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The authorities of the Barapukuria Coal Mine Company (BCMC) have rejected the feasibility study report of the Institute of Water Modelling (IWM) on open-pit mining at Barapukuria North, as it did not match the study's "terms of reference (TOR)". "The study did not reflect the impact of open-pit mining on the groundwater level as a result of dewatering, irrigation and supply of drinking and industrial water. We need a further detailed report," a senior IWM official told The Independent on Monday.

With the aim of opening up the northern part of the Barapukuria coalfield on a "small scale", the energy ministry had launched the initiative 10 years ago. To endorse the plan, it formed different committees and completed two studies, but failed to reach any conclusion. In its third attempt, it engaged the IWM to complete water modelling to preclude any controversy over the method of coal extraction.

"This study is not enough to assess the impact of open-pit mining as it is a highly technical issue. Once again, we want to complete a geo-technical feasibility study before taking any decision on open-pit mining in this area," Petrobangla's former chairman Md. Mosharrof Hossain, who is the coordinator of the government monitoring committee that guided the IWM's survey, told The Independent.

"We can go in for open-pit mining in the northern part of the Barapukuria coalfield, subject to the technical feasibility study on mining issues and the economic viability of water pumping with respect to biodiversity and ecological

stress on food production and their impact on the gross domestic product (GDP). Otherwise, how can we assess the profit and loss of a project? The study has failed to discuss these aspects," he added.

According to Petrobangla, it was mentioned in the TOR that the study, covering an area of 2.81 sq. km, would assess the impact on the groundwater level as a result of dewatering, irrigation and supply of drinking and industrial water. It would find out possible remedial measures for underground sustainability through different opinion studies and recommend developing mine water management systems. "But the report did not touch on the irrigation and crop issues of the affected areas, which have a great impact on mine design," an official said.

Though the IWM report said an area of some 560 sq. km of Barapukuria would be impacted if the government decides to open Barapukuria North for open-pit mining and the water table of the areas would go down from seven metres to more than 30 metres at different points, but to make it operational, it would require de-watering from 400 million cubic metres (mmc) to 232 mmc every year.

"The IWM report gave us some sort of relief, as we found the water flow to be almost half of what we had assumed. But a geo-technical issue is a must. After that, we will start the other related task," Mosharrof Hossain said.

Bangladesh has five coalfields with around 2.55 billion tonnes of reserves, but has been unable to extract the mineral since a national coal policy has not been finalised yet. The Barapukuria coalfield has reserves of around 389 million tonnes, but only 10 to 12 per cent of this can be extracted with the underground method.

The report said over 90 per cent of the total reserves can be extracted through open-pit mining. Underground mining can produce less than 25 per cent. The northern part has estimated

reserves of 135 million tonnes of coal.
“The surface of the Barapukuria
coal seam has started at the level of 118 metres. It gradually grows in depth up to 503 metres,” geologist Dr Mushfiqur Rahman told the Independent.
The report of the experts' committee said the coal seam deposited 200 metres under the surface would be extracted through the open-pit method. The underground mining method would be chosen for those deposits when that depth is more than 200 metres.