to compare the Mining Act of 1930 with the current Mining Law No.11 of 1967. Provisions concerning the people interest in the Mining Act of 1930 were more progressive than those in the Mining Law 1967. The Mining Act 1930 stipulated that upon the issuing of exploration permit and granting of mineral concession, those having objection due to possible violation of property or other interests, were given right to submit their objection to the government. The Mining Law 1967 does not accommodate such provision. Provision on procedure of submission of objection is accommodated in the regulation of lower level. In general, provisions of the current Mining Law 1967 are mostly similar to those in the Mining Act 1930.

Obviously, the spirit of the Indonesian mining legislation has not changed since the last 70 years. The CoW, which is an exclusive system for foreign mining investment, is separated from the Mining Authorization system stipulated in the current Mining Law. In short, the current Mining Law is applicable for domestic investment, and CoW is for foreign investment. This discriminative spirit originated from the colonial era, in which mining activity conducted by the western citizen was treated differently from that conducted by indigenous people or citizen of Asian origin.

The creation of CoW system was triggered by an accidental need in the late 1967, when Freeport was applying for mining permit. At that time, the government rejected the possibility of granting mineral concession to Freeport as it was practiced during the colonial time. On the contrary, Freeport rejected the possibility of following the Mining Authorization system as stipulated in the newly issued Mining Law. The compromise was to create off-regulatory system, which has power to secure the interest of the investor from the possible nationalization of foreign investment. Since then the CoW system was applied to foreign investment.

Since the independent day until 1967, the state-owned companies were the dominant actors in mining. In fact, provisions in the current Mining Law reflect the spirit of state monopoly in mineral sector. Before the promulgation of the current Mining Law in 1967, state-owned mining companies were practically monopolizing all mineral prospects. The state-owned PT Timah monopolized tin minerals, the state-owned coal mining company Perum Batubara. Monopolized coal prospects and the state-owned PT Aneka Tambang was assigned to develop other minerals outside tin and coal. With the growth of foreign investment, the state-owned mining companies are the second importance. Since then, the mining industry has been dominated by the foreign investment.

## **6.2 What is Happening?**

Improperly prepared local government and the sudden change from repressive centralistic system to democratic decentralised system within a very short time have plunged the governance of natural resources into chaos. The local government and the people demanded for fair distribution of wealth previously controlled by the central government. The people demanded for compensation against injustice practiced by the central government in the past, including but not limited to involuntary land acquisition by the industry, human right abuse and environmental damage caused by the industry. Violence is practiced in the form of relies, road blockade and obstruction to mining operations. Both the central and the local government are powerless in controlling such people actions. No one, including the local government and the people, is happy with the present situation confronting the mining industry that resulted disruption of production and investment cancellation.

Although reaction to the situation from the mining community has been very strong, a more positive understanding to the changes is a necessity. It seems that short-term and egocentric reaction to the destructive acts of the people is insufficient and in many ways counter productive. The mining industry has to be introspective through understanding what is happening in Indonesia. What the mining industry has been suffering from is only the tip of

an iceberg. To establish new mineral policy, one has to go deeper into the understanding of the situation.

In the spirit of introspection, one should admit that in the past the mining industry has enjoyed government protection as part of the growth-oriented development process practiced by the autocratic government at all cost. With that protection, the mining industry in Indonesia is trapped in the ivory tower of exclusiveness through the Contract of Work system. Currently, the mining community mistakenly labelled this ivory tower “lex specialist”.

The growth-oriented model of development practiced in the past is now questioned. The anti growth-oriented development groups argued that such model would not be operative without military intervention. According to these groups, the military supported development model in the past has resulted destruction of environment and natural resources as well as social-cultural life of the people. The anti-growth oriented development groups are now shifting gradually to become anti-development movement. Unconsciously, the struggle of keeping the mining industry’s position as “lex specialist” (read: remain exclusive) has fertile the land for anti-mining movement, which gradually shifting to anti-foreign mining investment.

Following the fall of the repressive regime in 1998, the central government was under strong pressure from all over the country to decentralise its authority through the framework of extensive regional autonomy. The central government had no alternative but fulfilling the demand for autonomy through the promulgation of Law No.22 of 1999 with a very short time of preparation. Everyone was aware at that time that withholding the fulfilment of the regional autonomy a little longer would cost the nation the possible disintegration of the Indonesian territory into smaller ethnic states.

The political changes and shifting of power in the government structure are only parts of the demands of the people. It is noteworthy to realise that all reforms are the people’s demands and therefore need to be formulated by the government and given proper response by the private business sectors. Failure to accelerate reform formulations would prolong the transitional period that has been proceeding for more than three years resulting chaos at all levels of society.

The drafting of the new mining law as the formulation of the people’s demand has been delayed for more than three years since the beginning of the power transfer from the past autocratic administration in 1998. What instrument then the people’ demand should be channelled through? The old Mining Law No.11 of 1967 is obviously obsolete, since it is centralistic and far from democratic. We are now approaching the end of the year 2001, and the prospect of the promulgation of a new mining law is still very remote, whereas governance of mineral resource has been in legislative vacuum for years, which resulted uncertainties.

The most crucial problem for the government in formulating the future mineral policy is the position of COW. On one hand, the government is responsible to respect the contract until the limit of its duration. On the other hand, the contract is on the centralised and exclusive system that does not comply with the people’s demand for democratic and

decentralized system. If the CoW were kept under the central government, it would be ineffective, since the central government has no jurisdiction over governance of socio-cultural dynamic, except through the police, military and judicial intervention. In reality, the mining operator would need the local government intervention to resolve any problem, and it is about time for the mining industry to be aware of this reality of life.

For the reason of regulatory consistency, the mining industry is strongly against any possibility of amending the CoW. There has been strong expression from the (foreign) mining industry that if CoW were amended, the foreign investors would pull out and Indonesia is left unattractive for investment. The government seems to yield to this pressure, even though this strong statement is doubtfully true. The issue, however, is not whether this statement is true or false, but why the CoW is not amendable, if it were for the benefit of all parties. Why don't the government and the investors sit together and mapping all matters of the CoW that are not in compliance with the new systems, and drafting resolution out of it. By so doing, the mining industry would be in a better position to interact with the local government and the people, and thus mining would be more acceptable to the people.

### **6.3 The Framework of Policy Reform**

The fundamental changes occurring in Indonesia at this moment is a new experience that has never happened in the history of the republic. Ever since Indonesia has never been in a fully democratic system and ever since it is in a centralistic system. The new Indonesia in the future is wished by the people to be fully democratic and decentralized. What is happening at this moment is the beginning of a long process to the democratic and decentralized system of the state governance. The mining industry, which the foreign investment is in dominance, is also wished to be an integrated part of such development system of Indonesia.

Understanding what has been occurring in Indonesia since the last four years, one should be aware that the nation is now facing a national problematique that fully different from that in the past. National problematique can be specified as a complex set of interacting elements, which in toto characterised the current state of the nation. As one of the interacting national elements, it would be impossible for the mining industry to be out of the framework of the current national problematique. Awareness of the current state of the nation is therefore a necessity for improving the performance of mineral investment policy in Indonesia.

With regard to the future mineral policy, the only option for the government is to completely reform the current mineral policy, which is obsolete in terms of the new national problematique. Indeed, it would be a great challenge for the government and experts to draft an integrated mineral governance system that will consist of interacting elements, which covers all aspects of mining, including environmental and social elements.

In understanding the new national problematique, one should be aware that Indonesia is a country of diversified natural resources, culture and ethnicity. Therefore, mineral is not the only natural resources Indonesia is endowed with. Agriculture is one of the traditional sectors that have been the people's source of life for many centuries. Indonesia is also

endowed with marine resources, which has not been developed. The country's extensive rain forest is not only a great economic potential, but its existence is also a necessity for global good life. The natural beauties and cultural values are attractions of global tourism. The current mineral policy, which promotes the concept of "maximized exploitation of mineral resource", has failed to comprehend this Indonesian uniqueness. In the future integrative mineral policy this concept should be replaced by mineral development policy that promotes "optimal exploitation of mineral resource".

The concept of optimal exploitation of mineral resource is a necessity for a natural resource based development model that is still likely to gain popularity in the future. The concept of optimal exploitation of mineral resource would also comply with the geographical feature of Indonesia that consists of islands of various dimensions and characteristics. The sustainability of the environmental functions of an area would greatly depend on the maintenance of the environmental capacity. Environmental functions are very essential to human life through generations. Mining operation tends to reduce the environmental capacity of an area, especially small islands. The future integrative mineral policy should consider mining variables, amongst others are technology application, economy of scale and market price factors with respect to restriction of environmental capacity.

Another important factor of consideration for the framework of the future mineral policy is poverty, which state of life most Indonesian people is in. Alleviating the structural poverty in the rural areas, especially in the remote ones, has been the greatest challenge for all parties, including the government and the international institutions of all branches of interest. Through poverty alleviation programs, the government has been spending billions of dollars to assist small rice farmers and small industry and business. However, not a single dollar has been spent for small miners because of the distorted understanding of mineral functions in the current mineral policy.

Most mineral occurrences are in remote areas which land is unsuitable for agriculture due to its high acidity or lack of fertile top soils, swampy and mountainous. However, mineral occurs everywhere all over the country and if they were properly functioned, they would be a great potential to alleviate poverty. A new mineral policy that is concerned with poverty is all what we need.

## **6.4 Sustainable Development Framework**

What approach is necessary to integrate the mining industry to the development system that would work effectively in the future Indonesia? The answer to this question would be very remote, if we kept thinking in terms of the current legislative framework. To come to the desired objective we should approach the current mining problems through universal requirements of development, and then integrate those universal requirements into the Indonesian situation. A clear concept of development for such integration of mining sector is a necessity. For that purpose, as first step, we have to address the universal concept of sustainable development.

Through the failures of the past development model practiced in Indonesia, we learnt that three elements were missing from the development policy, those are social justice,

sustainability and inclusiveness. The past development in Indonesia has failed to accommodate those three essential requirements for sustainable development.

#### **6.4.1 Social Justice**

The past development practiced in this country has created imbalances between over and under-consumers of the national resources. This imbalance is not acceptable to any standard of human values. The current multi-dimensional crisis in Indonesia is an eruption of these imbalances. One group enjoys excessive benefits from the development of natural resources, while the other struggles for existence without the means to produce even a bare subsistence livelihood. The people that live in poverty perceive the exclusive mining industry as an affluent community that create social injustice.

Social justice requires that all people have the means and opportunity to produce a minimum decent livelihood for themselves and their families. Social justice rejects the right of one person to self-enrichment based on the appropriation of the resources on which another person's survival depends. The transformed society must give priority in the use of natural resources to ensuring all people the opportunity for decent human existence.

#### **6.4.2 Sustainability**

Development practiced in the past supported increases in economic output that depended on unsustainable depletion of natural resources and the life support capabilities of its ecosystem. Such temporary gains are against the interest of future generation.

Sustainability does not require that nature be left untouched. It does require, however, that each generation recognise its obligation for stewardship of natural resources and ecosystem on behalf of future generation. The transformed society must use the natural resources in ways that will assure sustainable benefits for the future generations.

#### **6.4.3 Inclusiveness**

The development practiced in the past systematically deprived substantial segments of the population of the opportunity to make recognized contributions to the improved well-being of society. This practice has resulted alienation and social conflict.

Inclusiveness does not mean that everyone must enjoy equal status and power. It does mean, however, that everyone who chooses to be a productive, contributing community member has a right to the opportunity to do so and be recognised and respected for these contributions.

The future integrative mineral policy should be developed along these three pillars of sustainable development. It is, indeed, a giant leap for most of us in Indonesia and impossibility for the foreign mining industry to accept such model of development. However hard it would be, we have to accept the Indonesian reality and do something based on that reality for better future. Establishment of mineral policy that source from sustainable development model is the future mining reality.

#### **6.4.4 Social Transformation**

What is the main objective of mineral development? During the last three decades, this simple question has never been addressed properly, since our perceptions of development were focused on economic growth, export earning and such other similar category of objectives. We have never addressed the human element as an objective of development, whereas our constitution guides us to do so. Article 33, paragraph 3 of the 1945 Constitution stipulates that the main objective of the utilization of natural resources is for the maximum prosperity of the people. The whole stipulation of that article is as follows:

*Land, water, and natural resources contained therein are controlled by the state and shall be utilized for the maximum prosperity of the people.*

The past autocratic regime has failed to implement this constitutional message in the development of natural resources. It is therefore very important to elaborate the message in the article 33, paragraph 3 of 1945 Constitution in the coming new mineral policy. It is worth to note that by stipulating that article in the Constitution, the founding fathers of this country wished to guide us to conduct a “people centered” model of natural resource development, which in the past have been completely ignored.

In elaborating the article 33, paragraph 3 of the constitution, we should define the meaning of the word prosperity. Is it meant as limited as an economic prosperity, or in totality of the human needs? If it were meant in totality of the human needs, we have to include environmental and socio-cultural values as the element of prosperity. In short, we may say that the development of natural resource is to achieve social transformation, as the founding fathers wished and demanded by the people.

What would be the definition of social transformation as related to the development of natural resources? First, we should restrict the definition to social transformation at community level, as related to mineral resource development. Secondly, the social transformation is a continuing process that should not stop by the time the mineral is exhaustedly mined. Thirdly, the mining industry is supposed to be the designated prime mover of social transformation with duration that dependable on the life of the mine.

With those understanding, the social transformation may be defined as a process of unfolding or preserving of structures and processes within the community which can yield and secure the bases of life for all from generation to generation. This definition would emphasize the importance of preparing the community to continue development in the post mineral era within their own capacity.

Should social transformation be the burden of the mining industry? The foreign mining community in Indonesia frequently puts this question forward. Actually, community transformation should not be the burden of the industry if it were properly designed and prepared within the framework of integrative mineral development policy.

#### **6.4.5 Decentralised Governance of Mineral Resource**

Most foreigners mistakenly assume that transfer of authority from the central to the local government was purely the government decision. This assumption has somewhat affected the mining industry's negative attitude to the regional autonomy, and due to similar reason the mining industry has been very busy lobbying the central government to postpone the transfer of CoW governance to the local government. The central mineral authority seems to give a positive support to the wish of the mining industry.

It is worthwhile to note that decentralization of the central authority to the local government is a manifestation of the people wish and aspiration, especially of those who dwell outside Java. Although legitimately realization of autonomy was promulgated through Law No.22 of 1999, the demand for regional autonomy is not new, since there was Law No. 5 of 1974 of similar objective. Law No.5 of 1974 on Regional Autonomy has intentionally been made ineffective by the past autocratic regime, for it was against the economic interest of the political establishment. The repressive military control over all Indonesian territory had made the demand for autonomy resided since then.

How then one should perceive the regional autonomy in general and decentralization of mining in particular? Regional autonomy in reality is a political event that concern with transfer of power. However, we can also perceive regional autonomy as a system of development that would be in support of the establishment of sustainable natural resource development model. As one may have been aware, sustainable natural resource development will only be successful if it were based on spatial approach, which assume that development does not occur in an empty space. Any has its local man-resource-environment (MRE) system. The local MRE system is unique for every region, and therefore would need special consideration in the development planning. Regional autonomy would be a supportive instrument to achieve that goal.

#### **6.5 The Demand for Good Governance**

Following the fall of the old regime in 1998, there has been strong demand for good governance, especially in the management of natural resources. The demand for good-governance in natural resource management at the government level was triggered by the adverse impacts of the repressive and centralised system in the past, which was characterised by corruption and unbearable social cost of the economic growth.

In the centralised system, the cabinet ministers were in charge of the management of natural resources and each minister was responsible for the growth of the development of the natural resource under his/her jurisdiction. Each minister held full authority for natural resource allocation through designation of resource areas, such as mineral areas or areas allocated for exploitation of forest. Conflicts of interest amongst sectors were common, for example between mining and forestry, but their importance of such conflict was only considered from the investment's point of interest, and normally was normally resolvable by compromise amongst the governmental agencies.

The consequences of the natural resource allocation to the interest of the people were not of the minister's concern. The authority of a senior official to approve Environmental Impact

Assessment (EIA) was the only instrument possessed by the minister in charge of the respective sector to reflect his/her environmental concern. However, approval of EIA was not always free from the government's interest in increasing the investment growth, especially growth of foreign investment, since the ministers gained their credibility from accomplishing such undertaking rather than from protecting environment.

In the past-centralised system, investment was the product of the government transaction with the investor without any reference to the interest of the local people. The local government, who were supposed to be in the best position to acknowledge the people interest and problems as related to natural resource allocation, have functioned as the instruments of the central government to implement the decisions taken by the ministers without questions.

The CoW system for mining was the result of such direct transaction between the central government and the investors, which result an exclusive and lack of transparency relationship between the central government and the mining industry. This exclusive relationship with the central government has been so established that the mining industry had no difficulty in resolving any investment problems, including those of local origin. If problems emerged at local level, the minister in charge would pave the way for the investor to arrange settlement with the local government under the minister's guidance, including deployment of military forces.

In the autonomous system, exclusive relationship between the central government and the mining industry has lost its fundamental elements, which were central government absolute authority to natural resources and military support to repressive measures. There is need for the mining industry to established new relationship with the local government. Patronage relationship model between the mining industries with the local government in the future, similar to that practiced by the central government in the past, is feared to happen, as such model of relationship at the local level would be more harmful.

Having been excluded from the management of CoW for three decades, the local government has no experience in dealing with (foreign) mining investment, and the foreign investors are not familiar with the local affairs. This situation has created deep gap between the two and it would need sometime to close the gap. Strategic changes at corporate and industrial level in the mining industry would shorten the time needed by the local government to understand mining investment needs and problems.

Decentralization of natural resource management, from the central government to the local government, would not be effective without any change in the paradigm of mineral development. Discussion on the possibility of establishing a new paradigm for mineral development has been around since 1997, but the government has not indicated its intention to shift from the old paradigm of mineral resource management.

The most recent effort in the search of a new paradigm for natural resource development was the introduction of sustainable development, following the Rio Conference on Sustainable Development in 1992, in which forum Indonesia was an active participant.

Following the Global Agenda 21 (action programme for sustainable development) declared in the Rio Conference, Indonesia issued the National Agenda 21 in 1997 and Sector Agenda 21 in 2000. The Sector Agenda 21 on Mining is based on principles, which were derived from sustainable mineral resource management. However, this report has not yet received applause from both the government and the mining industry.

One of the essential principles in the sustainable development is good governance in the management of natural resources include transparency, public accountability and participation. Although government system is the main target of the establishment good governance, the private sector and civil society should also be prepared to play their roles in good governance system. These three pillars should synergistically exist in the good governance system.

The current management of mineral resource is still far from accommodating the principles of good governance. The relationship between the authority and the investor is not transparent to the public and participation of the public in the decision making process of mineral allocation is not appreciated. In major environmental disasters, for example, instead of disclosing information to the public, the mining industry is very defensive. The mining industry tends to be secretive and manipulative in releasing information. Some environmental disasters, for example, were quietly resolved through compensation settlement with local people. Consequently, the mining industry is vulnerable to the demand for public accountability.

Transparency in the good governance system should be practiced in accordance with the right of the people to gain information and the right to participate, which has been accommodated in the political reform in Indonesia. Concerning the importance of disclosing information to the public, the mining industry argue that the obligation of the mining company is to report to the government and it is the responsibility of the government to disclose information to the public.

Most foreign mining companies in Indonesia believe that as contractor to the government, a mining company should not be held accountable to the public. This mistakenly understood role of the foreign mining industry would not help the mining industry to contribute effectively to sustainable development. The mining industry should voluntarily establish its specific good governance system and strategy in order to optimise its role in the new paradigm of the future sustainable management of mineral resource in Indonesia.

One of the specific domains of the mining industry in the framework sustainable development is at the local level. In Indonesia, interaction of all interests occurs at this level. On economic sector, the mining industry may contribute to sustainable rural development in remote areas. Such contribution to sustainable rural economic development should be pre-programmed to accelerate poverty alleviation. In the protection of environment, the mining industry could contribute tremendously to sustainable development of environmental management in collaboration with the community. The Indonesian socio-cultural values, which root in the tribal community, has been gradually eroded by modernisation. In this area, the mining industry may help the community, not only to preserve, but also to enhance those cultural values.

In short, good governance in the mining industry at local level should be improved if the mining industry wished to optimise its contribution to sustainable development. Contrary to sustainable development principles, the current the mining industry in Indonesia focus the task of the management at local level on return on investment objectives. Such strategy is responsible for the failure of the mining industry to enhance transparency and public accountability at local, regional and national level.

## **6.6 Good Governance in the Civil Society**

One of the three pillars of good governance in the management of natural resources is at the civil society level. In the mining sector, the local community is in the best position to play an effective role of the civil society, and good governance should be established at this level. However, legacy of the past repressive systems would not make establishment of good governance at the community level easy.

During three decades of repressive ruling, the government regime had systematically negated the role of the local community leadership, which was replaced by the controlling role of the formal government agencies. When the repressive regime collapsed, the people rejected the military and the bureaucratic controlling leaderships, resulting vacuum in community leadership. In such situation, influx of various interests to the rural areas is inevitable. Having been without effective informal leadership for many years and interference of outside interest has made the local community lost their socio-cultural value and wisdoms. This phenomenon would not be a favourable situation to established sustainable development that would result poverty alleviation in rural areas.

The phenomenon of lack the local leadership effectiveness has contradicted the effort of preserving and protecting environment and natural resources. Deforestation of large areas, including protected forests and National Parks, by the local people are motivated by instant need for farming land. Mining of gold mineral by using mercury and using unsafe procedure has become a popular suicidal process. Therefore, it should be of the mining industry's concern to help the community to re-establishing effective informal leadership.

Recently, stakeholder concept for people participation is very popular in Indonesia. Stakeholder engagement to discuss legislative issues has been a routine procedure for the governmental offices, whereas for the mining industry it is still a rare occasion. There are some obstacles to engage wide range of stakeholders to discuss mining issues. The first obstacle is the reluctance of the mining industry to discuss problems related to the mining operation openly with the public. The second obstacle is the structure of the stakeholders, which consist of two dominating parties: the pros and the cons to mining, whereas independent party is usually powerless. In practice, stakeholder meeting is attended by either the pros or the cons. In the event that both sides are invited, the meeting was not productive. The anti-mining NGOs in many cases refuse to attend stakeholder meeting organised by the government. Consequently, stakeholder meeting organised by the government has becomes a one-side stakeholder meeting and is considered as a forum to justify pre-set decision.

## **PART II: BROADER PARTICIPATION OF STAKEHOLDERS IN THE DIALOGUE PROCESS**

A review of the opportunities for improved exchange of information on mining operations and their impacts amongst communities

### **I CURRENT COMMUNICATION PROBLEM**

According Law No. 1 of 1967 concerning Foreign Investment, foreign mining investment is implemented through contract of work system. The Mining Law No.11 of 1967, which is the basic mining law, does not contain any provision on foreign investment. However, the government provides an exclusive system for foreign mining investment, which is Contract of Work, as wished by Law No.1 of 1967, concerning foreign investment.

The CoW explicitly stipulates that the investor is the contractor to the government. This provision has created distorted perception amongst the foreign investor as if the foreign mining companies are relieved from public accountability. If there any public obligation a foreign mining company is obliged to fulfill, this obligation is to be served within the government's discretion. If a foreign mining company failed to fulfil public obligation, the mining company is not to be held accountable to the public. This distorted perception has strong influence to the exclusive character of the foreign mining industry in Indonesia.

During the three decades of the past repressive regime ruling, the foreign mining industry was under the strong government protection, which has made the mining industry adhered to exclusive character. In its established exclusive position, the foreign mining industry neither communicate with the public nor interested in satisfying the public demand for information concerning their mining operation. The only channel of information concerning mining operation is the official report submitted to the government.

In the recent years, public demand for transparency is increasing and the foreign mining industry is not ready to cope with the demand. The foreign mining industry is now in a position that beyond the reach of the public. Direct communication between the foreign mining industry and the public, at national and local level, just does not exist and the gap between them is increasingly wider. This communication gap is potential in creating confrontation with public. Being at the other side of the fence, the foreign mining industry perceives any critic from the public as vulnerable to their business position, resulting defensive press releases to deny the critic. Indeed, in the last three years, the press has been functioning as media of confrontation rather than for communication between the public and the foreign mining industry.

Stakeholder meeting or open discussion at the national level organized by the mining industry is hardly exist. Such meeting is normally organized by independent third party, in which the mining industry is one of the participants. However, any stakeholder meeting

organized by the third party all the time turned into a confrontational forum, and therefore, positive communication to resolve problems did not occur. This situation is characteristic in mining, since in the other sectors situation is more positive, in a sense that the relationship between the NGOs, industry and the government is more collaborative.

## **2 OPPORTUNITIES FOR IMPROVED EXCHANGE OF INFORMATION ON MINING OPERATIONS**

Under the current regulatory framework, CoW system in particular, the mining industry is not obliged to release any information concerning mining operation to the public. Any information concerning mining operation is submitted to the government as an implementation report of the contract. Under the confidentiality provision of the CoW, the government deems to treat information from the mining industry confidential. Under the current system, therefore, it is unlikely for the mining industry to release information concerning mining operation voluntarily.

The only opportunity to improve exchange of information is to convince the government and the mining industry to change their policy concerning information from mining operation. The government and the mining industry should be aware that releasing periodic structured information of mining operation for public consumption is a necessity to improve understanding of mining in this country.

With new awareness of transparency, the mining industry should support independent organisation or individual to organize information on mining and presenting them to the public professionally. Internet website, periodicals and magazine, are the effective media for exchange of information on mining operation, including company's intended programs and problems of operation, investment, environment and social. This kind of media is expected to be an effective forum of communication rather than just a media for formal news and statements. Analysis from both the mining industry and the public should be part of the media of this kind.

Mining companies organise themselves in the Indonesian Mining Association (IMA), which has position and opportunities to represent the mining industry in improving communication with the public. Since its establishment twenty years ago, however, IMA has been functioning more as a lobbying body for investment interest. Consequently, IMA has never been in good position in developing its capacity and credibility to promote mining acceptance.

Communication gap between the mining industry and the local government is also quite wide. Having been excluded from the mining industry governance for three decades, the local government is hardly familiar with the bread and butter of mineral and mining, and the mining industry is ignorance about the local problems. The best opportunity for the mining industry in improving communication with the public is through provision of information to the local government.

Public ignorance about mining implicates public perception, creating suspicion and prejudice against foreign mining industry, especially amongst the younger generations joining NGOs and political parties. Public sensitivity on environmental and social issues in mining areas is somewhat caused by lack of information on mining and mining industry.

## **Suggested approaches to improving dialogue and facilitating better and more effective multi-stakeholders discussions**

Having learnt from various experiences during the last four years, we may draw a conclusion that stakeholder in mining at national level splits into two dominant groups that would never be in accord. In one group are organizations and individuals having interest in mining or representing the mining interest and the other are those against large-scale mining. If the definition of multi-stakeholder were to include those two groups, then multi-stakeholder discussion would not be the right forum to resolve problems in the mining sector. It would be impossible to improve effectiveness of such multi-stakeholder discussion. If multi-stakeholder at national level to proceed without participation of those against mining, as is occurring at present, there were danger that such stakeholder meeting would lack of credibility.

It is therefore recommendable for not emphasizing stakeholder meeting at the national level as an approach to improve dialog between the mining industry and the member of the society. Instead, we suggest to improving multi-stakeholder dialog at the provincial and district level.

Under the framework of regional autonomy, improving and enhancing dialog at provincial and district level is a necessity for the mining industry. Dialog at these levels are highly credible since everybody in the area is directly influenced by the problems and the benefit of the mining industry. In short, at the provincial and the district level it is likely that everybody would feel to be in the same boat. This kind of feeling barely exists at the national level.

Multi-stakeholder meeting at the provincial and district levels may serve two purposes, the one is to obtain input for policy concerning national and international issues and secondly is to resolve problems created by and confronting the mining industry. According to the Law No.22 of 1999 concerning Regional Autonomy, great majority of undertakings are decentralized to the district level, including environmental and socio-cultural, health, land management, public work, etc. In other words, the most aspects of mining, except technological, are within the jurisdiction of the local government.

Development of dialog at the community level should be part of the establishment of good community relationship, and therefore should be sustainable and institutionalized. The purpose of dialog at community level is for resolving problems concerning the interest of the local people. Although dialog at community level is something that the mining industry cannot live without, in certain issues it should not replace the function of dialogs at provincial and district level. Environmental issues, for example, would need dialogs in all levels proportionally.

Two factors influence the effectiveness of stakeholder meeting, and those are funding and the organizer of the event. The mining industry sponsored stakeholder meeting at national level is not recommendable, whereas at provincial and district level it is likely to be acceptable without too much suspicion. Nationally recognized independent institution is the most appropriate organizer for stakeholder meeting at national level. Although such organization is plenty, to find one that knowledgeable in mining is not easy. University may be the best choice for this purpose. At the provincial and district level, the local university is the most credible institution to organize multi-stakeholder meeting. The second choice to conduct this undertaking is the local government.

However, both the local government and the university have a common shortcoming, which tend be bureaucratic and unintentionally siding to the mining industry. This tendency may reduce the effectiveness of the discussion. To overcome this shortcoming, collaboration with knowledge based NGO may be necessary. Ecomine NL as an independent non-profit organization, for example, has frequently collaborated with local government in organizing multi-stakeholder meeting at provincial level discussing mining issues.

The important factor in improving the dialog at provincial and district levels is initiative from the mining industry. Taking initiative for multi-stakeholder meeting per se is an effective gesture of willingness to break through the exclusive character of the mining industry in Indonesia. Initiative from the mining industry for organizing multi-stakeholder dialog should differ from sponsoring stakeholder meeting for promoting the interest of the mining industry, as frequently held in the past.

## **PART III**

The first purpose of this chapter is to describe the key areas where gaps in knowledge, practice, policy, communications and/or capacity, require stakeholder engagement and analysis that is more detailed. The second purpose is to describe an agenda and specific proposals for future progress in this sector.

### **I KEY AREAS IDENTIFIED**

Five areas are identified, in which perspective of the various parties concerned are not in accord due to the different understanding of principles and problems in the areas. Those areas are:

5. Land access for mining
6. The role and position of the community in mining
7. Small-scale mining
8. The role of the local government in mining

#### **I.1 Land Access for Mining**

The government has been preparing for the amendment of the Agrarian Law No.5 of 1960 for several years and it is now at the stage of drafting. Although it is a common practice to involve many government agencies in drafting a law, it is worth for the mining sector to having basic standpoints in the use of land for mining to be accommodated in the land use legislation and / or mining legislation. The standpoint should cover the interest of both the mining investor and landowners, including cultural land ownership.

The area of discussion in land use for mining should include land use during exploration, status of land during production period and after mining, rehabilitation of land after mining and the right of the landowner to reject mining. Access to cultural land for mining is another issues that need research and in-dept discussion in a series of extensive stakeholder engagements.

#### **I.2 The Role and Position of the Community in Mining**

The role of community in mining is controversial and need an in-dept research and series of stakeholder involvement. Research and stakeholder engagement in this issue has two main purposes. The first is to understand the capacity of the community and urgency of involving them in the mining process. The second purpose is to explore the possible procedure of community involvement and the prospect for establishment of legislative framework for community involvement.

### **1.3 Small-Scale Mining**

The understanding of small-scale mining has been distorted by the practice of illegal mining. The devastating impact of illegal mining has negated the positive values of small-scale mining. The challenge is to establish a concept of small-scale mining that would not develop into illegal or improper mining practices. One of the possible concepts suggested is a community-based small-scale mining or community mining for short.

Research and stakeholder discussion should cover issues that may relate to the interest of large-scale mining industry, environmental management, socio-economic and socio-cultural development, technical assistance and funding possibilities, marketing prospects and assistance, and institution.

### **1.4 The Role of the Local Government in Mining**

Regional autonomy is being implemented in this country creating controversy in the decentralization of mining. The debate on the importance of decentralizing contract of work to the local government is continuing and the prospect of resolve is uncertain, resulting vacuum of policy. This vacuum has created fear of disruption of mining investment and damage of environment as well as mineral resource.

There is no doubt that the local government is to be in the driving seat. Two main issues are subject to discussion and research are: how the local government should play its role in mining and how the mining sector has to be adjusted along the line of the regional autonomy in terms of sustainable development of mineral resource.

## **2 PROPOSED AGENDA**

To improve mining situation in Indonesia, promotion of sustainable concept for mineral development is a necessity. The purposed agenda for action is as follows:

### **2.1 Formatting Sustainable Mineral Development Concept**

Sustainable development is an open concept that needs to be formatted in accordance with the local variables and needs. Discussion on formatting should cover variables of the followings: development objective, characteristic of mineral industry and mineral investment, regional autonomy, socio-cultural situation and institution, environmental capacity, and land ownership.

### **2.2 Action Agenda:**

- Workshop, training, professional discussions
- Stakeholder engagements

- Approach to regional system development (spatial planning systems, socio-cultural mapping/ data base). This is a research and development activities.
- Approach to mining industry (understanding, participation, integration of systems)

### **3 COMMUNITY MINING MODEL**

Development of community mining or community based small-scale mining would need an extensive promotion in order to eliminate distorted understanding of SSM, which confuse SSM with illegal mining and negation of the role of SSM for alleviating poverty. The purpose of the promotion of community mining, therefore, is to enhance the role of a community based SSM for supporting poverty alleviation program, to promote the role of community in environmental management in mining, to integrate various resource potentials capable of assisting community mining at national, provincial and district levels.

#### **3.1 Action Agenda:**

- Workshop, training, professional discussions
- Stakeholder engagements
- Approach to regional system development (spatial planning systems, socio-cultural mapping/ data base). This is a research and development activities.
- Approach to mining industry (understanding, participation, integration of systems)