

## Risk Assessment, Disaster Management & Readiness

Hindalco has developed a comprehensive risk management policy for all its facilities which is authorized by the Risk Management Committee (of the company). This policy forms the backbone of its risk management framework and institutionalises a holistic risk management approach encompassing operations such as mining, production, energy generation and waste disposal, while ensuring the health and safety of the employees, procurement of resources and community relations. The risk management process is based on three main steps



**FIGURE-1**  
**CORPORATE RISK MANAGEMENT PROCESS**

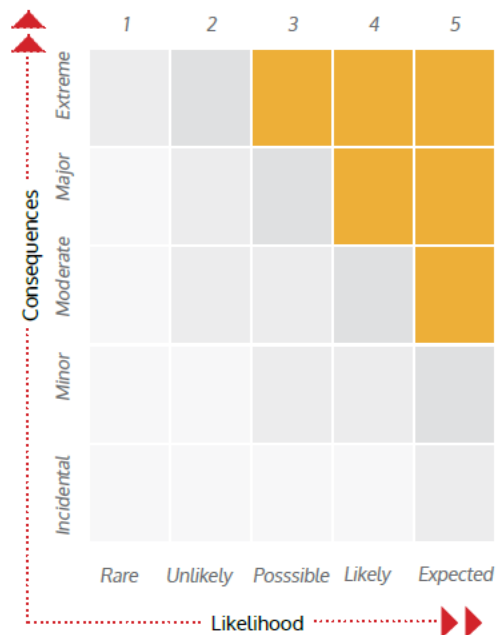
Responsibility for risk management is percolated down the line through a well-designed governance structure. The site-level risk teams help understand the relevant operational challenges and identify operational risks. The risk management framework is reviewed periodically by the senior management, thus ensuring a robust risk reviewing framework.

The risk evaluation methodology is based on gauging the likelihood of a risk event and the severity of its impact. Risk reporting is facilitated by a set of well-chosen leading and lagging risk indicators as shown in **Figure-1**.

### Risk Assessment of Maliparbat Bauxite Mine

Risk assessment and safety management are necessarily required for the mine for control of accidents and prevention of disasters. Risk analysis involves the identification of possible accidents / hazards which may happen in the mine during mining operation for undertaking risk / safety management thereafter. Risk involvements in the mining operation are briefed as follows:

- Mining operation produces dust & fumes which may jeopardize human health if inhaled in large quantities;
- Blasting may (a) damage the buildings and structures due to high ground vibrations and (b) damage to the surrounding area due to the impact/ piercing of fly rock;



### **RISK INDICATORS AND IDENTIFICATION PROCEDURE**

- Blasting may (a) damage structures due to high ground vibrations and (b) damage to the surrounding area due to the impact/ piercing of fly rock;
- Accident may happen on the road causing injury to animals due to human errors such as (a) improper over taking, high speed, (b) poor road construction and (c) unfit vehicles having defective tyres, poor braking, poor or no headlights, etc.;
- Disasters may happen due to thunders while working in the mine;

### **Safety Management**

Safety management system creates mechanism of behaviour and decision making for prevention of dangerous events and accidents. Keeping in view the above risk analysis, HIL's safety management practices will be as follows:

- Mining will be carried out as per the Approved of Scheme of Mining;
- Mining operation will be undertaken by the qualified and experienced persons as per MMR,1961;
- Safety training will be provided to the employees / workers to identify and minimize the risk;
- The duties and responsibilities at each level will be identified, qualified and fixed;
- Safety consciousness will be inculcated and practiced to prevent accidents during various mining operations;
- Working condition of the mine will be improved by changing the technology suitably;
- Adequate measures will be undertaken for overcoming the accidents mostly during transportation, blasting, machine operation etc.;
- Safety equipment's like helmet, safety belt, safety shoes, goggles, earmuff / plug, leather/ rubber hand gloves etc. will be provided to the workers as per the need;
- Plan & sections will be scrutinized by all the senior executives to identify the potentially dangerous situations;
- The mine will have integrated approach for total health care. Occupational health services (including periodical medical examination of the workers) will be functioned essentially to identify and treat the respiratory diseases such as

chronic bronchitis and pneumoconiosis which normally develops if air borne dust is inhaled in large quantities; and

- Width and gradient of the road will be properly maintained with the provision of road divider, speed breaker, traffic signs, and traffic instructions to prevent the road accidents.