

# Sharing the Wealth of Minerals

A report on Profit Sharing with local communities



Centre for Science and Environment

Direction

**Chandra Bhushan**

Research

**Sugandh Juneja**

Research Contribution

**Ishikaa Sharma**

Design and Layout

**Surender Singh**

We are grateful to the Ministry of Environment & Forests & (MoEF), Government of India, United Nations Development Programme (UNDP), Swedish International Development Cooperation Agency (SIDA) and Evangelischer Entwicklungsdienst e.V. (EED) for their support.



© 2011 Centre for Science and Environment

Material from this publication can be used, but with acknowledgement.

**Prepared by:**

**Centre for Science and Environment**

41 Tughlakabad Institutional Area

New Delhi – 110 062, India

**Ph:** 91-11-2995 6110, 2995 5124, 2995 6394, 2995 6499

**Fax:** 91-11-2995 5879, 2995 0870

**Email:** chandra@cseindia.org **Website:** www.cseindia.org

# Contents

<b>1. Mining in India</b>	<b>3</b>
Production and Value	3
Employment	5
Contribution to Exchequer	6
<b>2. Impacts of Mining</b>	<b>9</b>
<b>3. Displacement, Resettlement and Rehabilitation</b>	<b>11</b>
<b>4. Natural Resource Rent and Benefit Sharing</b>	<b>13</b>
Mechanisms for Extracting Resource Rent	14
Benefit Sharing with Affected Communities	15
<b>5. Global Practices: Benefit sharing with communities</b>	<b>18</b>
Papua New Guinea	18
PNG Mining Laws	19
Mechanisms for Benefit Sharing	20
Case Studies	20
Canada	22
Land Ownership	22
Mining Regulations	23
Mechanisms for Benefit Sharing	23
Case Studies	24
Australia	25
Mining Regulations	25
Mechanism for Benefit Sharing	26
United States	27
Norway	28
Botswana	28
<b>6. The Mines and Minerals (Development and Regulation) Act</b>	<b>30</b>
Draft MMDR Bill, 2011	31
What goes to communities/affected people as per the draft	31
Provisions for taking action in case of non-compliance	32
Rights of communities	33
Fees/royalty/security/fines	33
Institutions/funds/bodies	34

<b>7. Conclusion</b> .....	<b>37</b>
What 26 per cent means for the local communities?.....	37
Will profit sharing reduce the profitability of mining companies and make mining unviable in the country?.....	42
Way ahead.....	43
Identifying beneficiaries.....	43
Where this money should be spent?.....	43
Who should administer the money?.....	43
<b>References</b> .....	<b>45</b>
<b>List of abbreviations</b> .....	<b>50</b>
<b>List of Tables and Graphs</b> .....	<b>51</b>

# CHAPTER 1

## Mining in India

India is a mineral rich country with more than 20,000 mineral deposits. The Indian mining industry is at par with the world's. India is the second largest producer of chromite, barytes and talc, third largest producer of coal and lignite and fourth largest producer of iron ore and kyanite, andalusite and sillimanite<sup>1</sup>.

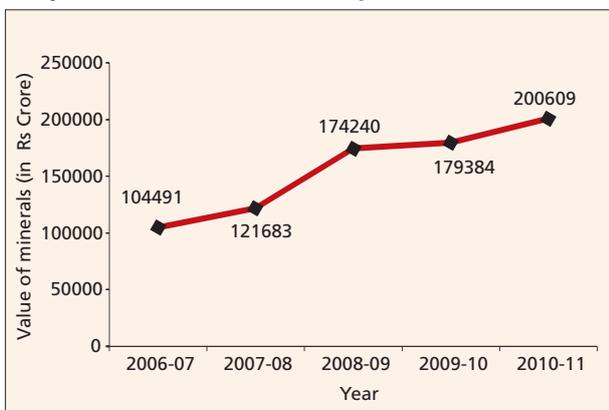
Minerals are classified into fuel minerals (coal, lignite, oil and gas), major minerals, minor minerals and atomic minerals in India. Major mineral can in turn be classified into metallic (iron ore, chromite, lead and zinc), non-metallic minerals (limestone, dolomite, phosphorite, garnet, silica, etc.) and precious metals and stones (diamond, gold, silver, etc.). Minor minerals are stone, sand, marble, sandstone, etc. India produces about 90 minerals which are four fuel, 10 metallic, 50 non-metallic, three atomic and 23 minor minerals.

### Production and Value

The country produced 84<sup>2</sup> minerals in 2010-11, valued at ₹2,00,609 crore<sup>3</sup>. This is about twelve per cent increase from the value of minerals produced in the country in 2009-10 at ₹1,79,384 crore (see *Graph 1.1: Value of mineral production in India*).

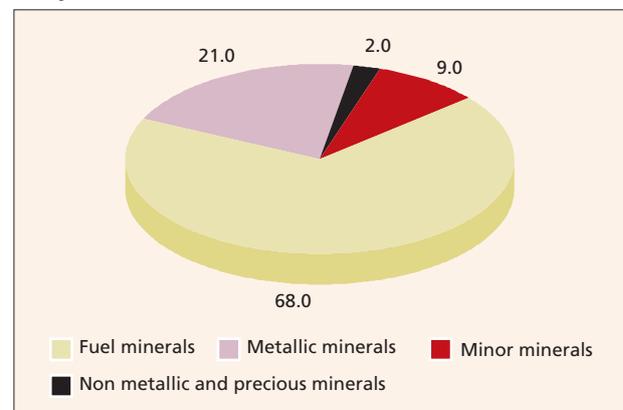
Fuel minerals contributed 68 per cent of the total value of minerals produced (see *Graph 1.2: Contribution of minerals to value*). Metallic minerals contributed about 21 per cent while minor minerals contributed a little over nine per cent. Non-metallic and precious minerals together contributed the remaining two per cent.

**Graph 1.1: Value of mineral production in India**



Source: Anon, 2011, *Annual Report 2010-11*, Ministry of Mines, pg. 144.

**Graph 1.2: Contribution of minerals to value**



Source: Anon, 2011, *Annual Report 2010-11*, Ministry of Mines, pg. 144.

Within fuel minerals, solid fuels (coal and lignite) contributed about 39 of the value while liquid fuels (natural gas and petroleum) contributed 61 per cent<sup>4</sup>. Within metallic minerals, iron ore is the largest contributor to value at 83 per cent followed by chromite at five percent and zinc concentrates at four per cent<sup>5</sup>. Limestone contributes the maximum share to value of non-metallic minerals at 67 per cent followed by phosphorite at about nine per cent and barytes at four per cent<sup>6</sup>.

Mining and quarrying sector accounted for 2.26 per cent of the total Gross Domestic Product (GDP) (at constant prices) in 2010-11 at ₹1,10,482 crore<sup>7</sup>. Its contribution the previous year stood at 2.5 per cent with ₹1,09,182 crore<sup>8</sup>. The contribution of the sector to GDP has stood at about 2.2-2.5 per cent in the last decade<sup>9</sup>.

The number of reporting mines<sup>10</sup> in India was 2,628 in 2010-11 as opposed to 2,999 in 2009-10<sup>11</sup>. Most of the mining activities are concentrated in Gujarat, Andhra Pradesh, Jharkhand, Madhya Pradesh, Rajasthan, Karnataka, Odisha, Tamil Nadu, Maharashtra, Chhattisgarh and West Bengal. These 11 states together account for 92 per cent of the mines in the country<sup>12</sup>.

In India, a miner has to take a Reconnaissance Permit (RP) to carry out regional exploration, a Prospecting Licence (PL) to identify potential resource and a Mining Lease (ML) for mining of a mineral.

There were about 9,400 MLs<sup>13</sup> in India covering an area of half a million hectare (ha) as of March 2009<sup>14</sup>. Private sector has 95 per cent of the total number of MLs and 70 per cent area under MLs while the public sector has only five per cent of the MLs and 30 per cent of the area under MLs in the country<sup>15</sup>. Rajasthan had the maximum leases both in terms of numbers and area. Odisha came in second in terms of area covered followed by Karnataka and Andhra Pradesh. Limestone had the maximum MLs – 1733, followed by quartz – 1434, iron ore – 769 and felspar – 667<sup>16</sup>.

Value of ores and minerals exported from India was ₹1,09,296 crore in 2008-09<sup>17</sup>. This accounted for 13 per cent of value of all exports from India<sup>18</sup>. Diamond contributed more than 65 per cent of the minerals export value<sup>19</sup>. These exports were to 193 countries with maximum exports to China followed by Hong Kong, UAE, USA and Belgium<sup>20</sup>. Value of imports of minerals and ores was ₹5,14,509 crore which accounted for 37 per cent of the total value of imports in India<sup>21</sup>. Petroleum was the largest import item with more than 65 per cent share in the total value of imports to the country<sup>22</sup>. Minerals were imported from 134 countries with Saudi Arabia as the top importer followed by UAE, Iran, Nigeria, Kuwait and Iraq<sup>23</sup>. Domestic production graph of some of the main minerals in India are given below:

## Coal

Seven per cent of the world's proven coal reserves are found in India<sup>24</sup>. The production of coal was 537 million tonnes in 2010-11 in the country which was only a one per cent increase from that in the previous year at 532 million tonnes<sup>25</sup>. The value of coal produced in 2010-11 stood at ₹49,012 crore<sup>26</sup>. At present, more than 70 per cent of the coal produced in India is used in the power sector<sup>27</sup>. Chhattisgarh is the largest coal producing state with a share of 21 per cent, followed closely by Odisha and Jharkhand with about 20 per cent contribution each.

## Bauxite

Bauxite production declined by four per cent to 13.4 million tonnes in 2010-11 from 14 million tonnes in 2009-10<sup>28</sup>. Value of bauxite production in 2010-11 was ₹503 crore<sup>29</sup>. Aluminium industry accounts for more than 85 per cent of bauxite consumption in the country<sup>30</sup>.

## Iron ore

Hematite and magnetite are the most important iron ores in India. The production of iron ore in the country stood at 212.6 million tonnes in 2010-11 with a value of ₹34,852 crore<sup>31</sup>. Odisha (34 per cent), Karnataka (21 per cent), Goa (15 per cent) and Chhattisgarh (14 per cent) are the leading producers of iron ore<sup>32</sup>. Close to 98 per cent of iron ore consumed domestically is used by the iron and steel (including sponge iron) industry<sup>33</sup>.

## Limestone

Limestone production was 240 million tonnes in 2010-11 with a value of ₹3,220 crore<sup>34</sup>. Limestone is mainly used in the cement industry. Leading producer states of limestone are Andhra Pradesh, Rajasthan, Madhya Pradesh, Gujarat, Tamil Nadu, Chhattisgarh and Karnataka.

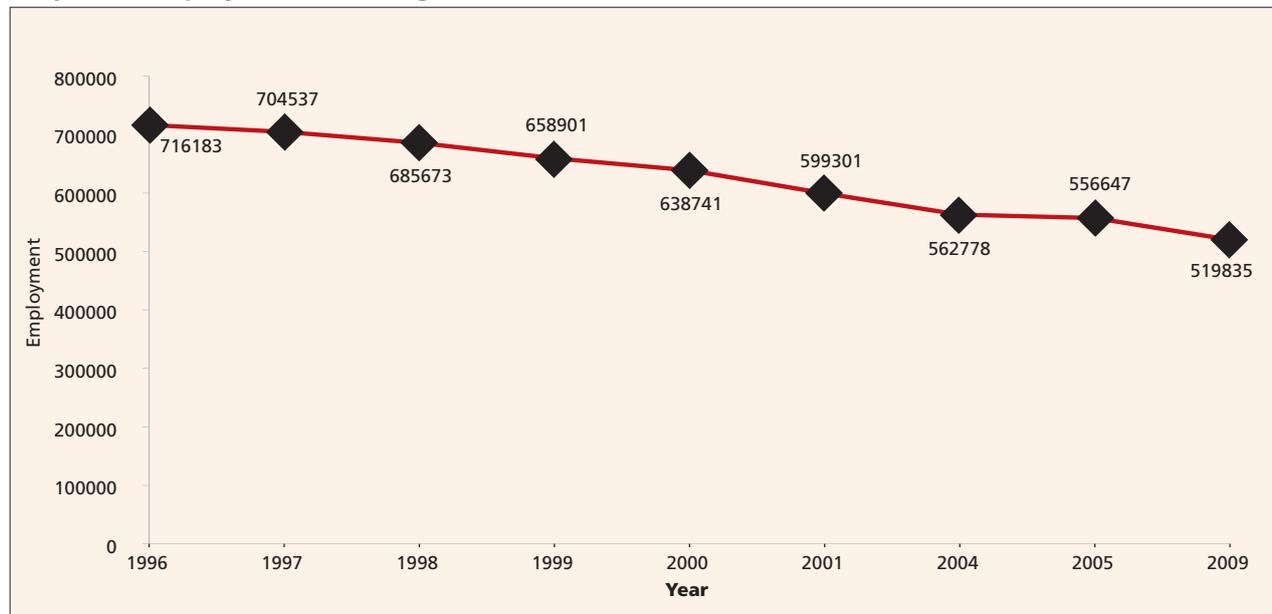
## Copper

India produced about three million tonnes of copper in 2008-09<sup>35</sup>. Rajasthan accounted for half of the production while the other half was accounted for by Madhya Pradesh and Jharkhand<sup>36</sup>.

## Employment

The mining industry provides direct and indirect employment to people. This has been decreasing over the years even though production of minerals has increased (see *Graph 1.3: Employment in mining sector*). The average daily employment of labour engaged in the sector stood at about half a million in 2008-09<sup>37</sup>. Public sector accounted for 81 per cent of this labour force and private sector accounted for 19 per cent<sup>38</sup>. Labour engaged in fuel minerals was 75 per cent of the total, metallic minerals 16 per cent and non-metallic mineral nine per cent<sup>39</sup>. This exhibits a decrease of 27 per cent from 1991 levels when the

**Graph 1.3: Employment in mining sector**



Source: a. Chandra Bhushan et al, 2008, Rich Lands Poor People - Is Sustainable Mining Possible?, Centre for Science and Environment, New Delhi, pg. 59.  
 b. Anon, 2009, Indian Minerals Yearbook 2008, Indian Bureau of Mines, Nagpur, pg. 6.  
 c. Anon, 2010, Indian Minerals Yearbook 2009, Indian Bureau of Mines, Nagpur, pg. 6.

average daily employment stood at 7,16,183. Due to increased mechanisation, there has been a shift towards more capital intensive mining forms than labour intensive ones. This means, contrary to popular belief, the industry's potential to generate employment will reduce further.

## Contribution to Exchequer

The mining industry contributes to the government exchequer through royalty, dead rent, cess, sales tax and duties. Royalty is a kind of tax that mining companies pay to the government in return of the right to extract a mineral. It is based on the amount of mineral extracted/consumed at specific rates. For most minerals the rates are fixed on an *ad valorem* basis which means as a percentage of sales price. For some metals, the sale prices are based on the London Metal Exchange prices. For minerals like coal and limestone, royalty rates are decided on a fixed amount per unit dispatch basis.

Globally, the *ad valorem* system of royalties is more prevalent. This system takes into account the rise in prices of minerals ensuring that the governments derive benefits out of the price rise too. The problem with this system arises in deciding the price/value on which the rate will be based on. This leads to under reporting of amount of minerals or wrong reporting of the grade of ore.

**Table 1.1: Royalty contribution of major Indian mining companies**

Company	Parameter (in ₹crore)	2008-09	2009-10
Coal India Limited (CIL)	Gross sales	46131	52188
	Royalty, cess and dead rent burden (RCDB)	5363	5728
	RCDB as percentage of gross sales	11.00 %	11.63 %
Gujarat Mineral Development Corporation (GMDC)	Gross sales	981	1066
	RCDB	56	62
	RCDB as percentage of gross sales	5.85 %	5.71 %
MOIL Limited	Gross sales	1285	966
	RCDB	35	35
	RCDB as percentage of gross sales	2.72 %	3.59 %
National Mineral Development Corporation (NMDC)	Gross sales	7559	6230
	RCDB	63	361
	RCDB as percentage of gross sales	0.83 %	5.79 %
Rajasthan State Mines and Minerals Limited (RSMM)	Gross sales	944	914
	RCDB	102	97
	RCDB as percentage of gross sales	10.75 %	10.55 %
The Singareni Collieries Company Limited (SCCL)	Gross sales	6396	7826
	RCDB	571	672
	RCDB as percentage of gross sales	8.93 %	8.59 %
Sesa Goa Limited (SGL)	Gross sales	5295	6654
	RCDB	14	161
	RCDB as percentage of gross sales	0.25 %	2.42 %

**Source:** CSE analysis based on annual reports of companies.

The royalty collected from non-coal minerals in the country was ₹4,470 crore in 2010-11<sup>40</sup>. The increase in royalty is attributed to the change in royalty rates since August 2009. Iron ore accounted for 41 per cent of the royalty collected and limestone accounted for 30 per cent (see *Graph 1.4: Mineral-wise royalty*)<sup>41</sup>.

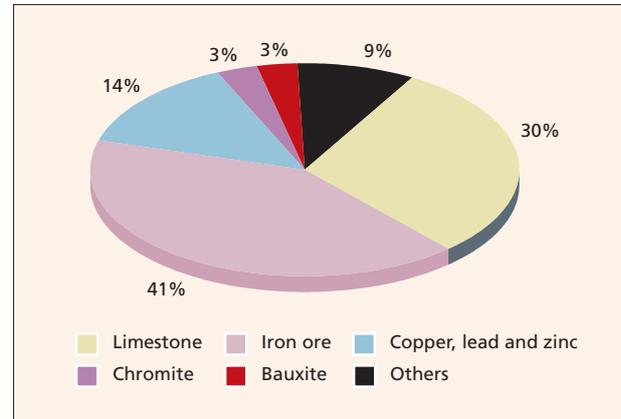
In 2009-10, royalty collected from major minerals stood at ₹3,997 crore<sup>42</sup>. Rajasthan accounted for one fourth of the total royalty collected in the country in 2009-10<sup>43</sup>. Odisha came in second with a contribution of 16 per cent, Chhattisgarh 12 per cent, Karnataka 11 per cent and Andhra Pradesh nine per cent<sup>44</sup>.

Analysis of a few standalone mining companies shows that royalty, cess and dead rent<sup>45</sup> burden in the country is about six per cent of the gross sales of the company with a range of 0.25 to 12 per cent (see *Table 1.1: Royalty contribution of major Indian mining companies*). Coal India Limited (CIL) contributed the maximum percentage of its gross sales as royalty, cess and dead rent, close to 12 per cent for 2009-10.

For companies with captive mines, this ratio of RCDB to gross sales ranged between 0.7 to six per cent with an average of three per cent (see *Table 1.2: RCDB for companies with captive mines*). The lowest ratio was recorded for National Aluminium Company (NALCO), only 0.87 per cent.

A mining company in India also pays other taxes like corporate tax, education cess, sales tax and excise duty. If all these are taken into account, then the tax burden (ratio of total tax including RCDB to gross sales) ranges between 14 to 34 per cent while the average stands at 22 per cent (see *Table 1.3: Tax burden of standalone mining companies*). SCCL exhibited the lowest tax burden ratio of 14 per cent in 2009-10 while NMDC exhibited the highest – 34 per cent. On the other hand profit after tax is more than 30 per cent of gross sales on an average for these companies.

**Graph 1.4: Mineral-wise royalty**



Source: Anon, 2011, *Draft Recommendations for the Allocation and Pricing of Natural Resources: To What Extent can we use market mechanisms?*, Cabinet Secretariat, New Delhi, pg. 12.

**Table 1.2: RCDB for companies with captive mines**

Company	Parameter (in ₹crore)	2008-09	2009-10
Hindustan Copper Limited (HCL)	Gross sales	1349	1430
	RCDB	27	38
	RCDB as percentage of gross sales	1.96 %	2.62 %
Hindustan Zinc Limited (HZL)	Gross sales	8737	6142
	RCDB	5110	364
	RCDB as percentage of gross sales	5.85 %	5.93 %
National Aluminium Company Limited (NALCO)	Gross sales	5518	5311
	RCDB	39	46
	RCDB as percentage of gross sales	0.71 %	0.87 %

Source: CSE analysis based on annual reports of companies.

**Table 1.3: Tax burden of standalone mining companies**

Company	Parameter (in ₹crore)	2008-09	2009-10
CIL	Gross sales	46131	52188
	Total tax	9412	13113
	Total tax burden	20.40 %	25.13 %
GMDC	Gross sales	981	1066
	Total tax	182	201
	Total tax burden	18.55 %	18.86 %
MOIL	Gross sales	1285	966
	Total tax	380	277
	Total tax burden	29.57 %	28.67 %
NMDC	Gross sales	7559	6230
	Total tax	2326	2133
	Total tax burden	30.77 %	34.24 %
RSMM	Gross sales	944	914
	Total tax	162	147
	Total tax burden	17.16 %	16.08 %
SCCL	Gross sales	6396	7826
	Total tax	901	1093
	Total tax burden	14.09%	13.97%
SGL	Gross sales	5295	6654
	Total tax	1224	1524
	Total tax burden	23.12 %	22.90 %

Source: CSE analysis based on annual reports of companies.

Similarly, for companies with captive mines this total tax burden varies from eight per cent to 40 per cent (see Table 1.4: Tax burden of companies with captive mines). The average tax burden for these companies across two years stands at 21 per cent. For 2009-10, NALCO recorded the lowest tax burden at 13 per cent while HZL recorded the highest at 32 per cent. A World Bank report of 2006 estimated that the effective tax rate<sup>46</sup> on mining industry in India is about 44 per cent<sup>47</sup>. This is lower than the effective tax rates in other major mineral-producing countries in the world – Canada 60 per cent, PNG 55 per cent, South Africa 45 per cent and Indonesia 50 per cent<sup>48</sup>.

**Table 1.4: Tax burden of companies with captive mines**

Company	Parameter (in ₹crore)	2008-09	2009-10
HCL	Gross sales	1349	1430
	Total tax	110	195
	Total tax burden	8.15 %	13.64 %
HZL	Gross sales	8737	6142
	Total tax	3423	1976
	Total tax burden	39.18 %	32.17 %
NALCO	Gross sales	5518	5311
	Total tax	1118	695
	Total tax burden	20.26 %	13.09 %

Source: CSE analysis based on annual reports of companies.

## CHAPTER 2

# Impacts of Mining

**M**ining is important because it feeds into a number of industries as raw material. It is imperative that we take into consideration what is mined, where it is mined and how it is mined. Mining in forests or mountain tops can prove devastating as there are changes in topography, aesthetics and it also triggers impacts on local hydrology. Mining has a huge impact on land and associated natural resources which are a source of livelihood for people.

Almost all of the country's minerals are spread in regions that also hold most of its forests, tribal population and major river systems. The average forest cover of the 50 major mineral producing district stands at 28 per cent<sup>49</sup>. The total forest cover in these districts, 1,18,90,400 ha is about 18 per cent of the country's forest cover<sup>50</sup>. Forest land has constantly been getting diverted for the purpose of mining among other developmental projects. Close to 0.1 million ha of land for 1200 mines has been diverted across India during 1980-2005<sup>51</sup>. The diversion affects the ecosystem of the area and also the livelihood of tribals who depend on it for sustenance. Estimates say that states leading in mineral production are also the ones where maximum forest diversion for mining has happened<sup>52</sup>. It is important we recognise that critical ecosystems are important and legislate go and no go areas for mining. The special areas can be identified by taking into account comprehensive and cumulative environment, social, economic and ecological impacts.

Most of India's iron ore reserves are along the courses and watershed of rivers like Indravati, Baitarani, Tungabhadra and Mandovi. Most of the coal reserves of the country are also located within river basins – Damodar, Godavari, Son, Kanhan and Mahanadi-Brahmani. Water consumption in mining is very large due to the huge amounts of minerals extracted. In addition to using huge quantities of water, mining also depletes groundwater. During mining the breaching of groundwater table is a very common phenomenon which lowers the table. Dewatering during underground mine operations also affects groundwater. Mines release the pumped out water into nearby water-courses causing flooding and water pollution.

Mine waste also causes water pollution problems like acid mine drainage, heavy metal pollution, pollution from processing chemicals and erosion and sedimentation. Waste in mining is generated due to extraction, beneficiation and processing of minerals. Overburden and low grade ore are generated in extraction and are components of waste pool. Tailings generated during beneficiation and processing are toxic and in summers these become air-borne. In monsoons, tailings are carried on to tank beds. Tailings are a bigger problem if they are of radioactive waste. Mining of some minerals like marble also generates specific wastes like marble slurry which if dumped on land, adversely affects the productivity of land.

Dust emissions from mines, waste dumps and mineral transportation generates a lot of fugitive dust. Fugitive dust is generated in open cast mining from drilling, blasting, hauling, loading and unloading. Mining dust is known to cause problems like silicosis, asbestosis, cataract, pneumoconiosis. In underground mining, methane emissions are a problem which contribute to global warming.

Deaths and accidents occur during mining because of fire, blasting, drilling, flooding and land subsidence. In underground mining, carbon monoxide (CO) poisoning is also a reason for a number of deaths of workers. Large quantities of CO block the haemoglobin in blood and the ability to carry oxygen from lungs to muscles and other tissues in the body. Mine workers are also prone to hearing impairment, skin and eye diseases, metal and radiation poisoning, silicosis, pneumoconiosis, asbestosis, etc. Silicosis is caused by inhalation of silica dust and is associated with mining of sandstone, stone quarrying, granite and grinding of metals. Continuous and long term exposure to silica results in lung cancer. Asbestosis happens due to inhalation of asbestos released during asbestos mining. Coal worker's pneumoconiosis (CWP) is caused due to inhalation of coal dust from coal mines.

Evidently, mining activity affects the environment and the associated people in many ways. It thus becomes important to regulate the industry and make sure the affected people can derive some benefit out of the operations.

The major mining districts of the country are not only ecologically devastated and polluted, they are also the poorest and the most backward districts of the country. Consider the following examples:

- **Keonjhar (Odisha)**, where mining for iron ore and manganese started in the 1950s and which currently produces more than one-fifth of India's iron ore, is ecologically devastated. Its forests have turned into wasteland and its rivers and air have been extensively polluted. Even worse, mining has done nothing for Keonjhar's economic well being. Keonjhar has more than 60 per cent of its population below poverty line and is ranked 24<sup>th</sup> out of the 30 districts of Odisha in the Human Development Index (HDI).
- **Bellary (Karnataka)** produces about 19 per cent of India's iron ore (most of which is exported). It boasts of the maximum number of private aircrafts in the country, but majority of its population remains impoverished. Agricultural land has been devastated due to mining and dust levels in the air are leading to large-scale health problems. Bellary is ranked third from bottom in HDI in Karnataka.
- **Gulbarga (Karnataka)** is the biggest limestone producing district of India. It is ranked second from bottom in HDI in Karnataka.
- **Koraput (Odisha)** alone produces about 40 per cent of India's bauxite. Close to 78 per cent of its population lives below poverty line, and the district ranks 27<sup>th</sup> in Odisha in HDI.
- **Jajpur (Odisha)** produces 95 per cent of India's chromite (most of which is exported) – the people of Jajpur have got hexavalent chromium pollution in return. Jajpur is ranked 22<sup>nd</sup> in Odisha in HDI.
- **Bhilwara (Rajasthan)** produces more than 80 per cent of India's zinc. It is ranked 25<sup>th</sup> out of the 32 districts of Rajasthan in HDI.
- **Cuddalore (Tamil Nadu)** produces three-fourth of India's lignite. Groundwater near the lignite mines has been depleted, leaving local agriculturists high and dry. More than half of Cuddalore's population lives below the poverty line and it is ranked 16<sup>th</sup> out of the 30 districts of Tamil Nadu in HDI.
- **Sonebhadra** is the most mined district of **Uttar Pradesh**. It produces more than 20 million tonne of coal every year, apart from thousands of tonnes of limestone and dolomite. It is also one of the most backward districts of the state. About 55 per cent of its population lives below the poverty line and its literacy rate is less than 50 per cent.
- **Udaipur** has the maximum area under mining in **Rajasthan**; it is ranked 27<sup>th</sup> out of the 29 districts of the state in HDI.

The phenomenon of 'resource curse' puts most of the major mining districts in India in the list of 150 most backward districts in the country. Although royalties are put in place for the extractive industry, this does not ensure financial flows to the affected communities. In addition to all this, these mineral rich areas suffer another problem – naxalism.

## CHAPTER 3

# Displacement, Resettlement and Rehabilitation

The most common problem associated with mining activity is that of involuntary displacement. It is forced upon people for acquiring their mineral rich land and in the name of rehabilitation people end up being worse off than before. Other risks associated with involuntary displacement are livelihood losses, employment problems and socio-cultural loss. Although there are no reliable estimates available for the number of people displaced, mining is estimated to have displaced close to two million people between 1950-91<sup>53</sup>. Not even one fourth of these displaced people have been resettled<sup>54</sup>. The number is a gross under estimation as it only includes the number of people moved out of their lands, not the ones that depended on the land for their livelihoods or those whose lands were destroyed due to waste dumping, etc. Tribal population is affected by mining the most especially since they have hardly any legal right of their lands. More than 40 per cent of all the displaced people have been tribals while in the case of mining, more than 50 per cent of the displaced belonged to the tribal population<sup>55</sup>. Displacement raises the issue of equity and social injustice as a segment of the population enjoys the benefits from/of these developmental activities while others suffer.

The mechanisms that have been used for compensating the displaced people are cash compensation, land for land, employment and self-employment. Cash compensation doesn't include people who don't own the land but lose their livelihoods. Inadequate compensations, delays in compensation and one time payments have meant that cash payments have not been converted into durable livelihood assets. Land for land involves replacing lost land with new at some other location. It is not a common norm in India because of scarcity of land. In most of the cases where it is tried, the new land is of inferior quality or not suitably located or of small size. Employment as a compensation option has always been very attractive to the displaced communities. Companies' specially public sector ones were opting for this form of compensation by providing employment to at least one member of every displaced family. But the trend is now changing and companies are shying away because mining is becoming less and less labour intensive and also most of the displaced people are unskilled labour. Self-employment in India is not seen as dependable source of livelihood and hence not a preferred compensation option. Overall, most rehabilitation exercise in India has failed because of poor understanding of rehabilitation challenges.

Development induced involuntary displacement and resettlement usually ends up making the population worse off<sup>56</sup>. Key cause of failure of resettlement is financial - flawed compensation and under-financing<sup>57</sup>. The reason for under financing can be attributed to wrong estimation of resettlement costs. The distinction between compensation cost for lost assets and cost for resettlement components has either been flawed or has not been taken into account while designing for resettlement<sup>58</sup>. Thus, the finances earmarked for resettlement often fall short of what is needed.

A World Bank study carried out in 1994, brought out an important relationship between resettlement financing and implementation performance. The study looked at 31 projects across 15 countries. It was based on an economic indicator – the ratio between resettlement budgets to per capita GDP for every project. The study showed that projects with this ratio above 3.5, seldom faced any resettlement difficulties while those with ratio less than 2, face major implementation issues<sup>59</sup>. At the top of the list were 10 projects with resettlement resource allocation ratio between 4-10.5<sup>60</sup>. At the bottom, were 10 projects with ratio between 0.5-2 and six of these projects were in India<sup>61</sup>. The bottom projects were also on the World Bank's list of projects with implementation problems.

In India, there are no accurate numbers on how many people have been displaced involuntarily from all developmental activities. Some estimates peg it at about 20 million people during four decades<sup>62</sup>. What is even more surprising is that only one fourth of those displaced have been resettled and the rest have lost their livelihoods and become impoverished<sup>63</sup>. In order to avoid or reduce such impoverishment, it is important to have procedures that allow equity in bearing the burden of development and also to ensure distribution of benefits to all.

This can be done through benefit/profit sharing. Benefit or profit sharing can act as one of the risk insurance measures, especially in case of mining which causes large displacement. Increasing financing for growth-oriented resettlement would benefit resettlers and overall project outcomes as well for it will prevent losses to project that occur because of delays.

## CHAPTER 4

# Natural Resource Rent and Benefit Sharing

**E**conomic rent or resource rent is defined as 'surplus return over and above the value of invested capital, materials, labour costs and other factors of production employed to exploit natural resources'. Development projects require land, water, natural resources and they may cause displacement. The extractive industry (mining) gains access to mineral rich lands and harvests the opportunity of earning substantial economic rent. This rent is looked at as a 'windfall' that the project developers (miners) gain by exploiting natural resources (minerals). This is what we refer to as 'abnormal' or 'supernormal' profits.

Resource rent can be differential or scarcity rent. If there is a difference in quality of a resource at different places, this results in difference in the rent that accrues to them. For example, coal of a higher grade mined in state A will accrue more rent than a lower grade coal mined in state B. Scarcity rent is rent accrued due to shortage in supply as opposed to demand of that resource. To illustrate, uranium extraction will accrue more rent in India, owing to the country's plan to up scale electricity generation using nuclear power, due to relative shortage of uranium in the country.

The objective to collect resource rent is to ensure a return to the owner of the resource and to avoid inefficient allocation. Ownership of a resource entitles the owner to derive benefit from the use of resource and the right to earn a return on the resource. Thus the owner of the natural resource is the owner of this rent. **So its not unfair to say that population that is displaced from mineral-rich lands and those who loose their livelihoods as a result should be the true owners of this economic rent in addition to the resettlement and rehabilitation packages.** In order to maximise profit, resources should be allocated to those uses/users that will create the maximum value implying efficient allocation.

In addition to ensuring return to resource owner and avoiding inefficient allocation, ethical considerations are also at play that press towards collecting a resource rent. One argument is to enhance welfare of future generations in the absence of resources that are being used today. Thus it is ethically correct to collect a rent from the use of these resources today to, in a way, compensate future generations for not having these available to them. The Norway Petroleum Fund is a case in point. There are also other ethical considerations like equity, fair and efficient allocations.

In Brazil, the economic rent concept is applied to hydropower projects. It is a legal obligation for electric utilities in the country to pay compensation for exploiting hydro resources (water). This law, applicable to plants more than 10 MW, then distributes the collected royalty among the state, municipalities and federal government<sup>64</sup>. Similarly, in India a hydropower project has to give 12 per cent of its electricity generated to the state government as a 'rent' to use the water in the state although it is not named so. In Russia, economic rent concept is applicable on oil companies. The logic behind the concept is that companies do not own the oil that makes them rich, only the right to extract it from ground and that the profits earned by selling this oil are so large that they can afford to share the wealth. In Papua New

Guinea, mining companies are charged resource rents in the form of direct payments to land holders and royalty payments to different governments under this rent.

Some or the other benefit of any natural resource exploiting project definitely accrue to the general public at large. It is important to point out that people who loose their ownership over this resource is not a part of general public in the sense that they loose more than the others. Thus it is fair for them to get some additional profit/rent out of this exploitation.

## Mechanisms for Extracting Resource Rent

In most countries government is the owner of minerals. Different countries have used different mechanisms to extract resource rent. Resource rent is best based on a negotiation process between the resource owner and the resource user. This can either result in a fixed amount or a combination of fixed amount, royalties, auction, taxes, etc<sup>65</sup>. Which mechanism is to be used depends on individual circumstances. Several options are available to extract rent from natural resources. Some common ones are summarised below<sup>66</sup>:

- **State owned production** – State owned companies are engaged to exploit natural resource in the country. It may alternatively engage a private company to exploit the resource for a share in production. Joint ventures with state equity are another option. This kind of a set up may require the state to finance some operations. The problem with this kind of arrangement is that the state will have to monitor itself for environmental and social compliance, presenting a conflict of interest.
- **Fees and auctions** – The government may charge a fee for accessing the resource. This maybe a fixed amount, negotiated or maybe based on auctioning the rights of access. The latter ensure maximum rent accrual from the resource for the government. An arrangement involving long term payment pattern is preferred over a one time large transfer. This avoids political manipulation of funds.
- **Tax and royalty** – The government may charge a sum to the company accessing the resource on the basis of the resource being used/withdrawn/extracted. This tax, called royalty, maybe linked to the sale price (*ad valorem*), per unit production, profit taxes or export taxes. The extractive industry may also be charged income tax like other businesses. The practice maybe company or project based (ring fencing). **A resource rent tax (RRT) may also be levied. RRT is a tax that is levied on profits above a certain level from the exploitation of minerals (see Box: Resource rent tax)**. Liability and environmental taxes can also be imposed. These are levied to compensate for the externalities of environmental damage that may accompany these projects.

How resource rent is to be used? Some common allocations options are<sup>67</sup>:

- One option is to **finance the ongoing government expenditures**. This is beneficial for the present population. However, if these expenditures are made in infrastructure, educational or medical facilities, etc., they benefit future generations too. This increases the importance of good governance in the process of using resource rents. The government should have the capacity to utilise revenue properly. A sound institutional arrangement is the key.
- The revenues maybe used for **financing specific priority expenditures** like education. Although this puts in a restriction to change allocation with changing circumstances, it ensures funding of priority needs. Also, it keeps a check on indiscriminate spending by the government.
- Can be used for diversification of the economy.
- Creation of **trust funds** ensure saving of resource rents for future use. These could be stabilisation funds or savings funds. A stabilisation fund for government expenditures overcomes volatility of resource revenues. Savings funds on the other hand accumulate revenues over time. These cater more to future needs than present ones.

## RESOURCE RENT TAX

Royalty is a form of economic rent from natural resources but it does not take into account 'windfall' from mining operations. Also, royalty is a share of the government and not the project affected communities/people. Therefore, a charge/tax is needed to capture this 'windfall' from mining operations for the affected communities. Resource rent tax (RRT) is one such tool.

RRT is the tax that is levied on profits over a theoretical level defined as an adequate return from a resource project and is considered as the return to the owner<sup>1</sup>. It was first introduced in 1986 to apply to new offshore oil projects in Australia<sup>2</sup>. The tax is assessed on project basis or on licence area basis. The threshold level of return on a project at which the tax started to apply is set at 15 per cent above the long-term commonwealth bond rate<sup>3</sup>. It is levied at the rate of 40 per cent on the taxable profits of a project. The taxable profit is calculated as receipts over and above those that meet - deductible expenditure and exploration expenditure for the company, annually.

The premise of this tax was that the resources are owned by the state which should benefit all the citizens and not certain individuals only that exploit these resources. Australia now plans to employ the same RRT structure to the minerals sector in the country. Mineral RRT (MRRT) is now proposed which will be a tax on the profit generated from mining of iron ore and coal which will become applicable from July 2012. The super profits on which taxes will be applicable are calculated on the basis of assessable receipts minus deductible expenditures just like the petroleum levy.

The tax will be levied at a rate of 30 per cent but the effective tax rate is 22.5 per cent after taking into account the 'extraction factor'<sup>4</sup>. For projects that are already in operation, this tax will become applicable as explained. For projects which have applied but not yet started operations, a special base allowance will be granted to reduce their MRRT liability<sup>5</sup>. It will be applicable on companies with assessable profits more than USD50 million per annum<sup>6</sup>. Estimates suggest if this tax would have been applicable to mining companies in Australia in the last three years then it would have raised an extra USD14 billion<sup>7</sup>.

- **Resource rents may also be directly distributed to pre-defined stakeholders.** This may be a fixed amount or may be based on a negotiating process. This ensures direct benefits for citizens and eliminates undesired government use of revenues. Direct cash transfers tend to improve lifestyles immediately and a hedge against impoverishment risk. However, this needs to be accompanied with livelihood generating opportunity. Most of the affected stakeholders have little or no ability to properly utilise these cash transfers and mostly end up using these to buy material assets. There are also very few investment opportunities present in these areas making intelligent use of cash transfers even more difficult.

## Benefit Sharing with Affected Communities

Various projects exploiting natural resources need to contribute to the development and welfare of the affected communities in addition to resettlement and rehabilitation. One way to achieve this is to share benefits from the project with these affected communities using monetary or non-monetary options. The latter includes most of the Corporate Social Responsibility (CSR) components like educational/medical facilities set up by the company, employment generated by the project, access to better services, facilities like road, etc (see Box: *Corporate Social Responsibility*). Monetary benefit sharing mechanisms are based on the premise that natural resource exploitation generates significant economic rent as explained above. Some of this economic rent can be shared with the project affected population. Monetary mechanisms also act as a relationship bridge between the project proponent and the concerned communities. The various kinds of monetary benefit sharing mechanisms that can be used are:

- Revenue/profit sharing
- Development funds
- Equity sharing
- Tax sharing with government

## CORPORATE SOCIAL RESPONSIBILITY

Businesses apply social responsibility when they consider the needs and interests of people who will be affected by their business actions<sup>1</sup>. This makes them look beyond their narrow economic interest. The larger the company, the greater this social responsibility becomes.

Currently, Corporate Social Responsibility (CSR) practices in India are dictated by guidelines notified by the Ministry of Corporate Affairs issued in December 2009. The fundamental principle of the guidelines is that businesses should formulate their own CSR policy, approved by the company's board<sup>2</sup>. Under this policy, businesses should allocate specific amounts in their budgets for CSR activities. This amount may be related to profit after tax, cost of planned CSR activities or any other suitable parameter<sup>3</sup>. The guidelines also encourage transparent reporting about CSR budgets, activities, etc., undertaken by businesses. These guidelines are however voluntary which dilutes the intended impact. In India, there is no clear definition of what all activities are a part of CSR. Companies may choose to donate money to their own foundations or donate two per cent of their turnover to a non-profit organisation.

The Corporate Affairs Ministry is planning to make CSR mandatory as part of the amendments to the Companies Bill, 1956<sup>4</sup> by stating that every company is required to spend at least two per cent of the company's average net profit during the three immediately-preceding financial years, on the chosen CSR activities by the company<sup>5</sup>. The country has plans with respect to coal mining as well where CSR spending will be made mandatory<sup>6</sup>. The amount will be linked to the net profit of the companies and will be spent on the welfare of the affected people<sup>7</sup>. There are suggestions for at least five per cent of net profits to be earmarked for community welfare or creation of a separate Mineral Development Fund for the purpose<sup>8</sup>. The industry's opposition is that such mandatory CSR spending may reflect itself in increased consumer prices and the consumers may not be willing to pay for the increased costs.

Although some states have tried to develop and implement mechanisms in the past to ensure that benefit flows to the affected communities, these efforts have not produced the desired results. The Odisha state government, for instance, had announced a Peripheral Development Fund from mining. To be set up under the guidance of the Odisha Mining Corporation (OMC), the state government issued an official directive to collect funds for peripheral development from the mining companies. The OMC was also to deposit a certain per cent of its profit into this fund every year. The mining companies were also to give five per cent of the total profit per annum for the peripheral development<sup>9</sup>. The fund was to be used for the welfare of the affected communities like providing drinking water, health services and development of education, infrastructure and plantation for rural poor. But the directive of the state government was challenged in the Odisha high court and the fund did not materialise. The high court rejected the state government's policy, in 2008, on the ground that no legislation was formulated in this regard<sup>10</sup>. Till then the state government had collected only ₹52 crore as part of the fund<sup>11</sup>. This calls for establishing better mechanisms of benefit sharing backed by legislations.

The capacity of the project proponent to share benefits from the project depends on the kind of resource rent generated. Presently, profits in the Indian mining sector are huge. A simple analysis from the annual reports of the top stand-alone mining companies show that they have been reaping windfall profits. In 2009-2010, the average profit after tax (PAT) of mining companies was 33 per cent of the gross sales (see *Table 1.5: PAT analysis of standalone mining companies in India*). In the case of CIL, this ratio of PAT to gross sales stood at 18 per cent. The ratio was highest for NMDC at 55 per cent and the lowest for RSMML at 12 per cent. Clearly there is ample scope for India mining companies to spare part of their revenue/profit for affected communities.

**Table 1.5: PAT analysis of standalone mining companies in India**

Company	Gross sales (₹crore)		PAT (₹crore)		PAT/Gross sales (%)	
	2008-09	2009-10	2008-09	2009-10	2008-09	2009-10
CIL	46131	52188	2078.69	9623	4.51	18.44
GMDC	981	1066	236	280	24.06	26.27
MOIL	1285	966	664	466	51.67	48.24
NMDC	7559	6230	4372	3447	57.84	55.33
RSMM	944	914	121	112	12.82	12.25
SGL	4586	6654	1943	2639	42.37	39.66

**Source:** CSE analysis based on annual reports of companies.

A similar analysis of companies with captive mines also brings out that for these companies, the PAT to gross sales ratio is 24 per cent on an average (see *Table 1.6: PAT analysis for multi-operational mining companies*). The highest ratio was recorded for HZL at 44 per cent for the year 2009-10 while the lowest was recorded for HCL, 11 per cent.

**Table 1.6: PAT analysis for companies with captive mines**

Company	Gross sales (₹crore)		PAT (₹crore)		PAT/Gross sales (%)	
	2008-09	2009-10	2008-09	2009-10	2008-09	2009-10
HCL	1349	1430	-10	155	-0.74	10.84
HZL	8737	6142	4396	2728	50.31	44.42
NALCO	5518	5311	1272	814	23.05	15.33

**Source:** CSE analysis based on annual reports of companies.

# Global Practices: Benefit sharing with communities

## Papua New Guinea

Mining has long been practiced in Papua New Guinea (PNG) by the indigenous people who mined stone and ochre. Gold was discovered in PNG in 1852 but commercial gold mining started only around 1888 and that for copper in early 1900s<sup>68</sup>. At present, PNG is the 5<sup>th</sup> largest gold producer<sup>69</sup> and the 13<sup>th</sup> largest copper producer<sup>70</sup> in the world.

Copper production in the country has witnessed an increasing trend over the past few years with an occasional dip (see *Table 1.7: Production and value of minerals in PNG*). It went down by 10 per cent from 2008 in 2009. Gold production in PNG exhibited a mixed trend and registered a growth of about eight per cent in 2009 from that in 2008.

Gold accounted for 58 per cent of the total value of mineral production<sup>71</sup> in the country while copper accounted for 42 per cent (see *Graph 1.5: Value of mineral production in PNG*). Mining provides employment to about five per cent of the workforce in the country<sup>72</sup>. The sector's contribution to GDP has been 25 per cent on an average<sup>73</sup> according to the National Statistical Office of PNG<sup>74</sup>. In 2007, the contribution of the mining sector to GDP stood at 29 per cent which declined to 27 per cent in 2008<sup>75</sup>.

A number of fiscal provisions are in place for the mining sector in PNG. Just like other business, mining is also taxable and all general taxation rules apply to the sector. Corporate tax rate of 30 per cent is applicable to resident mining companies while that of 40 per cent is applicable to non-resident ones<sup>76</sup>. A mine lease holder has to pay a royalty at the rate of two per cent of the sale of minerals. At least 20 per cent of the royalty is to be distributed between the landowners of the project area. The rest of the royalty is spent in the area and province where the mine is located. This sum is to be spent as a part of the Community Sustainable Development Plan.

**Table 1.7: Production of minerals in PNG**

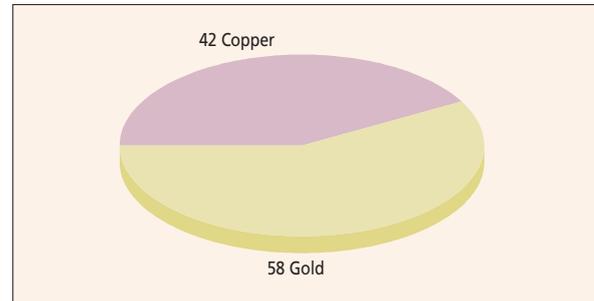
Year	Mineral	2004	2005	2006	2007	2008	2009
Production (in thousand tonnes)	Copper	174	226	217	199	186	167
	Gold	67	71	57	58	63	68

**Source:** 1. TJ Brown et al, 2011, *World Mineral Production 2005-09*, British Geological Survey 2011, Nottingham, pg. 14 & 29.

2. Anon, 2010, *Papua New Guinea: Selected Issues Paper and Statistical Appendix*, International Monetary Fund, Washington DC, pg. 2.

The various kinds of mineral concessions that can be granted in PNG are: Exploration licence (EL), mining lease (ML), special mining lease (SML) and alluvial mining lease (AML). An SML is usually granted for large scale mining while an AML is granted for small scale mining by citizens. At present<sup>77</sup>, there are about 230 mineral concessions operational at different stages in PNG which are held by 79 different companies<sup>78</sup>. By April 2009, 271 ELs had been granted out of which seven were under moratorium<sup>79</sup>, 26 ELs were under renewal<sup>80</sup> and 102 new applications for EL had been received<sup>81</sup>.

**Graph 1.5: Value of mineral production in PNG**



Source: TJ Brown et al, 2011, World Mineral Production 2005-09, British Geological Survey 2011, Nottingham, pg. 14 & 29.

There are eight operational mines, four potential operations mines and 10 mines under advanced exploration in PNG while a number of projects are proposed to come up<sup>82</sup>.

## PNG Mining Law

The country's Department of Mining regulates and promotes the mining industry in PNG. The main act governing mining in the country is the **Mining Act 1992**.

Section 3 of the Act makes provisions for consultation with the project affected people and the provincial government before grant of an SML. The section mandates the formation of a 'development forum' to be convened by the Minister for consultation with affected people. The members of the forum will be chosen by the Minister in a way that they fairly present views of all stakeholders – applicant, landholders of land in application, national government and provincial government. Similarly, before granting a ML, the Minister shall consult the provincial government under the Act. The provision thus provides a platform to various stakeholders to come together to discuss the impact of the project and compensations and benefit sharing mechanisms. Although a very important provision, it grants all the power to the Minister in deciding who are the affected people which lends a subjective approach to the process. This dilutes the consultation provision.

The Act also authorises the state to enter into a Mining Development Contract (MDC) with a mining company/individual subject to certain conditions as per Section 18. When the Minister/Director deems it important for an MDC, he may make it mandatory that the mining then takes place under an SML. Section 107 gives rights to an affected person to lodge a complaint against grant or extension of a mineral concession. The procedure for the same, Warden's hearing, is laid down in Section 108. The Warden is to hear views of all project affected people and submit a report to the MAB within two weeks of the hearing. The Board shall consider the report of the Warden and make recommendations accordingly. Section 110 of the Act also gives the Board the right to hear any other objections against grant or extension of mineral concessions that may arise.

Section 154 makes provisions for compensation to be paid to landholders for whose land the EL/ML has been granted for. The compensation is to be determined in line with values published by the Valuer-General. The section lays down conditions for which the compensation can be made. These include – loss of or damage to part or whole of the land, restriction to use the land, social disruption, impact on agriculture, etc. The section also makes provision for compensation to landholders of any adjacent land which has been injured/depreciated as a result of the exploration/mining activity. Section 155 bars entry of mineral concessions' holders on the land till such compensation is paid to the landholders. Section 156 defines 'compensation agreements' vide which such compensations are to be settled. This agreement needs to go through the scrutiny of the Warden before it is sent to the Registrar for registration. Section 157 confers power to decide compensation on the Warden incase they are unable to reach a mutually

agreeable compensation amount. This is to be done by holding a meeting where the concession holder and any such claimants will be present and such compensation will be binding to both the parties. However, if either of the party does not agree with the Warden's estimation of the compensation, Section 158 allows them to approach the National Court to appeal against it.

The Act also makes provision for 20 per cent of the royalty payments from mining companies to be payable to the landowners of the mine lease area<sup>83</sup>. This was reduced from 51 per cent to 20 per cent in 1992.

## Mechanisms for Benefit Sharing

The main mechanisms in place in PNG for managing and sharing benefits are: Mineral resource stabilisation fund (MRSF) and development forums. Set up in 1974, the MRSF was to avoid extremely variable public expenditure owing to unstable mineral revenues connected to world commodity prices<sup>84</sup>. MRSF was phased out after 1999 owing to its lack of keeping public expenditure in place and the enhanced public debt situation.

Development forums have become a part of the legislation in PNG. The central and the provincial governments, local landowners and the companies participate in these forums with a view:

- To discuss the impact, nature and scope of the proposed project
- To agree on benefit sharing mechanisms.

Benefit sharing can be infrastructure development, royalty payments, shares in project, etc. These forums serve as a platform for various stakeholders to come together and agree on mutually acceptable arrangement for sharing benefits from mining projects.

## Case Studies

- **Ok Tedi Mine:** The open cast Ok Tedi mine has been in operation since 1984 while the copper processing started in 1987<sup>85</sup>. It is the largest mine of PNG and produced 159,700 tonnes of copper and 515,400 ounces of gold in 2008<sup>86</sup>. Located on Mount Fubilan, the mine is operated by Ok Tedi Mining Limited (OTML) which is majority owned by the PNG Sustainable Development Programme Limited (PSDPL). Prior to 2002, the mine was majority owned by BHP Billiton when the company divested its shares.

When the mine started production, royalties payable were set at 1.25 per cent<sup>87</sup>. These were to be divided between the provincial government (95 per cent) and the landowners (5 per cent)<sup>88</sup>. In 1991, landowners took up 2.5 per cent equity in the company<sup>89</sup>. In 1996, the royalty share was increased to two per cent out of which provincial government received 70 per cent and 30 per cent went to the landowners<sup>90</sup>. In 1997, an equity of 10 per cent was also granted to people of Western province<sup>91</sup>.

After BHP's exit, the shareholding pattern for the mine comprises the PNG Sustainable Development Program Limited (PNGSDP) (52 per cent), Papua New Guinean government (15 per cent), landowners (2.5 per cent), Fly River provincial government (2.5 per cent), people of Western province (10 per cent) and Inmet mining Corporation, Canada (18 per cent)<sup>92</sup>. The landowners share the royalty paid by the company with the provincial government. The landowners also have received a number of compensation fees like occupational fee, social disruption fee, relocation fee, a fee for deprivation of possession or use of land, etc. OTML gives preference to the local population in the mine lease area for business contracts. PNGSDP, is a non-profit company that receives compensation on behalf of the affected community<sup>93</sup>. The PNGSDP, formed through an agreement between the state of PNG and BHP, focuses on a number of areas like community investment, environment and conservation,

investment in renewables, electrification, infrastructure and minimising impact of mine closure among other things.

There are six landowner compensation and benefit schemes in place with eight operational trusts<sup>94</sup>. Since 1982, the mine has provided benefits to the local area of about 294 million USD<sup>95</sup>. In 2003-04, the company paid about 44.5 per cent of its pre tax revenues as compensations (see *Graph 1.6: Ok Tedi mine compensations*). Income tax paid to the government accounted for 50 per cent of this compensation while mining levy accounted for 15 per cent. Royalty constituted about 11 per cent of compensation from Ok Tedi mines. Owing to its environmental impact due to disposal of tailings in the Ok Tedi river, the company had to pay compensation to the 152 affected communities as well<sup>96</sup>.

**Graph 1.6: Ok Tedi mine compensations**



Source: Carolyn Fischer, 2007, *International Experience with Benefit-Sharing Instruments for Extractive Resources*, Resources For the Future, Washington DC, Pg. 40.

- **Lihir gold mine:** Discovered in 1982, the Lihir gold deposits have been explored since 1983. There are three open cast mines under the project with about 29 million ounces of reserves and 43 million ounces of indicated resources<sup>97</sup>. Newcrest Mining Limited became the owner of Lihir mines in September 2010. The annual gold production stands at 7,00,000 ounces<sup>98</sup>. The negotiations with communities included<sup>99</sup>:
  - 20 per cent royalty payments to landowners and 30 per cent to Nimamar local government
  - Relocation of about 250 households
  - One village to have a trust fund with 1,26,000 USD and trust funds for other villages
  - 1,34,400 USD per year for development projects
  - Seven per cent shares of the company
  - Two villages to receive 21,000 USD annually and 840 USD per family per year and 14,700 USD of community projects per year.

A Lihir Sustainable Development Plan Trust (LSDPT) has been formed to deliver the benefit package as agreed between the Lihir gold mine (operated by Rio Tinto) and the landowners. The package works through the landowners having bought shares in the Lihir Gold Ltd. (LGL) through the PNG government support. It is this equity fund that forms the core of the LSDPT. The Trust operates in different areas – compensation, capacity building, infrastructure development, town and village planning, trust fund payments, etc. The LSDPT also receives part of the funds from the royalties received by the landowners and provincial and local governments.

- **Porgera gold mine:** The Porgera gold mine is operated by Porgera Joint Venture (PJV). Barrick Gold is the majority shareholder in PJV and the current operator of the mine. In operation since 1989, the mine utilises both underground and open cast operations. The mine's estimated reserves are of the order of 7.4 million ounces of gold and its production in 2010 stood at 519,000 ounces<sup>100</sup>.

The Enga provincial government and the national government were part of the development forum that negotiated benefits<sup>101</sup>. Till mid-1995, the provincial government took 77 per cent of the royalties, the Porgera Development Authority (PDA) took five per cent, children's trust 10 per cent and eight per cent to SML landowners<sup>102</sup>. After 1995, the arrangement changed with provincial government's share reduced to 50 per cent, SML landowners' share increased to 15 per cent, other landowners received 12

per cent and an NGO (Young Adults) received eight per cent while the share of PDA and children's trust remained unchanged at five and 10 per cent respectively<sup>103</sup>. The project also gave birth to the tax credit scheme in the country under which each mining company was to spend 0.75 per cent of their taxable income on infrastructure projects in the impact areas<sup>104</sup>. With 11 per cent contribution to the country's GDP, the mine has paid USD 525 million in taxes and royalties since 1984<sup>105</sup>.

- **Misima gold-silver mine:** Owned by Misima Mines, the mine started production in 1990 and ended in 2001<sup>106</sup>. The provincial government received 70 per cent of the royalties and landowners 30 per cent<sup>107</sup>. Out of the landowners' share, two thirds went to a future generations trust fund and 10 per cent was divided between SML landowners and other landowners<sup>108</sup>.
- **Tolukuma gold mine:** Started production in 1997, also divided royalties between the provincial government and the landowners at 20 per cent and 80 per cent respectively<sup>109</sup>. The landowners' share is further split among the three clans (16 per cent each), landowners association (eight per cent) and a future generations trust fund (24 per cent)<sup>110</sup>. The PNG government extends one per cent to the district where the project is located.

Thus, in PNG, the development forum decides benefit sharing mechanism that varies from mine to mine.

## Canada

Canada's mining industry is huge with USD32 billion as contribution to GDP in 2009<sup>111</sup>. Over the past two decades, the contribution of minerals to the country's economy has been maintained at 3.5 to 4.5 per cent. Mining is an important revenue source for the government and industry payment as taxes and royalties stood at USD5.5 billion in 2009<sup>112</sup>. The main minerals are potash, uranium, gold, nickel, copper, zinc, lead, iron ore and diamond. The estimated value of minerals stands at USD45.3 billion<sup>113</sup>.

### Land Ownership

In Canada, 90 per cent of mineral rights are owned by government and cannot be purchased but only leased by companies or individuals<sup>114</sup>. When mineral rights are privately owned they can be sold independently of surface rights. In case of mining activities affecting aboriginals, some specific rights are provided to the people to safeguard their interest. Section 35 of the Indian Constitution Act, 1982 recognises aboriginal and treaty rights<sup>115</sup>.

According to the act, there are three types of aborigines in Canada - First Nation, Inuits and Metis. First Nation is the largest aboriginal group comprising more than 600,000 people. Metis is a group that represents a mixed group of aboriginals of British ancestry. Inuits are the people who live in Nunavut, Northwest territories, Yukon and northern parts of Labrador and Quebec<sup>116</sup>. Aboriginal rights include the right to an ancestral territory, self-government, customary law, right to conclude treaties and right to honorable treatment by the Crown (government)<sup>117</sup>.

Aboriginal title is a right which concerns occupational right on land and right of ownership of resources prevailing beneath the land. It is a right held by a community and decisions with respect to land are taken by the community. The right to land can only be transferred to the Crown. This land ownership even though implies ownership of resources, developing these resources is not allowed<sup>118</sup>. Since the title gives the authority to the community to take decision as to what to do with their land so it necessitates the participation of aboriginal groups in the development of resources.

There are some modern treaties which are called *land claim agreements* (LCA) which establish defined area of land for aboriginals and cover issues of mineral rights. These agreements also give specific rights

to aboriginals. For example, the Nunavut LCA which grant Inuits the title to about 3.5 million ha of land and mineral rights to approximately 0.35 million ha. Also, where Inuits own the surface and subsurface rights, there it helps them in controlling how mining will proceed. Usually in such circumstances, mineral leases are given to third party to develop those resources in exchange of signing an *Impact Benefit Agreement* (IBA). Even if both surface and subsurface right belongs to the government then also some rights like consultation are provided to aboriginals<sup>119</sup>.

## Mining Regulations

Canada has ten provinces – Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland, Labrador, Nova Scotia, Ontario, Prince Edward Island, Quebec and Saskatchewan and three territories – Northwest, Nunavut, and Yukon. These three territories are governed by federal government and the in the provinces provincial government has jurisdiction to regulate natural resource exploitation according to their own regulatory system.

In British Columbia, the government has committed to shared decision making with First Nation. Revenue sharing from mining is considered on a case by case basis<sup>120</sup>. In Nunavut, an Inuit impact benefit agreement (IIBA) is required before commencement of any major development project. In Yukon, consent is an important requirement before approving any project. For First Nations that have LCAs, revenue sharing requirements are built into the treaties. In Labrador also there is a requirement of an IIBA for development projects with investments of more than USD40 million<sup>121</sup>. The Nunatsiavut government receives 25 per cent of all provincial mining tax revenues from subsurface resources in Labrador Inuit Lands<sup>122</sup>. In settlement areas outside the Labrador Inuit Lands and the Voisey's Bay area, government receives 50 per cent of the first USD2 million annually and five per cent of any additional provincial revenues from subsurface resource developments<sup>123</sup>. In Quebec, agreements provide for the sharing of revenues and joint management of mining. In Saskatchewan, nine First Nations signed a self- government agreement with Canada which provides for extensive consultation with northern communities and hiring priority for area residents with respect to development projects<sup>124</sup>.

Ontario mineral industry cluster council recommended establishment of First Nation Royalty Fund for managing and distributing revenue. USD50 million contribution as a base to the Trust fund would come annually from existing mining tax streams and a contribution of one per cent of gross revenue from all new mines and expansions to the Fund over and above the USD50 million base<sup>125</sup>. The funds will be managed for sustainable economic and social development by communities and the term of fund is 10 years.

## Mechanisms for Benefit Sharing

IBAs are legally-binding private contracts which are voluntarily initiated by resource developers. They are used by aboriginals to influence decision making in their lands and address concerns about mining impact on their environment, land, and their traditional way of life<sup>126</sup>.

There are two type of agreements: One is legislative and the other is commercial. Legislative agreements are the ones that are entered into by particular aboriginals and federal government of Canada. Commercial ones take place between mining companies and the aboriginals<sup>127</sup>.

IBAs are negotiable and are categorised as socio-economic agreements. These can include direct or indirect payments. Direct payments encompass profit sharing arrangements like cash or compensation funds. Indirect benefits may include employment, business opportunities and finance or equity provisions. As far as financial provisions are concerned, sometimes a fixed annual payment and subsequent payments based on value of minerals is made while sometimes royalty sharing,

sharing of taxes is also a part. Provisions for contribution of some minimum amount as a base to the trust and some specific percentage contribution from gross revenue from development of new mines is another option. Agreements also makes sure that business opportunities go to the affected sections by encouraging joint ventures between aboriginals and non-aboriginals. These agreements are thought to benefit those communities more who have some form of authority over traditional lands.

## Case Studies

- **Nunavut LCA:** The Nunavut LCA came into effect in 1993. An institution for resolving conflict and for regulating implementation of IBA is established under this agreement. Nunavut LCA provides provisions for royalty distribution. The federal government is to pay the Inuits 50 per cent of the first USD2 million and five per cent thereafter of royalties received from production of minerals on crown land. Mineral developers have to pay 12.5 per cent of net proceeds of production with minimum annual royalty of USD50,000<sup>128</sup>.
- **Mackenzie Gas Project in the Northwest:** In the project the pipeline for transporting natural gas was laid on the lands of aboriginals. Some aboriginals held one third of the equity of the pipeline. The fee for building the pipeline was negotiated across the traditional land. As per the existing LCA, the government is obliged to pay to First Nations annually. Payments amount to 7.5 per cent of the first USD2 million of resource royalties in that year and 1.5 per cent of any additional resource royalties received by government<sup>129</sup>.
- **Raglan agreement in Quebec:** The Raglan Agreement covers an underground nickel/copper mine with 17 million tonnes of reserves in northern Quebec and 20 years of mine lease life . The Inuits are receiving USD14 million and 4.5 per cent of mine profits (estimated at USD60 million) over 15 years. Other provisions like giving preference to Inuit enterprises and getting representatives appointed on the mine's board of directors have also been incorporated<sup>130</sup>.
- **Voisey's Bay project with INCO in Labrador:** The project is an open and an underground mine of nickel, copper and cobalt. It was to take place on land with 5,000 Inuits and 1,500 Innu Nation. People staged protests because the company was building an airstrip without their consent. The court halted the project causing delays that cost the company dearly in terms of finance. Finally INCO, the developer, agreed to sign an IBA with the Labrador Inuit association (LIA) and Innu nation.

The IBA was negotiated and included provisions like self-government, taxation and royalty. Labrador Inuits received five per cent of Labrador area as per the agreement, three per cent of the provincial mineral and mining taxes and resource royalties and 25 per cent of provincial royalty from future mining development on Inuit land. This royalty will be shared till the average wage in the area is USD17,000 a year which is the Canadian average<sup>131</sup>. Multi-party training is also a part of the agreement<sup>132</sup>.

- **Alberta Heritage Fund:** Alberta is home to one of Canada's oil deposits. In the area most non renewable resource rents are collected in the form of royalties (86 per cent)<sup>133</sup>. About two per cent of the non renewable resource rents comes from rentals and fees while 12 per cent of the revenues is from lease sales and bonuses<sup>134</sup>. These revenues form a part of the provincial fund from where they are allocated/earmarked for different projects/funds. Alberta Heritage Fund (AHF) is one of the funds operating in the province.

It invests the allocated funds to generate income for using in capital projects, health care, education, tax, etc. The fund is divided into five divisions that invest in different kinds of assets for different purposes. The fund is managed by the provincial government and the funds are used to

benefit present and future Alberta residents. The fund has enabled the residents to enjoy lower taxes and larger public expenditures. In 2005, each resident received USD400 as prosperity dividend<sup>135</sup>. Regular surveys are carried out by the provincial government to gauge the priority needs/interests of the residents for spending from the AHF.

## Australia

Australia is the sixth biggest country and one of the leading mineral resource nations in the world. Australia has six states New South Wales, Queensland, Tasmania, Victoria, Western Australia, South Australia and two major mainland territories - Northern Territory, Australian Capital Territory. Out of these states, northern territory is more important as it has more number of aborigines than elsewhere in the country and Western Australia because it is the largest mining state.

Mining contributes 7.7 per cent to national GDP<sup>136</sup>. Australia is the world's largest refiner of bauxite and the largest producer of gem, industrial diamonds, lead and tantalum, and mineral sands ilmenite, rutile and zircon. It has the world's largest resources of low-cost uranium. It is also the second largest producer of zinc, third largest producer of gold, iron ore and manganese.

The value of Western Australia's mineral and petroleum industry reached USD91.6 billion in 2010<sup>137</sup>. Of all the mineral sales in 2010, 87 per cent contribution i.e. USD79 billion came collectively from iron ore, petroleum and gold<sup>138</sup>. It is estimated that Western Australia will collect USD4.2 billion in royalties in 2010-11 which represents about 19 per cent of the total state government revenue.

### Mining Regulations

There are two land tenure systems in the Northern Territory - Aboriginal Freehold Land and Pastoral Leases. When exploring or mining on aboriginal freehold land, applications are subject to Aboriginal Land Rights Northern Territory Act, 1976<sup>139</sup>. The act recognises aboriginal system of land ownership and freehold. The act sets procedures for negotiation of mining agreements on aboriginal land through land councils and provides for funding of land councils through aboriginal benefit account (ABA)<sup>140</sup>. ABA is the institute involved in disbursing money to aboriginals which receives royalties from state government and the Commonwealth.

Part IV of the act establishes the role of land councils. These are representative bodies of elected aboriginals that assist people in managing their land. There are four councils in the Northern Territory; Northern Land Council, Central Land Council, Tiwi Land Council and Anindilyakwa Land Council. It is also the responsibility of the land councils to consult with traditional landowners before entering into any agreements with mining companies. The land council must also ensure that aborigines understand the nature and terms of the agreements. For any claim to be recognised, aboriginal landowners have to prove their traditional relationship with the land in the Supreme Court of Northern Territory. Land councils give directions to the land trust whether to give the land to the mining companies or not. Land trust is known to hold the communal title to land<sup>141</sup>.

The act also establishes a financial regime whereby land councils and affected aboriginal people receive a share of the mining royalties earned from activity on aboriginal land. The aboriginal benefit reserve (ABR) is specially created for this purpose<sup>142</sup>. Australian government guarantee all mining royalty for aboriginal interests except 30 per cent which is reserved for the owners of the affected area. This is regarded as the compensatory base for the affected people. Land owners can negotiate additional monetary and non-monetary benefits above this compensatory base<sup>143</sup>.

## Native Title Act, 1993

Native Title was first recognised in Australia when the Native Title Act (NTA) came into existence from January 1994<sup>158</sup>. Native title recognises the rights of people who maintain the traditional connection with the land. NTA unlike the Land Rights Act, does not provide veto power but provides the right to enter into negotiations with companies.

These agreements are called indigenous land use agreements (ILUA) and are voluntary agreements signed between native title holders and proponents of mineral exploration. ILUA is legally binding for people who are party to it<sup>145</sup>. Financial provisions in these agreements determine the quantum of payments, the form in which they accrue, to whom they accrue and how they will be spent<sup>146</sup>. To assist native title holders in these negotiations a Native Title Representative Body (NTRB) is formed. The funding of NTRBs is secured under the act and is to be provided by the government. For speeding up the process of negotiation, a six months period is assigned. If the negotiations do not get finalised within this period then the case goes to the arbitral body. The financial provisions cannot be decided on once the case has passed on for arbitration<sup>147</sup>.

## Mechanism for Benefit Sharing

Revenue sharing mechanisms depend on the applicable act. Under the Land Rights Act, the mining royalties are given to the ABR by the state government. It establishes the ABR which has the responsibility to receive and disburse royalties to the aboriginal stakeholders. The funds are received in the form of 'mining royalty equivalents' (MREs) which is the sum of royalties paid to the central and the territory governments by mining companies for activity on aboriginal land.

ABR is administered by the ABR Secretariat which is a Northern Territory State Office of the Aboriginal and Torres Strait Islander Commission in Darwin. Aboriginal and Torres Strait Islander Commission is an Australian government body through which aboriginal Australians and Torres Strait Islanders (indigenous people from Queensland) are involved. ABR distributes MREs in the following way: 40 per cent is paid to the land councils to cover administrative costs, 30 per cent is forwarded to the councils for distribution to aboriginal organisations in affected areas while the remaining 30 per cent goes towards projects that benefit the community. There is an advisory committee to the ABR which gives its recommendations to the minister to decide which programmes to fund. Out of 15 members in the advisory committee, 14 are elected from members of the land councils and the chair is decided by the minister.

Under the Native Title Act, revenue sharing occurs through agreements between aboriginals and mining companies. Agreements are a central feature of the relationship between aboriginals and mining companies<sup>148</sup>. Individual agreements are defined depending on goals pursued by particular indigenous groups.

There are six different types of financial sharing models:

- Model 1 is a one time upfront payment.
- Model 2 is a fixed annual payment. In this model, a particular amount is to be paid for some years and a different amount for the remaining years. It is advantageous because predictable amount each year will be paid to the community and it doesn't face all or nothing situation as in case of upfront payments.
- Model 3 is royalty based on output thus payments are linked to unit royalty. It is advantageous because as amount of production increases so does the finance for people. The pitfall is that as production falls the money also reduces and even if the prices of minerals are high the advantage cannot be shared with the community.

- Model 4 is 'royalty based on value of mineral output' thus royalty rates are based on production and prices.
- Model 5 is 'profit after tax'.
- Model 6 is 'equity participation'. The shares are obtained at substantial concession or for free for the indigenous groups. For the company it is beneficial to have an equity share of aboriginals as it increases their stake in making the project a success. In this case indigenous equity participation is more of cooperation rather than negotiation.

Combination of different financial models is applied at different stages of project cycle. Like a combination of upfront, annual payment and unit royalties<sup>149</sup>.

Models to manage revenues are being explored. Three models are the general disbursing mechanisms employed in agreements<sup>150</sup>:

In the first model, community should meet annually to decide on how the revenues are to be spent in the forthcoming year. Revenues from mining are to be put to three categories (1) holding mechanism (2) commercial investments intended to generate profit (3) immediate regular cash payments to members. The holding mechanism which is governed by a group of trustees is to invest money in child trust that pays money to individuals at age of 18. Some money is also to be invested in charitable trust that uses its resources to support medical and social needs.

The second model ensures a fair distribution of benefits. This model does not include individual payments as it adheres to the principle that everyone is affected. But the model ensures that those whose lands are lost receive more benefit than others. In this case revenues from mining are given to a trust that places 60 per cent of the income in long term investment fund. Income from this is reinvested after 20 years. Eighteen per cent is placed in community development fund, 17 per cent goes to traditional land owner groups and five per cent for administration costs. Although the allocation of money from community development fund can be done as people demand but it will be done after 20 years.

Third model talks of three types of benefit payments. Single lump sum, fixed annual payment and profit related annual payment. From lump sum payment 50 per cent goes to women's fund and 50 per cent to men's fund. Fixed annual payments can be used by affected communities for present use. Profit related annual payments go to aboriginal owners of mine site. The division from profit related annual payments is that 60 per cent of it is reserved for sustainability fund, 30 per cent goes into a special purpose fund for current community needs and 10 per cent for partnership fund. The 60 per cent that goes into sustainability fund can be invested so that until mining finishes the income is retained.

## United States

In Alaska in the US, is one of North America's largest oil field called the Prudhoe Bay. Operations started as early as 1960s in the area and it gave birth to the Alaska Permanent Fund (APF). The fund was formed on the premise that it would continue to generate future income flow once the state oil reserves diminished and would keep a check on excessive spending<sup>151</sup>. This required an amendment in the constitution which was passed in 1976.

The revenue stream from oil industry in Alaska comprises of – property tax, corporate tax, production tax and the royalties. More than 55 per cent of the revenue from the sector comes from royalties and more than 25 per cent comes from production taxes<sup>152</sup>. The state gets about 75 per cent of the royalties and 100 per cent of the related tax revenues while the Public School Fund gets 0.5 per cent<sup>153</sup>. Some portion of the funds was used to set up institutions devoted to economic development.

The fund comprises of the principal and the earnings part. The former is the dedicated part of the fund which once allocated cannot be changed except by voter approval. The latter is the income that is not allocated to any particular use and the decision on its use is made annually by the state legislature and the governor. The principal part of the fund comes from three sources:

- Dedicated oil revenues
- Appropriation made by the legislature
- Some income from the earning reserve

About 25 per cent of all mineral royalties, lease income, etc., are transferred to the APF while additional funds may also be transferred by the legislature<sup>154</sup>. The assets of the APF are managed by a state owned company called the Alaska Permanent Fund Corporation. Run by a six-membered board, there are public members as well and these together decide the asset allocation. At present, 55 per cent goes for stocks, 32 per cent in bonds, 10 per cent in real estate, two per cent private equity and one per cent absolute return<sup>155</sup>.

The main function of the APF is to pay dividends to every citizen of the state. Total dividends is about half of the fund's average income over the last five years. But as a percentage of all oil tax revenues, only about one-eighth is dedicated towards benefit sharing<sup>156</sup>.

## Norway

The Petroleum Fund in Norway was founded in 1990 by the Parliament and the first transfer of two billion Norwegian Krone (NOK) came in 1995<sup>157</sup>. Oil revenues comprise of royalties, taxes and state direct financial interest<sup>158</sup>. The premise for the fund is to provide income flow even when the oil reserves depletes. The fund is not dedicated for any pre-decided need/project. The central government transfers all petroleum revenues to the fund and Ministry of Finance manages it through the Norges bank. The investment is mainly in foreign bonds and equity with transparency in reporting. There also exists a special income surtax of 50 per cent on profits. The Norwegian society is the beneficiary of the fund which expands government budgets substantially. The fund benefits future residents with three-fourth of the revenues saved and invested.

## Botswana

Diamond, copper and nickel are important minerals for Botswana. The mineral industry in the country contributes as much as one third to one half of the country's GDP<sup>159</sup>. Botswana government collects modest royalty from the mining companies but demands free equity shares in return. The mining companies are also held responsible for implementing environmental protection measures as part of the mining policy in the country. The benefits from mining in the country accrue to general citizens without earmarking for a particular group. The presence of sound public institutions are said to have been the key reason for success of managing natural resource rent in the country.

There is nothing termed as 'best practice' for benefit sharing from minerals. Every country has developed a mechanism to suit its ground realities. However, the following three criteria are important to settle for ensuring most efficient and effective use of benefit sharing.

- **Defining beneficiaries:** This is a very important parameter since different countries have different cultural and legal set ups. There is a need to define who all will be the project affected people in other words who all will be eligible to receive compensation. Depending on the land tenure

system, this can be decided. For example, only those people who are land owners will receive the rent or even those with usufruct rights are eligible. All these things can only be settled if there is a mechanism to consult with local stakeholders in the form of free, prior, informed consent (FPIC).

- **Choosing managers and deciding where to use the money:** Once the beneficiaries are decided, the next important step is to decide who will manage the rents that accrue to these beneficiaries. The authority who will regulate and tax needs to be clearly defined. This can range from the central government, state governments or the district level authorities. There may also be the setting up of a separate fund body, with representation from local stakeholders, to manage funds but **some government control is advisable**. The next important step is to identify the need areas where these funds are to be put in use. While in some cases, it would make sense to allocate them to pre defined uses; in others it would be more appropriate to decide on an ongoing basis. This coupled with transparency in reporting about how much and where these funds are being utilised will result in efficient management.
- **Defining the benefits:** It needs to be decided as to what form will these benefits/rent take. Whether these will be cash transfers or increased public infrastructure for a particular community as a whole.

# The Mines and Minerals (Development and Regulation) Act

**T**he Mines and Minerals (Development and Regulation) (MMDR) Act, 1948 was the first legal framework for regulation and development of mines in independent India. Enacted in 1957 by the Parliament, two set of rules were made under the Act – the Mineral Concession Rules (MCR) and the Mineral Conservation and Development Rules (MCDR).

The MMDR Act has been amended four times since 1957. First amendment came in 1972 which enhanced government control over mining. The second amendment in 1986 increased the Central government control on mining and introduced the concept of an approved mining plan. In order to attract investments, the procedure for granting mineral concessions was simplified by an amendment in the MMDR Act in 1994. This amendment also introduced the concept of a Large Area Prospecting Licence (LAPL). Another amendment to the MMDR came in 1999 after a committee reviewed the Act. This amendment comprised a number of changes – introduction of reconnaissance operations prior to prospecting and a Reconnaissance Permit (RP), delegation of powers to the state government, liberalisation of area restrictions, etc.

Following the mid-term appraisal of the Tenth Five-year plan, the Planning Commission constituted a High Level Committee under Anwarul Hoda, (Member, Planning Commission) to recommend changes in the mining policy and laws to address issues ranging from non-transparency in allocation of mineral resources and illegal mining to addressing the social and environmental impacts of mining.

The Hoda Committee report was published in July 2006 with wide ranging recommendations like institutionalizing a Sustainable Development Framework (SDF) to address social, economic and environmental issues arising out of mining. Based on the Hoda Committee report, the government came out with a new National Mineral Policy in 2008 (NMP, 2008). Following the NMP, 2008, the Ministry of Mines has framed a new Mines and Minerals (Development & Regulation) Bill to replace the MMDR Act 1957.

The Ministry of Mines had put out a draft of the Mines and Minerals (Development and Regulation) Bill, 2010 in the public domain in June 2010. After this, a Group of Ministers (GoM) was constituted under Shri Pranab Mukherjee, Minister of Finance to consider draft MMDR Bill, 2010 and give its recommendations on various issues including the one on sharing the profits from mining with the local community.

Post GoM deliberations, Ministry of Mines has now come out with a new draft which is still not in public domain. However, CSE has obtained a copy of the new draft and given below are the key provisions of the draft Mines and Minerals (Development and Regulation) Bill, 2011.

## Draft MMDR Bill, 2011

### What goes to communities/affected people as per the draft

- Sub-section 7 of Section 6 of the draft MMDR Bill, allows state government to make provision for 'preferential' grant of mineral concession to cooperative of Schedule Tribes in the Schedule V and VI areas for area as specified under Sub-section 6 of Section 6. These are areas with small deposits in isolated patches, which are not suitable for scientific mining. Instead of giving mining lease for each isolated small deposit, a lease for a cluster of such deposits will be granted in favour of a Co-operative of the Scheduled Tribes in the Scheduled areas. *Thus, although there is a move to depict that some sort of preference is being given to people of fifth and sixth schedule areas, it is essentially up to the state government to notify such 'preference'.*

The concept of 'cluster mining' is in line with the National Mineral Policy, 2008<sup>160</sup>. The policy advocates the approach of cluster mining for small deposits by granting one lease for the deposits together within a geographically defined boundary. The policy also advocates that small scale miners are to be preferred for grant of such clustered mine leases. The policy states that preference for mining small deposits in Scheduled areas are to be given to Scheduled tribes formed as co-operatives. Also, a report by the working group of Ministry of Mines (MoM) documents the presence of a number of such clusters in the country – Makarana marble mines, china clay and fireclay mines in Bhiwara and Bikaner, limestone and dolomite mines in Madhya Pradesh, Chhattisgarh and Karnataka, etc<sup>161</sup>. The report recognised the economic non-viability of small scale mines and suggested that a single mining lease for such clusters maybe granted to a group of small entrepreneurs or tribals.

- Point (k) of Sub-section 1, Section 21 states that the prospecting licence holder has to pay compensation, as notified, to the person holding occupation rights of the surface of land.
- There is also a provision under which the prospecting licence holder may have to pay compensation for damage to land as prescribed in the licence (Point (a) under Sub-section 2 of Section 21).
- Point (m) of Sub-section 1 under Section 24 states that the mine leaseholder has to pay compensation, as specified under Section 43, to the person holding occupation, usufruct or traditional rights of the surface of land.
- Under section 26, sub-section 3, a CSR document has to be attached with a mining plan. This shall comprise of a scheme for annual expenditure by the lessee on socio-economic activities in and around the mine area for the benefit of the host populations in the *panchayats* adjoining the lease area and for enabling and facilitating self employment opportunities, for such populations.
- Profit sharing concept has been introduced for the first time in mining law in India under Sub-section 2 of Section 43 of this draft Bill. A mine leaseholder is to pay annually to the District Mineral Foundation (DMF), as specified in Section 56, **an amount equal to twenty six per cent of profit after tax or a sum equivalent to the royalty paid during the year, whichever is higher.**
- Under Sub-section 3 of Section 43, the lease holder (if a company) is also to allot at least one share other than cash to each person of the family affected by mining related operations. These shares are to be non-transferrable.
- Sub-section 5 of Section 43 makes provision for the leaseholder to **provide employment and or other assistance as per the rehabilitation and rehabilitation package of the state government** to people/family holding usufruct, occupation or traditional surface rights of the land over which the lease has been granted.

- Under Sub-section 7 of Section 43, after the termination of a mineral concession, the state government is to assess damages to the land, if any, and determine the compensation amount payable by the licensee or leaseholder. This compensation is to be paid to person holding occupation or usufruct or traditional rights of the surface of the land and they are to be consulted in the process of deciding the compensation.
- Point (b) under Sub-section 8 of Section 43 of the Bill says that the state government may initiate proceedings against lease holders if they fail to make the payments to the DMF as specified in Sub-section 2. Sub-section 9 clarifies cases of no records or disputes on whether a person/family holds usufruct, occupation or traditional surface rights. For this purpose, the Bill lays down a procedure where the Collector of the district, in consultation with the *gram sabha/gram panchayat*/district council, shall take such decision.
- Sub-section 10 of Section 43 lays down the responsibility of identifying affected people with the state. As per point (b) under the sub-section, the state government is to identify the directly or indirectly affected families by the mining operations, before the mining operations begin. The state government is also to ensure that monetary benefits are distributed to directly or indirectly affected people. **Point (c) adds that the amount payable to the affected people maybe decided based on the extent to which they are affected. This amount, on an average daily basis, is to be not less than at least the daily amount entitled to a person under the Mahatma Gandhi National Rural Employment Guarantee Act, 2005 (MNREGA) as per point (d).**
- Under Sub-section 2 of Section 46, the central government is to form a National Sustainable Development Framework (NSDF) in consultation with the state governments. The main function of the NSDF is to facilitate and ensure scientific development and exploration of minerals, protection of environment and prevention and control of pollution. Sub-section 4 lists down the important components of the NSDF like mitigation measures for adverse impact on environment and people, system of public disclosure of environmental parameters, consultative mechanisms for stakeholder interactions, develop indicators of sustainable development, etc. NSDF will also have broad criteria beyond which mining may not be deemed sufficiently sustainable and/or scientifically manageable.
- Sub-section 3 of Section 46 makes provision for the formation of a State Sustainable Development Framework (SSDF). The same can be formed only after prior approval of the central government.

### Provisions for taking action in case of non-compliance

- When operations are not carried out in line with the mineral concessions granted, the state government may under Sub-section 1 of Section 12, issue a show cause notice to the concession holder. The state may forfeit the security and may suspend, curtail or revoke the licence or lease.
- The government shall not permit the transfer of mining lease under certain conditions laid down in Sub-section 5 of Section 18. These include fragmentation or unscientific mining, not in the interest of mineral development and against national interest.
- The Indian Bureau of Mines (IBM) may issue direction to a Reconnaissance Licence (RL) holder to ensure compliance with conditions laid down in the RL under Sub-section 3 of Section 19.
- Under sub-section 1, section 47, the State Government may, in the interest of systematic development of mineral deposits, conservation of minerals, scientific mining, sustainable development and protection of the environment, issue directions to the owner, agent, mining engineer geologist or manager of a mine.

- Sub-section 2 of Section 49 says that if the Indian Bureau of Mines (IBM) or the Atomic Mineral Directorate (AMD) or the State Directorate is of the opinion that any mine or part of it poses a **threat to conservation of minerals or the environment**, then it may suspend operations. The same is to be done through a written order and the operations are to remain suspended till the order is complied with.
- Sections 104 to 107 define the offenses as recognised by the draft Bill. These may relate to carrying out exploration/mining without a licence, failure to implement the final mine closure plan, failure to implement the final mine closure plan, disobedience pertaining to any government/authority orders or any other contravention of the Bill.

## Rights of communities

- Notification of public lands for inviting applications to bid for prospecting licence, large area prospecting licence or mining lease is to be done in consultation with the *gram sabha* or district council in fifth and sixth schedule areas according to Sub-section 9 of Section 13. In non-schedule areas, the district *panchayats* are to be consulted.
- As per Sub-section 11 of Section 13, the *gram sabha* or the district council is to be consulted before granting mineral concession for minor minerals in a fifth or sixth schedule area.
- Under the provision of Sub-section 5 of Section 32, the concerned *panchayats* are to be consulted by the IBM or the AMD or the State Directorate before approving or disapproving the progressive mine closure plan. This is to be done within a period of ninety days from receipt of the plan.
- Sub-section 8 of Section 32 specifies that the final mine closure plan be based on the planned land use for the lease area after its closure. For deciding the planned land use, the concerned *panchayats* are to be consulted as the central government may prescribe.
- The concerned *panchayats* are also to be consulted for suggesting modifications to the mine closure plan before approving it as under Sub-section 10 of Section 32. This is to be carried out within a period of one year.

**Note: Provision for consultation with *gram sabha*/district council/*panchayats* before granting the concessions and on mine closure have been provided in the draft Bill. However, what this consultation means and how it will be conducted have not been define. What will be relationship between consultation and consent has not been explored.**

## Fees/royalty/security/fines

- The state government may charge a fees for transfer of mineral concession as prescribed by the central government as under Sub-section 6 of Section 17 of the draft Bill.
- A RL holder has to deposit a security equal to licence fee of first year under Sub-section 4 of Section 19. This security may get forfeited, in part or full, in case of breach of any condition under this Bill.
- Point (g) under Sub-section 1 of Section 21 of the Bill makes provision for the state government to collect a prospecting fee from the prospecting licence holder. The fee is calculated for the licence period at rupees fifty per hectare of land covered by the licence.
- The licence holder may have to pay an assured sum to the government against all claims of a third party for any damage, injury or disturbance caused by the licensee (Point (b) under Sub-section 2 of Section 21).

- Sub-section 4 of Section 21 makes provision for the prospecting licence applicant to deposit a security sum with the government. In case of breach of any condition by the licence holder under the Bill, this security may be forfeited (part or whole) and the state government may suspend or cancel the licence by order in writing. This order can be made only once a show cause has been served to the licence holder to provide an opportunity to be heard.
- Every mining leaseholder is to pay to the state government or the person with whom the land in which minerals vests, a yearly 'dead rent' as per Point (d) under Sub-section 2 of Section 23. The dead rent is to be calculated at the rates specified in the third schedule of the Bill. This rent starts accruing from the second year of the lease. The leaseholder is to pay either the dead rent or royalty whichever is higher.
- Under Point (e) of Sub-Section 2 of Section 23 there is provision for the leaseholder to pay a surface rent and water rate as prescribed by the state government.
- Point (n) under Sub-section 2 of Section 23 makes provision for the leaseholder to deposit a security sum with the government for observing terms and conditions of the lease. The security is to be calculated at rupees one lakh per hectare of the lease area payable in equal installments.
- All mine leaseholders are to pay royalty to the state government for any mineral removed or consumed by him as per Sub-section 1 of Section 41. This provision will apply to all leases granted before the commencement of this Bill as well. The rate of royalty is specified in schedule 2 of the Bill.
- Section 44 makes provisions for the central government to levy and collect a cess on all major minerals.
- As per Sub-section 1 of Section 45 of the draft Bill, the state government may notify cess rates to be levied and collected on major or minor minerals. This rate is not to exceed 10 per cent of the royalty.

### **Institutions/funds/bodies**

- Sub-section 3 of Section 41 lays down the provision of constitution of a National Mineral Royalty Commission (NMRC) by the central government (through notification). The main function of the NMRC is to review royalty rates and dead rent rates and recommend revisions in the same and to suggest actions against leaseholders that fail to pay royalty.
- The Bill makes provision to establish a National Mineral Fund (NMF) under Sub-section 1 of Section 50. The provision gives the right to the central government to develop such fund by notification. Sub-section 3 mentions the uses this NMF is to be put to. These include R&D in sustainable mining, developing capacity of IBM, detecting and preventing illegal mining and promoting scientific mining among other things.
- Under Sub-section 1 of Section 53, the state government may also establish a fund, State Mineral Fund (SMF), by notification. The same is to be used for a number of purposes as specified under Sub-section 4. These are funding of *panchayats* or *gram sabhas* or district councils, developing capacity of State Directorate, setting up and operation of special courts (as under Section 99), rewarding whistle blowers on illegal mining, etc.
- Under Section 56, the Bill makes provision for the constitution of a trust called District Mineral Foundation (DMF). This trust is to function as a non-profit body and is to be constituted by the state government. Under Sub-section 4, the functions of the DMF are laid down. The primary function is the distribution of monetary benefit to persons/families affected by mining operations in the district.

Sub-section 7 says that the fund collected under the DMF will be utilised for payment of monetary benefits to affected persons holding occupation, usufruct or traditional rights in the concerned area. These payments are to be made quarterly or annually. The provisions gives state government the power to decide the amount of monetary benefits to different categories of PAPs. This amount, on an average daily basis, should not be less than the amount payable to a person under the NREGA.

- Section 57 gives the structure and the composition of the DMF. Under sub-section 1, the DMF is to be managed by a Governing Council consisting of the district magistrate (DM) (chairperson), president of the zila parishad, all holders of mine lease areas in the district, head of local offices of concerned state departments, representatives nominated by the DM in consultation with the PAPs, representative of IBM and district mining officer (secretary). Sub-section 2 states the functions of this council. The council is responsible for drawing up the annual budget of the money available with the DMF, approving the disbursement of amounts to PAPs and approving other expenditures.
- The central government may, through notification, establish a National Mining Regulatory Authority (NMRA) under Section 58 of the draft Bill. The NMRA is to consist of a chairperson and not more than nine members appointed by the central government, by notification as per Sub-section 1 of Section 59. The NMRA will have the power to review royalty rates<sup>162</sup> and cess rates and recommend revisions, suggest penalties regarding non-compliance in royalty payments, settle disputes in matters of inspection (states vs IBM), suggest measures for attracting investments, etc.
- Sub-section 6 of Section 61 recognises that all proceedings before the NMRA shall be deemed to be judicial proceedings and shall be deemed to be a civil court.
- The central government may, through notification, establish a National Mining Tribunal (NMT) under Section 62. Section 65 lays down the powers of the NMT under Sub-section 1 as: Hearing matters from affected people on various issues and dispose off applications where the governments have failed to do so. Sub-section 4 states that all proceedings before the NMT will be judicial proceedings and the tribunal will be a civil court.
- Similarly under Section 80 of the Bill, the state government may establish a State Mining Regulatory Authority (SMRA), through notification. The powers of the SMRA as defined in Sub-section 1 of Section 82 are to investigate and prosecute in matters relating to offenses under the Bill.
- Under Section 83, the state government may establish a State Mining Tribunal (SMT), through notification. The powers of the SMT as defined in Sub-section 1 of Section 93 are: To hear matters from affected people and dispose off applications where the state government has failed to do so. Sub-section 4 states that all proceedings before the SMT will be judicial proceedings and the tribunal will be a civil court.
- Section 96 under Sub-section 1 lays down provision for the central government to constitute a Central Coordination-cum-Empowered Committee (CCEC), by notification. The CCEC is to have representation from central and state governments. The function of the CCEC is to make recommendations for improving procedure for grant of mineral concessions, coordination among various clearance-granting bodies, maintenance of databases, development, implementation and evaluation of a sustainable development framework and prevention and detection of illegal mining.
- Similarly, under Section 97 Sub-section 1, the state government shall constitute a State Coordination-cum-Empowered Committee (SCEC) by notification. The SCEC is to have representatives of the concerned state departments. Functions as laid down under Sub-section 2 are: To oversee clearance grant, follow up on CSR activities, monitor implementation of the mine closure plans, coordination for prevention/detection /prosecution of illegal mining cases.

- The central government may also establish, by notification, a National Drill Core Repository and a National Geophysical Data Repository as specified under Section 98.
- Section 99 of the draft Bill deals with 'special courts'. Sub-section 1 mentions that special courts may be constituted, through notification, by the state governments for providing speedy trials of offenses. These offenses are those referred in Sections 104 to 107 of this Bill. Offenses punishable under these Sections are to be tried only in special courts, within whose jurisdiction the offense has been committed, as specified under Sub-section 1 of Section 100. This concedes over anything contained in Code of Criminal Procedure, 1973.
- Section 125 of the Bill specifies that this Bill is only in addition to the present laws and does not revoke any provisions of existing laws.

## CHAPTER 7

## Conclusion

It is now well recognised across the world that wealth generated by the mining sector comes at a substantial development cost, along with environmental damages and economic exclusion of the marginalised. This has also been exhaustively documented in India. In fact, the major mining districts of India are among its poorest and most polluted. Considering the negative externalities of the mining sector, new policies and practices are being explored and implemented across the world to ensure that mineral wealth can be converted into sustainable development benefits for local communities.

Many mineral rich countries have enacted legislations in which provision of benefit sharing with the local communities is explicitly stipulated. Many of these legislations are built around a comprehensive framework in which compensation, benefit sharing and community development plans are integrated and the roles of local communities, governments and mining companies are clearly delineated.

In fact, the famous 1997 Supreme Court judgment on this matter (also referred to as the Samata Judgement) directed that in Schedule V areas, where the state government is undertaking mining, at least 20 per cent of net profits would be set aside as a permanent fund for development needs. This will be in addition to reforestation and maintenance of ecology.

The government's proposal to replace the MMDR Act with the MMDR Bill 2011, to include a specific provision for sharing 26 per cent of the net profits with local communities is an important step ahead in building an inclusive growth model. This proposal is also in line with the best practices being followed in the world. The principles are not new and many mineral rich countries have been following it for years without impacting the genuine profitability of mining companies.

### What 26 per cent means for the local communities?

The draft MMDR Bill, 2011 which we understand has been cleared by the GoM and is ready to be presented to the Parliament, stipulates that a mining company is to pay annually to the DMF, an amount equal to 26 per cent of profit after tax or a sum equivalent to the royalty paid during the year, whichever is higher. The DMF will then distribute monetary benefits directly or indirectly to affected people.

**If this profit sharing provision comes into effect, at the present level of mining in the country, it will generate close to ₹10,500 crore as share of profits for the local communities.** This is about seven times the Union Ministry of Tribal Affairs budget for 2011-12 and about the same as what Ministry of Women and Child Development spent in 2010-11. A major portion of this will be available to the top 50 mining districts of the country, which together will get as much as ₹9,000 crore. Of the top 50 districts, at the current level of mining, 31 districts will get more than ₹100 crore per year.

The top 50 mining districts, in terms of value of mineral production, are in 13 states. Jharkhand has nine of these districts, Odisha, Madhya Pradesh and Chhattisgarh six districts each, five of these are in Andhra Pradesh and four districts in Maharashtra (see Table 1.8: Top 50 mining districts and profit sharing provision).

The MMDR provision states that either 26 per cent of the PAT or royalty amount, whichever is higher is payable to the PAPs. The MMDR provision translates into seven per cent of the value of mineral production. Royalty for the year 2010-11 in India was about ₹10,500<sup>163</sup> crore which was about 10.54 per cent of the value of mineral production<sup>164</sup>. Thus, royalty is more than the PAT provision.

Now, let us consider the top 50 districts in India based on value of mineral production, these together account for more than 85 per cent of the value of mineral production in the country (see Table 1.8: Top 50 mining districts and profit sharing provision). If for each district the royalty ratio of 10.54 per cent is used, the kind of money available for PAPs in the districts will vary between ₹1,000 crore to ₹18 crore. Within the top 50 mining districts, at one end of the spectrum is Korba in Chhattisgarh, which will get the maximum amount of ₹960 crore per year. Pali in Rajasthan, on the other end of the spectrum, would get just ₹18 crore annually.

As per CSE's estimation, these 50 districts, which account for about half of the total mine lease area in the country, have about 2.5 million people directly affected by mining. **If the share of profits from mining is equally distributed to all these people, everyone could get as much as ₹38,000 per year. This is more than five times the official poverty line in India.** It is important to understand that most mining districts suffer from large-scale poverty and deprivation. The provision of profit sharing will go a long way in reducing them.

Korba, the top mining district in India and one of the most critically polluted areas of the country, can get ₹961 crore per year. This means that, every household (whether affected or not) in Korba can be given ₹40,000 annually as share of profit.

Dantewada (Chhattisgarh), the most severely naxal affected district of the country, produced minerals worth ₹3,961 crore in 2010-11. More than 80 per cent of the population lives below poverty line (BPL), with Schedule Tribes (ST) constituting about 80 per cent of the total population. If Draft MMDR provisions were implemented, the mining affected population of the district could have got more than 400 crore in 2010-11 as profit share. Every household in Dantewada could have been given ₹40,000 annually.

Keonjhar, Odisha produces more than ₹7,000 crore worth of minerals, mainly iron ore. More than half the population is BPL with ST contributing about 45 per cent of the population. About 1.25 lakh people are estimated to be directly affected by mining. If Draft MMDR provisions were implemented, these people could have got more than ₹750 crore in 2010-11 as profit share. In other words, every directly affected person would have got more than ₹60,000 annually.

Sudergarh, Odisha with more than one-third BPL population and about half of the population being ST, could have got ₹285 crore as share of profit from the mining companies in 2010-11. Every directly affected person from mining in the district would have got about ₹45,000 annually.

At the present level of mining, the mining affected people in Odisha would have got about ₹1,750 crore as share of profit from mining companies. **This is ₹100 crore more than the annual budget of the Department of Health and Family Welfare, Government of Odisha for the year 2011-12.** This money could have been used to reduce hunger, provide better health and education infrastructure and to ultimately bring people out of poverty.

Table 1.8: Top 50 mining districts and profit sharing provision

State	District	Value of minerals (in ₹ crore): 2010-11	Population 2011 (in lakh)	Mine lease area (as of March 31, 2008), in hectare #	Population affected*	Profit sharing as per draft MMDR provision (in ₹ crore)**	Profit sharing per affected population (₹/annum)	Profit sharing for every household of the district (₹/annum)***	Literacy rate (%)	SC + ST population (%)	Area under forest (% of Total area)	
Andhra Pradesh	Karimnagar	2213	38.1	10387	66477	233	35083	3059	59.4	21.2	14.2	
	Khammam	1702	28.0	9011	31539	179	56874	3205	59.2	43.0	44.4	
	Adilabad	997	27.4	6690	22746	105	46194	1919	54.9	35.3	37.7	
	Anantapur	975	40.8	4361	18578	103	55329	1259	57.6	17.6	2.2	
	Cuddapah	329	28.8	5981	22489	35	15443	602	68.0	18.1	22.2	
	Overall	6216	163.2	36430	161828	655	40487	2008	59.7	25.9	23.8	
Chhattisgarh	Korba	9121	12.1	13907	46966	961	204691	39839	63.0	51.5	50.8	
	Dantewada	3961	5.3	2742	3230	417	1292417	39175	36.5	81.9	64.4	
	Surguja	1081	23.6	6198	17893	114	63705	2414	51.5	59.4	45.6	
	Koriya	778	6.6	1100	2425	82	338098	6221	61.3	52.6	62.3	
	Raigarh	494	14.9	991	4533	52	114879	1743	64.3	49.6	36.2	
	Durg	366	33.4	3860	30234	39	12762	577	69.7	25.2	9.0	
Goa	Overall	15801	96.0	28798	105282	1665	158190	8677	61.1	45.7	44.3	
	North Goa	3091	8.2	9843	92721	326	35141	19922	80.7	2.3	49.8	
	South Goa	2790	6.4	21614	140926	294	20869	22978	76.9	1.2	65.4	
	Overall	5882	14.6	31457	233647	620	26533	21264	79.0	1.8	58.1	
	Kutch	458	20.9	8539	7856	48	61497	1156	72.0	20.0	5.1	
	Surat	187	60.8	1511	41590	20	4739	162	76.5	31.6	17.1	
Jharkhand	Overall	645	81.7	10051	49446	68	13757	416	75.4	28.6	6.1	
	Dhanbad	3760	26.8	6362	163387	396	24256	7386	65.3	24.4	6.8	
	Hazaribagh	1895	17.3	15075	120601	200	16563	5760	59.4	26.8	34.2	
	Singbhum (w)	1195	15.0	16596	69371	126	18157	4194	49.5	58.2	38.7	
												Continued...

Table 1.8: Continued...

State	District	Value of minerals (in ₹ crore): 2010-11	Population 2011 (in lakh)	Mine lease area (as of March 31, 2008), in hectare #	Population affected*	Profit sharing as per draft MMDR provision (in ₹ crore)**	Profit sharing per affected population (₹/annum)	Profit sharing for every household of the district (₹/annum)***	Literacy rate (%)	SC + ST population (%)	Area under forest (% of Total area)
Karnataka	Chatra	1083	10.4	10321	56766	114	20109	5476	50.9	35.8	47.8
	Godda	1041	13.1	3909	48628	110	22563	4183	47.4	32.2	18.9
	Bokaro	953	20.6	7032	100698	100	9977	2436	63.4	25.6	29.0
	Ranchi	541	29.1	5828	64108	57	8895	979	66.9	47.0	24.7
	Palamau	250	19.4	1576	12009	26	21956	681	54.8	44.4	40.7
	Deogarh	202	14.9	518	6238	21	34139	714	54.7	24.8	6.8
	Overall	10921	166.7	67218	641806	1151	17934	3452	58.8	35.5	31.2
	Bellary	3957	25.3	11980	71880	417	58030	8236	58.7	36.4	9.1
	Chitradurga	741	16.6	4744	18692	78	41761	2351	65.9	39.7	5.0
	Raichur	330	19.2	994	4531	35	76715	903	51.9	37.2	0.4
Madhya Pradesh	Overall	5028	61.2	17718	95103	530	55722	4331	58.5	37.6	4.8
	Chhindwara	1776	20.9	5359	18970	187	98694	4478	63.0	46.3	38.4
	Shahdol	1729	10.6	3291	11322	182	161002	8558	58.5	51.8	27.4
	Balaghat	600	17.0	2282	8396	63	75306	1858	68.8	29.5	54.1
	Betul	395	15.8	1203	3777	42	110215	1321	60.9	50.0	35.6
	Umaria	294	6.4	464	1466	31	211538	2409	56.9	50.9	49.9
	Sidhi	3392	11.3	9563	44375	358	80567	15868	55.0	41.7	39.0
	Overall	8187	82.0	22162	88306	863	97716	5260	61.6	44.0	40.5
	Chandrapur	2382	21.9	10986	42186	251	59502	5720	73.1	32.5	35.6
	Nagpur	1318	46.5	4295	40375	139	34414	1493	80.3	28.0	20.5
Maharashtra	Yeotmal	1390	27.8	6325	25806	147	56778	2640	71.4	29.5	19.2
	Bhandara	318	12.0	850	4982	34	67354	1400	76.4	26.4	24.8
	Overall	5408	108	22456	113350	570	50290	2634	76.1	29.1	24.9
	Keonjhar	7370	18.0	28724	124661	777	62310	21544	59.3	56.1	38.9

Continued...

Table 1.8: Continued...

State	District	Value of minerals (in ₹ crore): 2010-11	Population 2011 (in lakh)	Mine lease area (as of March 31, 2008), in hectare #	Population affected*	Profit sharing as per draft MMDR provision (in ₹ crore)**	Profit sharing per affected population (₹/annum)	Profit sharing for every household of the district (₹/annum)***	Literacy rate (%)	SC + ST population (%)	Area under forest (% of Total area)
Rajasthan	Angul	3049	12.7	13700	54526	321	58938	12635	69.9	28.9	41.9
	Sudergarh	2705	20.8	14604	62504	285	45614	6851	65.3	58.8	41.8
	Jharsuguda	1324	5.8	6491	35570	140	39233	12041	70.0	48.4	14.4
	Jajpur	1149	18.3	4195	52862	121	22915	3316	71.3	30.8	8.8
	Koraput	191	13.8	6565	20483	20	9841	732	42.1	62.7	19.1
	Overall	15788	89.4	74279	350607	1664	47463	9309	62.7	48.2	31.9
	Bhilwara	1151	24.1	11489	52850	121	22950	2516	53.4	24.7	2.1
	Sirohi	171	10.4	1826	7376	18	24405	868	46.7	43.9	17.9
	Pali	170	20.4	3458	11411	18	15686	439	54.1	23.6	5.3
	Udaipur	513	30.7	11917	57680	54	9380	882	52.5	53.9	23.2
Tamil Nadu	Chittorgarh	491	15.4	5848	22572	52	22920	1675	54.0	35.4	15.6
	Overall	2496	101.0	34538	151889	263	17317	1302	52.7	36.9	12.3
	Cuddalore	2485	26.0	8001	112336	262	23311	5034	71.1	28.3	12.0
Uttar Pradesh	Sonebhadra	2507	18.6	12313	66490	264	39743	7094	55.2	42.0	37.4
	Burdwan	4184	77.2	8510	187220	441	23555	714	70.0		3.7

**Note:** # District-wise coal mine area has been estimated by assuming that coal production is proportional to lease area. That is, the total lease area of individual subsidiaries of CIL were distributed in to each district in which they operate based on the proportion of total coal production.

\* Twice the mine lease area has been assumed as affected area and population in this area has been calculated by assuming its population density to be the average population density of the state.

\*\* Draft MMDR provides for profit share as 26% of the net profits or the royalty, which ever is higher. The minimum that the mining industry will, therefore, give as share of the profit is the royalty. We have therefore, assumed royalty paid by the mining industry is 2010-11 as the profit share. Since district-wise royalty paid by the mining industry is not available, we have used the value of minerals produced in each district to estimate the district-wise royalty. On an average, the royalty paid by the mining industry is about 10.5% of the value of minerals.

\*\*\* We have assumed household size as 5.

**Source:** CSE analysis.

Royalty from coal estimated at ₹6,000 crore and royalty for non-coal minerals was ₹4,470 crore. For this calculation, value of mineral production is taken as value of only coal and major minerals.

## Will profit sharing reduce the profitability of mining companies and make mining unviable in the country?

An analysis of six stand-alone mining companies and three companies with captive mines shows that even after sharing 26 per cent of their profits, there is no significant dent in the profit margins of these companies.

For example, NMDC's PAT to gross sales ratio will become 41 per cent after sharing 26 per cent of its profits with PAPs from the initial ratio of 55 per cent. CIL's PAT to gross sales ratio will also only marginally go down from 18 per cent to 14 per cent, if it follows the draft MMDR provision. SGL will see a dip in its PAT to gross sales ratio from 40 per cent to 29 per cent.

Similarly for companies with captive mines, following the application of the MMDR provision of 26 per cent profit sharing, the PAT to gross sales ratio comes down from 24 per cent to about 17.5 per cent (see *Table 1.10: Profit sharing provision and companies with captive mines*). NALCO, for instance, will see a minor drop in its PAT to gross sales ratio - from 15 to 11 per cent while for HCL the drop is a mere three per cent - from 11 to eight per cent, with the implementation of the MMDR provision.

**Table 1.9: Profit sharing provision and stand-alone mining companies\***

Company	Gross sales	PAT	PAT/Gross Sales (%)	MMDR provision (26% of PAT)	PAT-MMDR provision	PAT/Gross Sales (%) (after MMDR provision)
CIL	52188	9623	18.44	2502	7121	13.65
GMDC	1066	280	26.27	73	207	19.44
MOIL	966	466	48.24	121	345	35.70
NMDC	6230	3447	55.33	896	2551	40.94
RSMM	914	112	12.25	29	83	9.07
SGL	6654	2639	39.66	686	1953	29.35

**Note:** \*for the year 2009-10, Figures in ₹crore

**Source:** CSE analysis from annual reports of companies

**Table 1.10: Profit sharing provision and companies with captive mines**

Company	Gross sales	PAT	PAT/Gross Sales (%)	MMDR provision (26% of PAT)	PAT-MMDR provision	PAT/Gross Sales (%) (after MMDR provision)
HCL	1430	155	10.84	40	115	8.02
HZL	6142	2728	44.42	709	2019	32.87
NALCO	5311	814	15.33	212	602	11.34

**Note:** \*for the year 2009-10, Figures in ₹crore

**Source:** CSE analysis from annual reports of companies

## Way ahead

We strongly believe that sharing the wealth of minerals will go a long way in improving the lives and livelihoods of the mining affected communities. However, there are major challenges in implementing the profit sharing mechanism at the ground level.

### Identifying beneficiaries

- Identifying directly and indirectly affected people would be a major challenge. Learning from the Forest Rights Act, a transparent and accountable procedure should be established to identify mining affected people. *Gram sabha* should be involved in the identification process.
- As a good practice, the list of people who would be called mining affected should be rational and selective. The list should not be expanded to an extent that profit sharing becomes meaningless and the money is largely spent on general ‘development’ of the district. In other words, the government will have to come out with a selective list to identify beneficiaries.
- Only people who have lost their livelihood or whose livelihood has been directly affected by mining should be entitled for direct payment. For other affected people, money could be spent in targeted programmes like health care or education.
- For very old mines, where identifying beneficiaries would be difficult because of out migration of displaced people and influx of outsiders, a district level fund for targeted expenditure could be devised. This does not mean that effort should not be made to identify the descendants of the displaced people.

### Where this money should be spent?

- Learning from the global experience, the money should not be only spent for present consumption/development needs. A part of the money should also be spent/kept for the future.
- We think that the money should be broadly spent under three categories:
  - A part of the money should be used to reduce the present impoverishment risks. This money should be directly given to BPL families directly affected by mining.
  - A part of the money should be used to build the future livelihood of PAPs. This could be used for education, health, livelihood training, loans to establish businesses, etc.
  - A part of the money should be invested for the future. This money should be kept to revive the economy of the area when mining finishes.

### Who should administer the money?

- Under the draft MMDR bill, 2011 the District Mineral Fund (DMF), a non-profit trust, will be established to administer the funds. DMF will be managed by a Governing Council headed by the District Magistrate and will have as members:
  - President of Zila Parishad
  - All mining companies of the district
  - Representatives of the affected population nominated by the District Magistrate (numbers not specified)
  - Heads of the local offices of departments concerned of the state government (departments not specified)
  - Representative of the Indian Bureau of Mines
  - District Mining Officer (secretary)

- We believe that this composition is highly skewed towards government and mining companies and is not in the spirit of the profit sharing principal. Profit sharing has to be seen as the right of the local community and not as a dole or CSR. The Governing Council, therefore, should be composed in a manner that the affected community should decide where to spend the money. This decision is to be taken following a broad framework decided by the government. This means that the Governing Council should be run and managed by the representatives of the affected people, with participation from district government and mining companies.
- The DMF should be established as a transparent and accountable organisation. It should be open to the government as well as public audit.
- There should be procedure put in place to fix responsibility and accountability at each level.
- Every document, financial or non-financial, should be put on the website.
- The administrative cost of DMF should not exceed five per cent of the annual funds received by DMF.

# References

1. Anon, 2010, *Indian Minerals Yearbook 2009*, Indian Bureau of Mines, Nagpur, pg. 1-4
2. Excluding 3 atomic minerals
3. Anon, 2011, *Annual Report 2010-11*, Ministry of Mines, pg. 9
4. Analysis based on Anon, 2011, *Annual Report 2010-11*, Ministry of Mines, pg. 144
5. ibid
6. ibid
7. Anon, 2011, *Annual Report 2010-11*, Ministry of Mines, pg. 11
8. Anon, 2010, *Handbook of Statistics on Indian Economy 2009-10*, Reserve bank of India, Mumbai, Page 11
9. Chandra Bhushan et al, 2008, *Rich Land Poor People – Is Sustainable Mining Possible?*, Centre for Science and Environment, New Delhi, pg. 47
10. Excluding atomic minerals, petroleum, natural gas and minor minerals.
11. Anon, 2011, *Annual Report 2010-11*, Ministry of Mines, pg. 11
12. ibid
13. Excluding fuel, atomic and minor minerals.
14. ibid
15. Mineral Economics Division, 2011, *Bulletin of Mining Leases & Prospecting Licenses, 2009*, Indian Bureau of Mines, Nagpur, pg. 55
16. Mineral Economics Division, 2011, *Bulletin of Mining Leases & Prospecting Licenses, 2009*, Indian Bureau of Mines, Nagpur, pg. 4-5
17. Anon, 2010, *Indian Minerals Yearbook 2009*, Indian Bureau of Mines, Nagpur, pg. 10-1
18. ibid
19. ibid
20. ibid
21. Anon, 2010, *Indian Minerals Yearbook 2009*, Indian Bureau of Mines, Nagpur, pg. 10-18
22. ibid
23. ibid
24. Anon, 2010, *Indian Minerals Yearbook 2009*, Indian Bureau of Mines, Nagpur, pg. 24-28
25. Anon, 2011, *Annual Report 2010-11*, Ministry of Mines, pg. 144
26. ibid
27. Anon, 2010, *Indian Minerals Yearbook 2009*, Indian Bureau of Mines, Nagpur, pg. 24-1
28. Anon, 2011, *Annual Report 2010-11*, Ministry of Mines, pg. 144
29. ibid
30. Anon, 2010, *Indian Minerals Yearbook 2009*, Indian Bureau of Mines, Nagpur, pg. 17-12
31. Anon, 2011, *Annual Report 2010-11*, Ministry of Mines, pg. 144
32. ibid
33. Anon, 2010, *Indian Minerals Yearbook 2009*, Indian Bureau of Mines, Nagpur, pg. 47-22
34. Anon, 2011, *Annual Report 2010-11*, Ministry of Mines, pg. 144
35. Anon, 2010, *Indian Minerals Yearbook 2009*, Indian Bureau of Mines, Nagpur, pg. 26-7
36. ibid
37. Anon, 2010, *Indian Minerals Yearbook 2009*, Indian Bureau of Mines, Nagpur, pg. 8-6
38. ibid
39. ibid
40. Anon, 2011, *Draft Recommendations for the Allocation and Pricing of Natural Resources: To What Extent can we use market mechanisms?*, Cabinet Secretariat, New Delhi, pg. 12
41. ibid
42. Anon, 2011, *Annual Report 2010-11*, Ministry of Mines, pg. 1
43. ibid
44. ibid
45. Dead rent is a fee charged by the government mining company/individual for the area included in the mine lease area from which no minerals are being extracted. Rates for dead rent are based on area of mining and value of minerals.

46. Effective Tax Rate: Is the amount of taxes collected as a percentage of pre-tax cash flow generated by the project over its expected life time.
47. Chandra Bhushan et al, 2008, *Rich Lands, Poor People – Is Sustainable Mining Possible?*, Centre for Science and Environment, New Delhi, pg. 54
48. ibid
49. Chandra Bhushan et al, 2008, *Rich Lands Poor People – Is sustainable Mining Possible?*, Centre for Science and Environment, New Delhi, pg. 7
50. ibid
51. Chandra Bhushan et al, 2008, *Rich Lands Poor People – Is Sustainable Mining Possible?*, Centre for Science and Environment, New Delhi, pg. 74
52. ibid
53. Chandra Bhushan et al, 2008, *Rich Lands Poor People – Is Sustainable Mining Possible?*, Centre for Science and Environment, New Delhi, pg. 68
55. ibid
56. Michael M Cernea, 2000, *Risks, Safeguards and Reconstruction: A Model for Population Displacement and Resettlement*, Economic and Political Weekly, New Delhi, pg. 3659
57. Anon, 1994, *Resettlement and Development: The Bank-wide Review of Projects Involving Involuntary Resettlement 1986-1993*, The World Bank – Environment Department, Washington DC, pg. xv
58. ibid
59. Anon, 1994, *Resettlement and Development: The Bank-wide Review of Projects Involving Involuntary Resettlement 1986-1993*, The World Bank – Environment Department, Washington DC, pg. 5/19
60. Anon, 1994, *Resettlement and Development: The Bank-wide Review of Projects Involving Involuntary Resettlement 1986-1993*, The World Bank – Environment Department, Washington DC, pg. 5/20
61. ibid
62. Michael M Cernea, 2000, *Risks, Safeguards and Reconstruction: A Model for Population Displacement and Resettlement*, Economic and Political Weekly, New Delhi, pg. 3659
63. ibid
64. Dominique Egge, 2007, *Compendium on relevant practices - 2nd stage: Revised Final Report: Benefit Sharing Issue*, UNEP – Dams and Development Projects, Canada, pg. 24
65. Jim Sinner and Jorn Scherzer, 2007, *The public interest in resource rent*, Ecologic Foundation, New Zealand
66. Carolyn Fischer, 2007, *International Experience with Benefit-Sharing Instruments for Extractive Resources*, Resources For the Future, Washington, pg. 4
67. Carolyn Fischer, 2007, *International Experience with Benefit-Sharing Instruments for Extractive Resources*, Resources For the Future, Washington, pg. 52-62
68. Dr. Greg Corbett, 2005, *The Geology and Minerals Potential of Papua New Guinea*, Papua New Guinea Department of Mining, pg. 9
69. TJ Brown et al, 2011, *World Mineral Production 2005-09*, British Geological Survey 2011, Nottingham, pg. 43
70. TJ Brown et al, 2011, *World Mineral Production 2005-09*, British Geological Survey 2011, Nottingham, pg. 29
71. The figure does not take into account crude oil production
72. TJ Brown et al, 2011, *World Mineral Production 2005-09*, British Geological Survey 2011, Nottingham, pg. 14
73. For the period 2000-06
74. <http://www.nso.gov.pg/statistical-data/national-accounts/gdp-current> as viewed on April 12, 2011
75. Anon, 2010, *Papua New Guinea: Selected Issues Paper and Statistical Appendix*, International Monetary Fund, Washington DC, pg. 2
76. [http://www.pwc.com/en\\_PG/pg/publications/assets/2009-png-tax-facts-figures.pdf](http://www.pwc.com/en_PG/pg/publications/assets/2009-png-tax-facts-figures.pdf) as viewed on April 18, 2011
77. As of September 2009
78. Anon, 2009, *Papua New Guinea – A supplement to Mining Journal*, Aspermont UK, London, pg. 3
79. <http://www.mra.gov.pg/Portals/0/Mining%20Infor/EL%20Lisitng%20Updated%20April09.pdf> as viewed on April 13, 2011
80. <http://www.mra.gov.pg/Portals/0/Archives/EL%20renewal%20Lisitng%20Updated%20April09.pdf> as viewed on April 13, 2011
81. <http://www.mra.gov.pg/Portals/0/Archives/EL%20new%20applications%20Lisitng%20Updated%20April09.pdf> as viewed on April 12, 2011
82. <http://www.mra.gov.pg/Portals/0/Mining%20Infor/projects%20map.pdf> as viewed on April 13, 2011
83. Sanjay Srivastava et al, 2007, *India Towards Sustainable Mineral-Intensive Growth in Orissa – Managing Environmental and Social Impacts*, The World Bank, pg. 51
84. [http://epress.anu.edu.au/ssgm/global\\_gov/mobile\\_devices/ch14s02.html](http://epress.anu.edu.au/ssgm/global_gov/mobile_devices/ch14s02.html) as viewed on April 20, 2011

85. <http://www.oktedi.com/operations/the-mineral-resource> as viewed on April 13, 2011
86. Anon, 2009, *Papua New Guinea – A supplement to Mining Journal*, Aspermont UK, London, pg. 4
87. <http://pubs.iied.org/pdfs/G00805.pdf> as viewed on April 25, 2011
88. ibid
89. ibid
90. ibid
91. ibid
92. Lawrence Kalinoe, 2008, *The Ok Tedi Mine Continuation Agreements: A Case Study Dealing with Customary Landowners' Compensation Claims*, The National Research Institute, Papua New Guinea, pg. 11
93. Anon, 2010, *Mining Foundations, Trusts and Funds – A Sourcebook, Executive Summary*, The World Bank, pg. 7
94. Carolyn Fischer, 2007, *International Experience with Benefit-Sharing Instruments for Extractive Resources*, Resources For the Future, Washington DC, Pg. 39-40
95. ibid, exchange rate used: 1 Kina (K) = 0.42 USD
96. <http://www.oktedi.com/about-us/otml-at-a-glance> as viewed on April 20, 2011
97. <http://www.newcrest.com.au//operations.asp?category=8> as viewed on April 13, 2011
98. ibid
99. <http://pubs.iied.org/pdfs/G00805.pdf> as viewed on April 25, 2011
100. <http://www.barrick.com/GlobalOperations/AustraliaPacific/PorgeraJV/default.aspx> as viewed on April 13, 2011
101. <http://pubs.iied.org/pdfs/G00805.pdf> as viewed on April 25, 2011
102. ibid
103. ibid
104. ibid
105. <http://barrickbeyondborders.com/2009/09/barrick-by-the-numbers-how-communities-benefit/> as viewed on April 25, 2011
106. <http://www.mining-technology.com/projects/misima/> as viewed on April 25, 2011
107. <http://pubs.iied.org/pdfs/G00805.pdf> as viewed on April 25, 2011
108. ibid
109. ibid
110. ibid
111. [http://www.mining.bc.ca/facts\\_canada.htm](http://www.mining.bc.ca/facts_canada.htm) as viewed on May 20, 2011
112. ibid
113. [http://canadaonline.about.com/gi/o.htm?zi=1/XJ&zTi=1&sdn=canadaonline&cdn=newsissues&tm=10&gps=344\\_319\\_1362\\_521&f=10&tt=14&bt=1&bts=0&st=37&z=3A//mmsd.mms.nrcan.gc.ca/stat-stat/index-eng.aspx](http://canadaonline.about.com/gi/o.htm?zi=1/XJ&zTi=1&sdn=canadaonline&cdn=newsissues&tm=10&gps=344_319_1362_521&f=10&tt=14&bt=1&bts=0&st=37&z=3A//mmsd.mms.nrcan.gc.ca/stat-stat/index-eng.aspx) as viewed on May 20, 2011
114. [www.nrcan.gc.ca](http://www.nrcan.gc.ca) as viewed on May 20, 2011
115. Treaty rights include rights that exist by the way of agreements.
116. <http://www.fotw.net/flags/ca-fnat.htm> as viewed on May 20, 2011
117. Brian Slattery, 2007, *What are Aboriginal rights?*, Osgoode Hall Law School - York University ([http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=967493](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=967493) as viewed on May 21, 2011)
118. Irene Sosa and Karyn Keenan, 2001, *Impact benefit agreements between aboriginal communities and mining companies: Their use in Canada*, pg. 3-4
119. ibid
120. Anon, *Benefit sharing agreements in British Columbia: A Guide for First Nations, business and government*, Ecosystem based management working group, Victoria, pp-84
121. ibid
122. ibid
123. ibid
124. ibid
125. Anon, *Benefit sharing agreements in British Columbia: A guide for First Nations, business and government*, Ecosystem based management working group, Victoria, pp-95
126. [http://www.cbern.ca/research/projects/workspaces/cura\\_project/case\\_studies/impact\\_and\\_benefit\\_agreements/](http://www.cbern.ca/research/projects/workspaces/cura_project/case_studies/impact_and_benefit_agreements/) as viewed on 23rd may 2011
127. Anon, *Benefit sharing agreements in British Columbia: A guide for First Nations, business and government*, Ecosystem based management working group, Victoria, pp-2
128. Vance Langford, 1998, *The impact of aboriginal title on mineral rights agreements in Canada: Legal and commercial realities*, pp-12

129. Anon, *Benefit sharing agreements in British Columbia: A guide for First Nations, business and government*, Ecosystem based management working group, Victoria, pp-89
130. ibid
131. <http://arcticcircle.uconn.edu/SEEJ/voisey/inuit.html> as viewed on 23rd May 2011
132. ibid
133. Carolyn Fischer, 2007, *International Experience with Benefit-Sharing Instruments for Extractive Resources*, Resources For the Future, Washington, pg. 53
134. ibid
135. ibid
136. Damien Giurco et al, 2010, *Peak Minerals in Australia: A Review of changing impacts and benefits*, Institute for Sustainable Futures University of Technology, Sydney, pp-31
137. <http://www.dmp.wa.gov.au/1525.aspx> as viewed on 16th May 2010
138. ibid
139. [http://www.nt.gov.au/d/Minerals\\_Energy/index.cfm?header=Aboriginal Land Rights](http://www.nt.gov.au/d/Minerals_Energy/index.cfm?header=Aboriginal_Land_Rights) as viewed on May 16, 2011
140. [http://www.nlc.org.au/html/land\\_act.html](http://www.nlc.org.au/html/land_act.html) as viewed on May 16, 2011
141. [http://www.clc.org.au/Ourland/land\\_rights\\_act/Land\\_rights\\_act.html](http://www.clc.org.au/Ourland/land_rights_act/Land_rights_act.html) as viewed on May 16, 2011
142. Carolyn Fischer, May 2007, *International experience with benefit sharing instruments for extractive resources*, Resources for the Future, Washington, pg. 22
143. Ciaran O'Faircheallaigh, 2004, *Land, Rights, Laws: Issues of Native Title*, Australian Institute of Aboriginal and Torres Strait Islander Studies, pg. 2
144. [www.industry.gov.au/investorsguide](http://www.industry.gov.au/investorsguide) as viewed on May 16, 2011
145. <http://www.atns.net.au/extglossary.asp?GlossaryID=235> as viewed on May 17, 2011
146. Ciaran O'Faircheallaigh, 2004, *Land, Rights, Laws: Issues of Native Title*, Australian Institute of Aboriginal and Torres Strait Islander Studies, pg. 1
147. Ciaran O'Faircheallaigh, 2004, *Land, Rights, Laws: Issues of Native Title*, Australian Institute of Aboriginal and Torres Strait Islander Studies, pg. 8
148. Ciaran O'Faircheallaigh, 2003, *Implementing agreement between Indigenous people and resource developers in Australia and Canada*, Centre for Australian Public Sector Management, Australia, pg. 8,9
149. Ciaran O'Faircheallaigh, 2003, *Financial Models for Agreements Between Indigenous Peoples and Mining Companies*, Centre for Australian Public Sector Management, Australia, pg. 7-19
150. Ciaran O'Faircheallaigh, *Reflections on the Sharing of Benefits from Australian Impact Benefit Agreements (IBAs)*
151. Carolyn Fischer, 2007, *International Experience With Benefit-Sharing Instruments for Extractive Resources*, Resources For the Future, Washington DC, pg. 10-11
152. ibid
153. ibid
154. Carolyn Fischer, 2007, *International Experience With Benefit-Sharing Instruments for Extractive Resources*, Resources For the Future, Washington DC, pg. 12
155. ibid
156. ibid
157. Carolyn Fischer, 2007, *International Experience With Benefit-Sharing Instruments for Extractive Resources*, Resources For the Future, Washington DC, pg. 18
158. State direct financial interest is an arrangement where state has some stake in oil and gas fields, pipelines and onshore facilities.
159. Carolyn Fischer, 2007, *International Experience With Benefit-Sharing Instruments for Extractive Resources*, Resources For the Future, Washington DC, pg. 27
160. Anon, 2008, *National Mineral Policy 2008 (for non-fuel and non-coal minerals)*, Government of India, Ministry of Mines, Section 7.9, pg. 9
161. Anon, 2010, *Draft report of the working Group – 4: Guidelines for operating small deposits in scientific and efficient manner safeguarding vital environmental and ecological aspects*, Government of India, Ministry of Mines and Indian Bureau of Mines, Nagpur, pg. 26
162. Except for coal, lignite and sand for stowing.
163. Royalty from coal estimated at ₹6,000 crore and royalty for non-coal minerals was ₹4,470 crore.
164. For this calculation, value of mineral production is taken as value of only coal and major minerals.

## Box: Resource Rent Tax

1. [http://www.anz.com/edna/dictionary.aspx?action=content&content=resources\\_rent\\_tax](http://www.anz.com/edna/dictionary.aspx?action=content&content=resources_rent_tax) as viewed on June 2, 2011
2. <http://www.ato.gov.au/businesses/content.aspx?doc=/content/39230.htm&pc=001/003/117/001/001&mnu=44895&mfp=001&st=&cy=> as viewed on June 2, 2011
3. [http://www.anz.com/edna/dictionary.aspx?action=content&content=resources\\_rent\\_tax](http://www.anz.com/edna/dictionary.aspx?action=content&content=resources_rent_tax) as viewed on June 2, 2011
4. Anon, 2011, *Mineral Resource Rent Tax – Exposure Draft*, Deputy Prime Minister and Treasury Office, Australia, pg.13
5. *ibid*
6. [http://www.futuretax.gov.au/documents/attachments/factsheet\\_resource\\_taxation.pdf](http://www.futuretax.gov.au/documents/attachments/factsheet_resource_taxation.pdf) as viewed on June 2, 2011
7. <http://www.theage.com.au/business/henry-review-recommends-resource-rent-tax-20100121-moc5.html> as viewed on June 2, 2011

## Box: Corporate Social Responsibility (CSR)

1. Archie B Carroll, 1999, *Corporate Social Responsibility: Evolution of a Definitional Construct*, Business & Society, Sage Publications, pg. 268
2. Anon, 2009, *Corporate Social Responsibility Voluntary Guidelines 2009*, Ministry of Corporate Affairs, Government of India, New Delhi, pg.11
3. Anon, 2009, *Corporate Social Responsibility Voluntary Guidelines 2009*, Ministry of Corporate Affairs, Government of India, New Delhi, pg.13
4. <http://www.business-standard.com/india/news/mandatory-csr-spending-for-coal-mining-firms/433414/> as viewed on May 4, 2011
5. <http://blogs.forbes.com/csr/2011/02/28/india-forces-csr-on-companies/> as viewed on May 4, 2011
6. <http://www.business-standard.com/india/news/mandatory-csr-spending-for-coal-mining-firms/433414/> as viewed on May 4, 2011
7. *ibid*
8. *ibid*
9. <http://naveenpatnaik.com/news/Orissa-Government-to-set-up-Rs-200-crore-fund-for-peripheral-development/338.html> as viewed on March 23, 2011
10. <http://groups.yahoo.com/group/Jharkhand/message/669> as viewed on March 22, 2011
11. *ibid*

# List of abbreviations

ABA-Aboriginal Benefit Account	MRSF- Mineral Resource Stabilisation Fund
ABR-Aboriginal Benefit Reserve	NALCO- National Aluminium Company
AHF- Alberta Heritage Fund	NALCO- National Aluminium Company Limited
AMD- Atomic Mineral Directorate	NMDC- National Mineral Development Corporation
AML- Alluvial Mining Lease	NMF- National Mineral Fund
APF- Alaska Permanent Fund	NMRC- National Mineral Royalty Commission
CCEC- Central Coordination-cum-Empowered Committee	NMT- National Mining Tribunal
CIL- Coal India Limited	NOK- Norwegian Krone
CO- Carbon Monoxide	NREGA- Mahatma Gandhi National Rural Employment Guarantee Act, 2005
CSR- Corporate Social Responsibility	NSDF- National Sustainable Development Framework
CWP- Coal Worker's Pneumoconiosis	NTA- Native Title Act
DMF- District Mineral Foundation	NTA- Native Title Act
EL- Exploration Licence	NTRB- Native Title Representative Body
FPIC- Free Prior Informed Consent	OMC- Orissa Mining Corporation
GDP- Gross Domestic Product	OTML- Ok Tedi Mining Ltd
GMDC- Gujarat Mineral Development Corporation	PAP- Project Affected People
HCL- Hindustan Copper Limited	PAT- Profit After Tax
HDI- Human Development Index	PDA- Porgera Development Authority
HZL- Hindustan Zinc Limited	PJV- Porgera Joint Venture
IBM- Indian Bureau of Mines	PL- Prospecting Licence
IIBA- Inuit Impact Benefit Agreement	PNG- Papua New Guinea
ILUA- Indigenous Land Use agreement	PSDPL- PNG Sustainable Development Programme Limited
LCA- Land Claim Agreement	R&R- Resettlement and Rehabilitation
LGL- Lihir Gold Ltd	RP- Reconnaissance Permit
LIA- Labrador Inuit Association	RRT-Resource Rent Tax
MCDR- Mineral Conservation and Development Rules	RSMM- Rajasthan State Mines and Minerals Limited
MCR- Mineral Concession Rules	SCCL- The Singareni Collieries Company Limited
MDC- Mining Development Contract	SGL- Sesa Goa Limited
ML- Mining Lease	SMF- State Mineral Fund
MMDR- The Mines and Minerals (Development and Regulation) (MMDR) Act, 1948	SML-Special Mining Lease
MOIL Limited	SMRA- State Mining Regulatory Authority
MoM- Ministry of Mines	SSDF- State Sustainable Development Framework
MRE- Mining Royalty Equivalents	USD- United States Dollar
MRRT- Mineral Resource Rent Tax	

# List of Tables

Table 1.1: Royalty contribution of major Indian mining companies.....	6
Table 1.2: RCDB for companies with captive mines.....	7
Table 1.3: Tax burden of standalone mining companies .....	8
Table 1.4: Tax burden of companies with captive mines .....	8
Table 1.5: PAT analysis of standalone mining companies in India.....	17
Table 1.6: PAT analysis for companies with captive mines.....	17
Table 1.7: Production of minerals in PNG.....	18
Table 1.8: Top 50 mining districts and profit sharing provision.....	39
Table 1.9: Profit sharing provision and stand-alone mining companies* .....	42
Table 1.10: Profit sharing provision and companies with captive mines .....	42

# List of Graphs

Graph 1.1: Value of mineral production in India .....	3
Graph 1.2: Contribution of minerals to value .....	3
Graph 1.3: Employment in mining sector .....	5
Graph 1.4: Mineral-wise royalty .....	7
Graph 1.5: Value of mineral production in PNG .....	19
Graph 1.6: Ok Tedi mine compensations.....	21