

**Summary of the Report of the Expert Committee (REC) to Evaluate Feasibility Study Report and Scheme of Development of the Phulbari Coal Project, submitted by Messieurs Asia Energy Corporation, (Bangladesh) Pvt. Ltd. (AEC)<sup>1</sup>**

An expert committee, headed by Prof. Md. Nurul Islam, Director, Institute of Appropriate Technology, Bangladesh University of Engineering and Technology, was formed on 17/11/2005 by the Government of Bangladesh (GOB). The terms of reference of the Committee were as follows:

- a. To determine the acceptability of the facts and proposals, to analyze the technical factors and to make suggestions about taking the required steps about the environment, after meticulously examining and evaluating the Feasibility Study Report and Scheme of Development of the Phulbari Coal Project, submitted by Messieurs Asia Energy Corporation, (Bangladesh) Pvt. Ltd. (AEC).
- b. To make suggestions on appropriate methods of coal mining considering the geological conditions, underground water management and socioeconomic and environmental conditions.
- c. To identify the significant aspects of the Feasibility Study Report and Scheme of Development of the Phulbari Coal Project, submitted by Messieurs Asia Energy Corporation, (Bangladesh) Pvt. Ltd. (AEC).
- d. And, to make recommendations on relevant matters. (REC, pg..1)

**Different chapters of the report by the Committee:**

Chapter 1: Composition of the Committee, terms of reference and methodology.

Chapter 2: Analysis of the legal aspects of the Phulbari coal project; the legal aspects of the exploration and development of mining resources and foreign investment; the review of the contracts signed with BHP Minerals International Exploration, Inc. (BHP) and Asia Energy Corporation (Bangladesh), Pvt. Ltd. (AEC).

Chapter 3: The opinion of the Committee on the feasibility study and the scheme of development of the proposed Phulbari Coal Project.

Chapter 4: Observation of the Committee according to the terms of reference.

Chapter 5: Recommendations.

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<sup>1</sup> This summary is from the original Report of the Expert Committee (September 20, 2006; total pages 163). It consists of the main points summarized from the different chapters of the report. The sub-headings were chosen according to the content of the report. October 29, 2007.

## **Methodology of the Enquiry**

1. Evaluation of the facts and figures of the Feasibility Study Report and Scheme of Development of the Phulbari Coal Project, submitted by Messieurs Asia Energy Corporation, (Bangladesh) Pvt. Ltd. (AEC), and Environmental Impact Assessment Report (EIA) on the Phulbari Coal Project, prepared by SMEC for Asia Energy and other relevant materials.
2. The members of the Committee met 19 times between December 3, 2005 and September 20, 2006 to discuss the report submitted by the AEC.
3. The AEC authority presented and explained their report to the Committee on December 8 and 21, 2005.
4. In order to collect the necessary material for the Resettlement Survey, President of the Committee contacted Bangladesh Centre for Advanced Studies, a sub-contractor of SMEC.
5. President of the Committee discussed different aspects of the project with Mr. Md. Anwarul Islam, General Manager (Environment and Communication) of AEC on January 15, 2006.
6. President of the Committee discussed survey area and survey methodology with Mr. Md. Golam Jilani, team leader of the BCS field survey team on January 16, 2006.
7. A 9-member team led by the president of the Committee visited the proposed Phulbari coal mine area and Boropukuria coal mine on January 26, 2006. On this visit, the Committee held discussions with
  - a. Phulbari and Parbatipur government officials.
  - b. Boropukuria coal mine officials.
  - c. AEC representative Mr. Ahsan Habib (Dipu).
  - d. local people in Phulbari. The Committee exchanged views with 30 members chosen from 130 people from the local community randomly selected by the BCS survey questionnaire.
  - e. local journalists.
  - f. local people's representatives including 5 Union Council Chairpersons.

They also visited the information center of AEC and collected information sheets in Phulbari town.

8. The Committee also collected information on coalmines from the Internet.

## **Legal Aspects of the proposed Phulbari coal project**

- According to the Bangladesh Constitution, Article 143, all mineral resources are owned by the people of Bangladesh and the government of Bangladesh on behalf of the people.
- All mining activities are subject to the Mines and Mineral Resources (Control and Development) 1992 and Mining Rules, 1968, with subsequent amendments.
- The Mines and Minerals Rules 1968 ('Rules') were later amended in 1995.
- According to the Rules 29 (1), "Except as otherwise decided by the government, a license shall not be granted in respect of any area more than 800 hectares," p. 9. 'Rules' 41 (November 13, 1989): "No lease shall be granted in respect of any area more than 400 hectares for open pit mining or more than 800 hectares for underground mining save in case where special exemption is granted by the government." 'Rules' 41 (December 1995): "No lease shall be granted in respect of any area more than 800 hectares for open pit mining or more than 600 hectares for underground mining save in case where special exemption is granted by the government." (REC, Pp. 12-13).
- 'Rules' 31 stated about the license period as, "A license shall in the first instance be valid for 1 year." (REC, p. 10). 'Rules' 43 says, "The initial term of the lease shall not exceed 10 years in case of open pit mining and 20 years in case of underground mining." (REC, p. 13)
- 'Rules' 32 stated about license renewal as: "Subject to the satisfactory compliance of the terms and conditions of the license including the working obligations under rule 34, the licensing authority may renew the license for a period not exceeding 12 months at a time to enable the licensee to complete the exploration work: provided the licensee shall apply to the licensing authority in writing 60 days before the expiry of the license and the total period of exploration included the period under renewal shall not exceed 3 years.
- 'Rules' 39: To apply for a mining lease a company must satisfy different conditions, including "a bank guarantee of 3 percent of the estimated cost of the scheme."
- 'Rules' 3<sup>rd</sup> schedule (rules 36, 44): The royalty rate was determined at 20 percent "for coal include peat, coal dust and coal used on the work on the value at pit's mouth" (November 13, 1989).
- 'Rules' 11<sup>th</sup> schedule (rules 44, 55e): The royalty rate was determined for "underground mining 5 %, open pit mining 6%" (1995 SRO 232).
- According to 'Rules' 32, no application for mining lease was submitted within three years of 15/01/1995. Therefore, any preferential right for obtaining mining lease expired on 15/01/1998.

## **The contract signed with BHP on August 20, 1994**

- Area: "Area A located in Dinajpur and Jaipurhat 32 districts comprising an area of 5,090 hectares. "Area B located in Dinajpur, Jaipurhat, Rangpur and Bogra districts comprising an area of 2120 hectares." "Area C, located in Dinajpur, Rongpur, Bogra districts comprising an area of 6,810 hectares." Total (A, B, C): Approximately 14, 020 hectares.
- Mining lease period ('Rules' 43): The initial term of a lease shall not exceed 10 years in case of open pit mining and 20 years in case of underground mining.

- Assignment of mining lease: The leasee shall not, without the consent of the government, assign or attempt to assign the rights granted by this lease to any person other than a citizen of Bangladesh or a company incorporated in Bangladesh.
- Investment agreement (exhibit D):
  1. The investor will be allowed to import machinery and consumable items with 2.5% import duty. All other custom duty, import duty and other fees will be exempted.
  2. The investor will be allowed to export coal without any export fee and duty.
  3. The investor will be allowed to appoint any sub-contractor.
  4. The investor will be allowed to open foreign exchange bank account within and outside Bangladesh and to transfer money.
- Payment of royalty in cash: Investor shall pay to the government royalty at the rate of 6% of the sale value in US dollars at the stock pile at the pit's mouth. The government shall have the right to take its 6% royalty in kind (REC, p. 28).

### **Asia Energy: Problems with the Contract**

The Asia Energy Corporation Bangladesh Pvt. Ltd (AECBPL), a subsidiary of the Asia Energy Corporation Pvt. Ltd. (AECPL), Victoria, Australia, signed an agreement with BMD on 11/02/1999 with reference to an agreement between BHP and the GOB on 20/08/1994. It was a transfer of licensing from BHP to AEC. A license, however, is not a legally transferable right or an ownership right.

Date of Gazette Notification: According to 'Rules' 15, the agreement between AEC and BMD on 11/02/1998 was supposed to be published in government gazette notification but it was not done till January 2006. It was first published on June 1, 2006 in vol. 6, pg. 643 of the gazette.

Asia Energy PLC, UK was incorporated as a Public Limited Company on 26 September 2003. The company purchased Asia Energy Corporation Pvt. Limited (AECPL) on 18 December 2003 and effectively commenced trading from this date. Asia Energy Corporation Pvt. Limited (AECPL), Australia carries on the business of mineral exploration and development of the Phulbari Coal Project in Bangladesh. The company will continue in this activity. The company has successfully admitted to the London Stock Exchange Alternative Investment Market (AIM) on 19 April 2004 (Asia Energy PLC Annual Report 2005).

AEPLC holds 100% of the equity share capital and controls 100% of voting rights of the following undertakings:

- a. AECPL incorporated in Australia and operates in Australia.
- b. Asia Energy Corporation (Bangladesh) Pvt. Ltd. - incorporated in Australia and operates in Bangladesh (indirectly through Asia Energy Corporation Pvt. Ltd.
- c. Asia Energy (Bangladesh) Private Limited (AEPBL) (formally Pan Asian Corporation Limited) incorporated and operates in Bangladesh (indirectly held through Asia Energy Corporation Pvt. Ltd.).

**Area:** According to BMD, AEC got the license of Area B (1,921 hectares) and Area G (7,273 hectares). This was later renewed. With reference to the application submitted by AEC on November 16, 2000, the GOB granted to transform Area B (1,921 hectares) from exploration license into mining lease on April 2004. AEC applied to transform other areas for the same purpose, including Areas G (1,447 hectare) and H (2,112 hectares). They also applied for exploration license for the adjacent Area I (10,371 hectares) on 11/05/2004 and Area T (1,775 hectares) on 27/04/2005 for coal only. Moreover, AEC had also applied for a license to explore mineral resources other than coal from areas J to Q (each of 4000 hectares) on 13/06/2004. All this remains undecided till now.

**Table A: Land area for lease and license (REC, p. 44):**

Particulars	Area (ha)	Area (Sq. km)
1. Coal mining lease area 'B' (BHP Contract: 11/C-94, 11-2-98)	1,921	19.21
2. Exploration license Area 'H' Coal Mining Lease under application (AECBPL)	2,112	21.12
3. Exploration License Area 'G' for mine development and infrastructure, coal mining lease under application	1,447	14.47
4. Exploration License Area 'I' for mine development and extension of Phulbari Coal basin under application (AECBPL)	10,371	103.71
5. Exploration License Area 'T' under application (AECBPL)	1,775	17.75
6. Exploration licenses 'J' to 'G' covering various potential co-products from overburden, under application (AECBPL)	Over-existing project area	
7. Coal mining lease area 'U' under application (AECBPL)	286	2.86
Total area for approved coal license and coal lease and new application areas	17,912	179.12

**Bank Guarantee:** AECBPL submitted a development scheme on October 2, 2005 according to the Mining Rules 39. But according to Rules 39(c), they were supposed to deposit 3% of the total projected cost, which they did not. AEC plans to show that the cost of scheme development was

to be \$917 million (pp. 22-27). Therefore, 3% Bank Guarantee comes to \$27.51 million. Without Bank Guarantee this development plan cannot be accepted.

**Company without Experience:** According to the information presented by Asia Energy on 21/12/2005, none of the Asia Energy companies (AEPLC, AECPL, and AECBPL) have any experience in mining and management of a project like the Phulbari Coal Project. The proposed Phulbari Coal Project is a long-term development activity. It will take approximately 30-35 years to implement the project and another 10-15 years to tackle the environmental issues after that. A new company like AEC is not capable of doing that. Moreover, in legal terms, it did not satisfy many conditions including depositing bank guarantee.

Correspondences with BHP took place at 3 addresses, one in Bangladesh (BHP Minerals International Exploration Inc. Road 4, House 9, Baridhara, Dhaka, Bangladesh) and the other two in Malaysia (BHP Minerals International Exploration Inc. 207 Jalan Tun Razak, 50400 Kuala Lumpur, Malaysia) and the USA (BHP Minerals International Exploration Inc. 550 California St., San Francisco, California, USA), respectively.

**Royalty and mysterious changes:** According to the 1967 Mining Rules (revised in 1968 and gazetted in 1987, 1989), the rate of royalty of coal value in pit's mouth was fixed at 20%. Following this rate, the Bureau of Mineral Development (BMD) signed an agreement with Petrobangla for Boropukuria coalmine on 10/07/1994. Yet, on 20/08/1994, only a month and ten days after having signed the lease, the BMD signed another agreement with BHP (Australia) for coal mining in adjacent areas (Phulbari region) at the rate 6% royalty. This was completely contrary to the existing rules, and therefore, illegal and against national interest. However, the government revised the royalty rate from 20% to 6% for open pit mining later in 1995.

**Other benefits:** Although there was no such provision under the Mines and Minerals Rules of 1968 and 1992, the BHP was also given tax exemption and other facilities. According to the Investment Agreement (6b), 9 years of tax holiday benefit is given from the beginning of commercial production. But the existing rules do not permit beyond 6 years. Existing rules allow maximum 80% of inter company loan to cover capital expenditure. However, Investment Agreement (7a) allowed for 90%.

### **Feasibility study and Scheme of development of Phulbari Coal Project by AEC**

The feasibility study has 23 chapters and 4 appendices (total 674 pages). Even at the beginning of the feasibility study and the scheme of development, the AEC claimed that they had received the mining lease of 24 months. However, this is in violation of Article 46(1) of Mining Rules 39, and therefore, illegal and invalid (REC, p. 42). Asia Energy concludes that mine development will be open pit because this is the only safe and economical way to extract the coal from the Phulbari coal deposit.

### **Significant aspects of the social environment of the project area**

- a. 3,600 families (18.6%) live in the Phulbari Township and the rest 81.7% (15,755 families) live in the various villages.
- b. In the survey region, 51.5 % of the population is male while 48.5% is female.

- c. About 9% (1,742 families) are ethnic minorities.
- d. Most families use tube-well as source of household water. Water from the ponds or rivers is not frequently used.
- e. More than 50% of the population does not use proper sanitation.
- f. There are 213 mosques, 174 temples and 19 churches in the survey area.
- g. Also, there is a total of 785 government, community, family and personal graveyards.
- h. There are 26 and 8 archeological sites from (1765-1947 AD) and (400-1200 AD), respectively.
- i. There are 25 NGOs and 14 CBOs in the area.

## **Royalty**

According to the AEC report (Tables 22.5 and 22.6), calculating the operating cost, the total amount of royalty given to the government and others was shown as \$1,649 million. However, the amount of royalty on pages 22-24 of the same report was shown as \$1,240 million (by deducting delivery cost to the port), which is not consistent with the existing rules (REC, p. 97).

## **Displacement of People**

The local population in the Phulbari area will lose their habitat and agricultural land in exchange of compensation. Because of the density of the population, there is no way that one can buy the same amount of land locally or in other parts of Bangladesh with the compensation money. During the field visit, the local people were concerned that they will not be able to buy the same amount of agricultural land even if they receive compensation for their land and property. The Committee also realizes that it is difficult to quantify the mental suffering and uncertainty that these people have in addition to the loss of agricultural production.

Although the AEC report discusses at length the issue of compensation, no estimate of the loss of crops is given. According to the Expert Committee calculation, the total loss of crops is estimated to be \$783 million, which amounts to 63% of the calculated royalty (\$1,240 million).

Pages 22-28 of the AEC report discuss resettlement and development issues. However, the details of how many directly affected people will receive what amount of compensation and how much is going to be spent on infrastructure are not specified in the report. This kind of omission generates suspicion about AEC's plans for public consultation and disclosure (REC, p. 97).

## **Disclosure and Publications**

On 27/01/2006 while visiting the mining area, the Expert Committee collected the AEC booklets and information sheets and found the following:

- There is no date of publication of the booklet on the Phulbari coal project. Also, no titles were given for the pictures presented there and some unnecessary untitled pictures have also been included.
- Although the specific area of the coal basin and the amount of coal reserve is mentioned, there is no mention of the amount of extractable coal. How much extra land is needed for rehabilitation and the total amount of land needed for the project is also not specified.
- The report describes AEC's plans for resettlement and compensation for land, housing and business. It also mentions the establishment of a development fund for the affected people, particularly the farmers who will lose their land. However, no plans are mentioned for the landless farmers who are the majority in the area.
- According to an information sheet published for the local people in August 2005, the pits created after coal extraction will be gradually filled by the soil removed during the extraction. The land will be brought back to its normal condition and a sweet water lake will be created which can be used for beautification, recreation and water conservation. However, according to the AEC report submitted to the government, the resettled land cannot come back to its previous condition and be fit for agriculture.

### **Land and open pit mining**

According to Article 41 of the Rules, a maximum of 400 hectares of land can be leased out for open pit mining. However, until 2005, even in the United States, a maximum of 160 acres (65 ha) of land could be allotted for open pit mining. Later, it was increased to 960 acres according to the Energy Policy Act 2005. In 2004, the population density of Bangladesh and the United States has been 1,079 and 32 per square kilometer, respectively (World Bank 2005). In this perspective, with relatively low technological expertise and high population density there is no point in leasing out "with special consideration" more than 400 hectares of land for open pit mining.

It should be mentioned that on January 15, 1998, the license period for BHP activities in Block B had expired. Transferring the license to Asia Energy on February 2, 1998, therefore, cannot be valid and is therefore illegal.

Arguing in favor of open pit mining, the AEC report claims that extracting more coal with minimum risk will generate more profit. But a huge amount of water (7000 liter/second) needs to be pumped out to keep the mine area dry. Due to this, about 67 square kilometer area will be directly and 247 square kilometer area (outside the mining area) will be indirectly affected. Proposing open pit mining, AEC has referred to Australia, Germany and Indonesia as successful examples. The population density of these mining regions is very low relative to the Phulbari area in Bangladesh. For example, the population density (per square kilometer) of Australia: 3, USA: 32, Indonesia: 120, China: 139. Germany: 237, India: 363, and Bangladesh: 1079. Except for Singapore, a city-state, Bangladesh is the most densely populated country. This should be seriously considered when deciding the mining method appropriate for Bangladesh.

**Table B: Land use pattern in coal mining area:**

Particulars	Area (ha)	Percentage
1. Agricultural land (2-3 crops per year)	6.135	78.1

2. Settlement Area	1,176	15.1
3. Forest Area	375	4.8
4. Water bodies	178	2.1
Total	7,864	100.0

The coal mining area shown in the table A (78.54 sq km) is only a part of the total area that AEC claimed for total operation (179.12 sq km). However, they failed to show the number of families that will be directly affected by the project. The actual number of affected people for this area will be 1,29,417 instead of 40,000 as claimed by the AEC (REC, p. 47). Also, the number of affected people will become larger as the population increases over time. Moreover, due to pumping out underground water for open pit mining, about 314 square kilometer area will be affected. The ground water level will also deplete in the process. Due to this, the total affected population will be 2,20,000. It should be mentioned that AEC does not have any expertise on ground water management. In the feasibility study, the company did not evaluate the de-watering and the effect of re-injection of water in the area (REC, p. 141)

The proposed open cut operation will use hydraulic excavators and trucks to mine the coal and waste. Most of the run-of-mine (ROM) coal is washed to produce one of three main marketable products; a low ash metallurgical coal; an export thermal coal and a domestic thermal coal (REC, 55).

In India current depth of open pit mining is restricted to about 100 meters. In Phulbari, coal seams are relatively deep ranging between 200-330 meters (656-1028 ft.).

### **Risks of open pit mining: A Study**

Because of many uncertainties and shortcoming of the knowledge related to the project, the Phulbari Coal Project can be considered a high risk venture with respect to the following (Reazuddin, M. A White Paper Describing Environmental Implications of the Phulbari Coal Project, submitted by Mohammad Reazuddin, Director (Technical-1), Department of Environment, 16 September, 2006):

1. The extent and magnitude of dewatering effects are uncertain –the effects may be long term or may be short term. Grave consequences may arise due to tremendous dewatering activities of the project.
2. Chance of arsenic (As) removal in ground is also a risky and uncertain issue. According to “Reduction theory,” the chance of arsenic release is significant, but if “Oxidation theory” proves true, ground water arsenic contamination will emerge as an environmental disaster.
3. Because of the dewatering effect, hand tube-well will not work. If any problems happen to water supply networks or if potable water is contaminated with any AMD/hazardous chemicals, there will be a human catastrophe.
4. If mitigation measures fail or are inadequate, surface and ground water could be contaminated for the long run in the whole basin.
5. Overburden dump will also be an acute problem. If it is considered that proper measures will be taken during the lifetime of the project, uncertainties lie in the future about strict

management measures of the overburden dumping area. Once the topsoil capsule is removed, the genie will be out of the bottle.

6. A high risk of social unrest and conflict is involved in the relocation of about a million people.
7. Uncertainty lies with the cost and management of the potable and irrigation water supply to the affected areas as well as the mining areas after decommissioning of the project.

## **Public Consultation**

Chapter 5 of Volume 4 of the EIA report of the AEC includes the experiences of the stakeholders. Although the report claims to include their names in Appendix B, no list of names was found in the report. Moreover, only designations of officials were listed in the Appendices A and B without mentioning their names. The expert committee found some names with official designation listed in Appendix B who were not actually consulted. The President of the Expert Committee is one of them.

Talking to the local people, the Committee members found out that the Asia Energy surveyors wrote down information and opinion of the locals with pencil while the form was written in English. The Committee also found that the local population is suspicious about whether their opinion against the coalmine has been accurately reported by the surveyors. Also, the AEC claims in their report (pp. 19-23) that the majority of the local population is supportive of the proposed coal project . However, during the field visit and consultation with the local people the Committee members felt that the impression given in the AEC report is far from accurate. The majority of the local community with whom the Committee exchanged views was against the Phulbari coal project.