



Mineral Development Policy May 2017

Royal Government of Bhutan



དཔལ་ལྷན་འབྲུག་གཞུང་ བསྟན་ཀླུ་ལྷན་ཁག།
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བསྟན་ཀླུ་ལྷན་པོ།
MINISTER

Forward

The Ministry of Economic Affairs is pleased to announce the Mineral Development Policy (MDP) 2017 of the Royal Government. The policy envisages the mining sector to play an important role in the future growth of the economy and in meeting our national goal of economic self-reliance. The policy will promote modern scientific mining; in-country value addition; improved environmental stewardship; better mineral management; progressive fiscal regime; benefits sharing and adoption of global and industry best practices.

The policy also puts in perspective the key reform measures and institutional restructuring to be undertaken such as the amendment of the Mines and Minerals Management Act of 1995; adoption of the relevant Rules, Regulations and Guidelines; setting up of an independent and autonomous Mining Regulatory Authority and industry promotion mandate. To optimize mineral resource management, mineral resources will be categorized as: strategic mineral, industrial mineral and construction material.

Mining activities, besides contributing revenue to the government and providing employment opportunities, generates economic activity and provides development opportunities to the local communities. Minerals also form the basis of industrialization and economic diversification. Recognizing this, the Royal government of Bhutan has identified mining as one of the five jewels of the economy alongside hydropower, tourism, cottage and small industries and agriculture.

The policy will also bring about major changes in public participation, decision making and benefit sharing with local communities. Social risk studies, assessment, management and mitigation plans are mandated by the policy and such studies would help the stakeholders in making informed decisions.


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ACRONYMS

AETR	Average Effective Tax Rate
CDA	Community Development Agreement
CDF	Community Development Fund
DGM	Department of Geology and Mines
DRC	Department of Revenue and Customs
EMMP	Environment Management and Mitigation Plan
ESRMMP	Environment and Social Risk Management and Mitigation Plan
FDI	Foreign Direct Investment
MCRP	Mine Closure and Reclamation Plan
MMMA	Mines and Minerals Management Act, 1995
MMMR	Mines and Minerals Management Regulations, 2002
MoLHR	Ministry of Labour and Human Resources
MP	Mine Plan
MRA	Mining Regulatory Authority
MRF	Mine Reclamation Fund
NSB	National Statistic Bureau
RGoB	Royal Government of Bhutan
SRMMP	Social Risk Management and Mitigation Plan

DEFINITIONS

1. “**Average Effective Tax Rate**” or “**AETR**” is the Government Revenues received from an investment divided by the Net Cash Flow over the life of investment. The AETR may be calculated undiscounted or on a Net Present Value basis with government revenues and cash flow discounted at the government’s discount rate.
2. “**Captive mine**” means a mine leased to the owner/promoter of a processing industry for the sole purpose of supplying raw material to that industry.
3. “**Community Development Agreement**” or “**CDA**” means an agreement signed by duly appointed representatives of the affected community, the MRA and the mining operator to formalize any understandings regarding benefits for the affected communities.
4. “**Community Development Fund**” or “**CDF**” means a fund contributed by mining leaseholders to finance the implementation of the activities agreed in the Community Development Agreement to support affected community development.
5. “**Intergenerational equity**” in terms of minerals, being exhaustible in nature, means to prescribe various measures to invest the mineral resources cautiously and in productive capacity bequeathing future generation with direct and indirect benefits.
6. “**Leaseholder**” means the mining leaseholder.
7. “**Mine**” means an opening or excavation in the ground for the purpose of extracting ore, coal, precious stones, etc., encapsulating quarry, which shall literally mean extraction of construction materials.
8. “**Mineral**” means any substance occurring naturally in or on the earth and having formed by or subject to a geological process and which can be obtained from the earth by digging, drilling, dredging, quarrying or other mining operations.

9. “**Mineral Development**” means any activity related to the exploration for or winning and working of minerals and construction materials, including tipping of spoil and ancillary operations such as the use of processing plant.
10. “**Mineral Fiscal Regime**” means all the fiscal instruments that apply to the mining sector.
11. “**Mining sector**” includes the mining and processing of minerals and the quarrying of construction materials.
12. “**Ministry**” means the Ministry of Economic Affairs
13. “**Progressive fiscal instrument**” means a rate of return tax or an excess profits tax or a royalty with a variable rate.
14. “**Reclamation**” means removal of any unwanted structures and equipments used during the operation of the mine and stabilization of dumps or impoundments and restoration of the surface of the lease area to natural or economically usable state in line with the final MCRP.
15. “**The Policy**” means the Mineral Development Policy.
16. “**Value addition**” means products of mineral beneficiation and processing covering the whole range of processes from basic ore dressing, such as crushing and screening, through to the manufacturing of semi-final/final consumer goods or chemically altered products.

1. Rationale

The objective of the policy is to maximize wealth creation in the Bhutanese economy which also entails full employment. The Policy shall contribute to the promotion, development and growth potential of the businesses as well as ensure sustainability and welfare for the people. Since minerals form the basis for industrialization and economic diversification, and also are necessary for the development of infrastructure and new industrial products, the mining sector has been categorized as one of the five jewels of the country's economy. Profitable mining businesses can generate new economic growth and provide positive local, regional and national benefits.

Geological mapping and mineral exploration is relatively new and recent in the country. As a result, there is potential to discover economic mineral deposits and make the country an attractive place for mineral industry.

For the industry to grow and become important there has to be a targeted long-term focus on knowledge, skills and expertise, innovation, and technology uptake. The Policy envisages development of an environmentally friendly and socially responsible mineral industry that contributes to mutually beneficial co-existence with local communities and other industries in pursuit of the overall development philosophy of the country, the GNH. The Policy will be the basis for responsible and growth oriented mineral industry.

Vision

“A profitable, sustainable, scientific, environmentally friendly, socially responsible mineral industry with strong value creation and growth”

Mission

To be among the most environment friendly mineral industry through scientific mineral development and in consonance with national social and economic policies while seeking innovative and long-term technological solutions for a forward looking industry.

Objectives

- i. A profitable mineral industry with strong value-creation and growth.
- ii. An environmentally friendly and socially responsible mineral industry.
- iii. Promote intergenerational equity through scaling up the global value chain.
- iv. Enhance mapping of mineral deposits, access to mineral information and better resource planning.
- v. Promote institutional development of mineral agencies.
- vi. Promote broad based ownership of mineral resources.
- vii. Ensure transparency and accountability in administrative procedures at all levels.
- viii. Ensure availability of construction materials in the country.

2. Institutional Arrangements

There shall be by law, clear delineation of policy and regulatory functions to enable independence and autonomy of functions and avoidance of conflict of interest between promotional and regulatory roles. The MRA shall be established as an independent agency to regulate the mines.

2.1. The Ministry

2.1.1 The Ministry shall be responsible:

- (1) for all policy and promotional functions related to mining;
- (2) to issue and administer permits for prospecting and exploration;
- (3) to assess and decide on the lease of mines; and
- (4) to propose and periodically revise, the royalty and mineral rent and establish the applicable fees and charges.

2.2. The MRA

2.2.1. The MRA shall be responsible:

- (1) to lease and regulate all mining and related activities;
- (2) to levy and collect royalty, mineral rent, surface rent, fees and applicable charges;

- (3) for oversight and management of MRF and in ensuring mine reclamation; and
- (4) to issue and administer permits for surface collection of minerals, sand and stones.

3. Leasing and Mineral Rights

3.1. Classification of Minerals:

For the purpose of granting of mineral rights, minerals shall be classified as follows:

- 3.1.1. Strategic Minerals: Strategic minerals shall be those minerals that have wider implications on the economy in terms of having any one of the following characteristics:
- (1) scarce and essential for domestic industries; or
 - (2) rare and high value minerals, and those minerals with security implication.

The Ministry shall review and update the list of strategic minerals periodically based on industries that exist as well as the potential to develop other manufacturing capabilities and define minerals required for these industries.

- 3.1.2. Industrial Minerals: Industrial minerals shall be those minerals used as raw materials in the mineral processing industries.

- 3.1.3. Construction Materials: Construction materials shall mean sand, stones, gravel and low-grade minerals used for building and construction purposes.

3.2. Granting of Prospecting and Exploration Permit and Mining Lease

- 3.2.1. Any Bhutanese national fulfilling the required criteria shall be eligible to obtain prospecting and exploration permit and mining lease. The required technical and financial eligibility criteria shall be set in accordance with the size and type of mineral deposits and mines, and the activity.

- 3.2.2. The grant of prospecting and exploration permits shall be governed by establishing adequate provisions in the law.
- 3.2.3. The lease of mines to FDI companies shall be subject to the fulfillment of the requirements under the FDI policy, its regulations and other relevant Acts and regulations and must be for a mineral processing industry.
- 3.2.4. Notwithstanding section 3.1.2 on Industrial Mineral of this Policy, allocation of all strategic minerals shall be the prerogative of the RGoB.
- 3.2.5. All mining rights of mineral deposits proven by DGM shall be allocated based on allocation framework developed by the Ministry.
- 3.2.6. Priority allocation of mines shall be as captive to the manufacturing industries. The captive mines must solely be used for that industry until it appears otherwise by quality of the mineral.
- 3.2.7. The lease and permits for mineral development shall be of the following category:
- (1) Prospecting Permit: The permit provides right to physically search for the proposed minerals, fossils, precious metals or mineral specimens with use of handheld tools only.
 - (2) Exploration Permit: The permit provides right to explore for the proposed minerals within the permitted area to determine the location, extent and socio-economic viability of the mineral deposit for exploitation.
 - (3) Mining Lease: The lease provides right to extract and process the intended minerals and or construction materials from within the leased area.
 - (4) Collection Permit: The permit provides right for surface collection of proposed sand, stones or minerals from the permitted area.

3.3. Standards of Prospecting and Exploration permits

- 3.3.1. A prospecting permit holder shall have the priority right to apply for exploration permit of the permissible mineral discovered within the prospecting area. However, this right shall be exercised within a year from the date of completion of prospecting and subject to submission of prospecting report to the department.
- 3.3.2. An exploration permit holder shall have the priority right to apply for mining of the permissible mineral explored. However, this right shall be exercised within five years from the date of completion of exploration and subject to submission of exploration report to the department and their intention to take it further.
- 3.3.3. The exploration permit holder shall submit minimum annual expenditure incurred in exploration activities.
- 3.3.4. To avoid speculation and land banking, permits obtained for prospecting and exploration shall be used for the purpose intended, if not the same shall be forfeited.
- 3.3.5. Accidental discovery of non-strategic minerals beside the intended minerals may be permitted for further exploration subject to approval of the Ministry.
- 3.3.6. Accidental discovery of strategic minerals shall be reported to the Ministry. Under such cases, appropriate compensation schemes or a mechanism shall be devised for collaborative development of the deposits.
- 3.3.7. Accidental discovery of fossil specimens and gemstones shall be reported to the Ministry. Appropriate compensation shall be devised to reward the finding.

3.4. Standards of Mining Lease

- 3.4.1. All clearances obtained, except for the environmental clearance, shall be for the life of the mine.
- 3.4.2. The lease tenure shall be issued for the expected economic life of the mine up to a maximum of thirty years.
- 3.4.3. Lease renewals shall be based on past performance and compliance with the requirements of the mining law and bylaws.
- 3.4.4. A lease can only be transferred or sold to other party with prior approval of the competent authority and after payment of applicable fees.
- 3.4.5. Subject to meeting the terms and conditions for the lease renewal, the lease may be renewed with the new lease tenure determined by the expected economic life of the mine up to a maximum of thirty years.
- 3.4.6. A mining area may be extended if additional feasible mineral reserves are identified which is contiguous to the approved boundary.
- 3.4.7. The lease executed shall apply to mining of the stated minerals only. However, if there is occurrence of some other minerals of value, the principle of optimization of minerals shall be followed. Further, such occurrences shall be notified to Ministry for approval of the mining right and imposition of royalty.
- 3.4.8. Noncompliance shall be subject to progressive penalties, and forfeiture shall be the ultimate resort.

3.5. Standards of Surface Collection

- 3.5.1. Surface collection shall be confined to broken boulders and not include extraction of insitu rocks.

3.5.2. The permit for surface collection shall be subject to feasibility and Forestry and Environmental clearances.

3.6. Optimization of Minerals

3.6.1. The MRA may explore for export of low grade minerals in primary form, including mineral rejects, through canalization so as to maximize the benefit.

3.6.2. The MRA shall promote optimization through improvement in mining methods, beneficiation, blending and utilization of low grade ore and rejects and recovery of associated minerals.

3.7. Value Addition

3.7.1. A resource-based industrialization shall be encouraged for all viable and potential minerals.

3.7.2. Notwithstanding section 3.7.1, the export of minerals in primary form shall be discouraged. However, those minerals which cannot be used as a raw material for an industry or supply to other industries in the country as additive may be permitted for export.

3.7.3. The RGoB shall facilitate and encourage development of mineral value chain to promote economic growth and achieve intergenerational equity.

3.7.4. The RGoB shall levy lower royalty for in-country value addition and use.

3.8. Broad Based Ownership

3.8.1. The RGoB shall encourage and promote broad based ownership in mining through enabling measures. The Ministry shall adopt a framework for mining companies that need to have broad based ownership.

3.9. Transparency and Information Sharing

3.9.1. The Ministry and MRA shall provide full disclosure barring national security considerations in regard to decisions made for execution of leases, agreements and contracts in their respective area.

3.9.2. The Ministry and MRA shall be responsible for maintaining records and disseminating information pertaining to mineral and mining sector in their respective area.

3.9.3. The NSB, MoLHR and DRC shall report mining statistical information in their publications.

3.10. Professional Capacity

3.10.1. The mines shall be operated with best possible methods and leaseholders shall recruit professionals and technically competent mining personals to manage the mines proficiently.

3.10.2. The RGoB shall allow employment of expatriate professionals wherever local capacity is not available.

3.10.3. Leaseholders shall provide trainings to build the skills of local workers.

3.11. Occupational Health and Safety

3.11.1. Leaseholders shall comply with occupational health & safety standards for different types of mines as per prevailing laws and bylaws.

4. Environmental Stewardship

The RGoB shall strengthen the enforcement of mining and environmental laws to give due consideration to environmental integrity guided by the principles of sustainable development and intergenerational equity.

4.1. Environmental Protection and Regulatory Regime

- 4.1.1. The competent agencies shall ensure regular supervision and management of all mines by qualified professionals.
- 4.1.2. Compliance monitoring shall be supported by appropriate progressive penalties.
- 4.1.3. The affected communities shall be informed about the management and mitigation of environmental risks throughout the mining life cycle.
- 4.1.4. The competent agencies shall collaborate with research institutions both within the country and abroad to facilitate transfer of knowledge, skills and technology in the field of environment, protection and regulatory regime.

4.2. Environmental Studies, Assessments, Management and Mitigation Plans

- 4.2.1. The leaseholders shall adopt a risk-based approach in preparation and submission of environmental studies, assessments and management and mitigation plans.
- 4.2.2. A professionally designed MP and EMMP or ESRMMP shall be prerequisites for leasing of a mine.
- 4.2.3. Underground mines or other mines with potential high risk features shall be required to prepare an Emergency Plan and Hazard Preparedness Response Plan.
- 4.2.4. Different stages of mineral development, starting from exploration, mining and production to mine closure and reclamation shall be based on sound, scientific and engineering principles. Mine allocation shall take into account the environmental carrying capacity of each mining area and accordingly avoid unnecessary proliferation of mines.

4.3. Environmental Permits and Approvals

- 4.3.1. Environmental clearances for exploration, mining and surface collection permits shall be obtained as per the environmental laws of the country.
- 4.3.2. The environmental and related permit processes for mining shall be streamlined to enhance service delivery.

4.4. Mine Closure and Reclamation

- 4.4.1. The final MCRP shall be prepared prior to the expiry of the mining lease in consultation with the affected community.
- 4.4.2. A MRF shall be collected from the leaseholder to fund the MCRP.
- 4.4.3. Effective procedures and instruments shall be strengthened to ensure that sufficient MRF is available for reclamation prior to mine closure or in the event the mine is abandoned during the operating period.
- 4.4.4. The mine reclamation shall commence immediately after cessation of the mine operations to ensure post mine reclamation.
- 4.4.5. Progressive reclamation carried out by leaseholders shall be recognized by reimbursing the costs from the MRF.
- 4.4.6. Any balance fund in the MRF after reclamation of the mine shall be refunded to the leaseholder.
- 4.4.7. Post-mining reclamation of all auctioned mines shall be carried out by the MRA on exhaustion of the mineral reserve and abandonment of the mine. The MRF collected from such mines shall not be refunded.
- 4.4.8. The MRF collected from the mines, except for section 4.4.7, shall not be built into the final cost of the mineral. Only that

part of the fund used for reclamation of the mine shall be tax deductible.

4.5. Maintenance of Roads

- 4.5.1. The leaseholder shall be responsible for the maintenance of existing roads being used, on a cost sharing basis. The cost shall be determined by the MRA in consultation with concerned agencies and the leaseholder.

5. Social Risk Management and Mitigation

The leaseholders shall adopt measures to manage and mitigate adverse impacts of mining on the affected communities and minimize social risks.

5.1. Social Participation and Risk Management

- 5.1.1. Public consultations shall be conducted as per the Public Consultation Guidelines. Public consultation shall focus only on the affects of the proposed mining and related activity to the public and their property.
- 5.1.2. The operation of mines shall take place in a manner that gives due consideration to the health and safety concerns of the affected communities.
- 5.1.3. The affected communities shall be informed about the management and mitigation of potential social risks throughout the mining lifecycle.
- 5.1.4. The leaseholder shall identify and rectify all damages made to the available local infrastructure and services due to their mining operation.
- 5.1.5. Redressal mechanisms shall be instituted at the MRA and the Ministry hierarchically to address grievances of the affected communities and resolve disputes.

5.1.6. The initial social mitigation protection provided to the original owners or users of land before mining started shall not be extended to new settlers and users of previously unoccupied or unused land near to the mine once the mine is fully operational.

5.1.7. Mining proposals and related activities shall not be obstructed for personal gains above and beyond the benefits being made to the community.

5.2. Social Risk Studies, Assessment, Management and Mitigation Plans

5.2.1. The leaseholders shall adopt a risk-based approach in preparation and submission of social studies, assessments, and management and mitigation plans.

5.2.2. An acceptable SRMMP or ESRMMP shall be prerequisites for leasing of a mine.

5.3. Mine Closure and Post Mining Adaption

5.3.1. Social risk mitigation regarding mine closure and the post mining adaptation of the community with social and socio-economic aspects shall be included in the MCRP. This shall be carried out in order to inform the community and the local government of the potential socio-economic impacts of mine closure and to enable the community and local government to prepare measures to address them.

6. Socio-economic Benefits and Benefit Sharing

The principles of broad based ownership shall also be promoted through benefit sharing mechanisms. In this regard, the affected communities shall be compensated through benefit sharing for having been negatively affected by mining activities, if any, which shall include the original inhabitants of the community to the extent possible as may be determined by the MRA.

6.1. National Level Benefits

The mining sector offers potential national level benefits such as raw materials for industries, construction materials, employment opportunities and enhanced government revenues.

6.1.1. Towards optimizing the national level benefits, the RGoB shall:

- (1) institute a mineral fiscal regime, a progressive fiscal instrument that provides a fair share of the mining benefits to the nation and where the AETR is fair to both the investor and the State;
- (2) promote value creation by the mineral industry within the country to enhance export earnings and to generate employment opportunities;
- (3) secure supply of primary raw materials for in-country use with due consideration to Bhutan's geological position;
- (4) develop ability to compete in export markets in profitable niche value added products;
- (5) develop and strengthen mining regions into innovative and attractive environment for investments and living; and
- (6) strengthen mining sector by fostering cross-sector knowledge, technologies, expertise and services.

6.2. Local Level Benefits

Mining can also bring substantial benefits at the local level which includes direct and indirect employment and income, development of local businesses, infrastructure, and improved health and education services. Towards optimizing the local level benefits, the following shall be implemented.

6.2.1. The leaseholders shall provide first preference for employment opportunities and priority for procurement of goods and services to the businesses owned by local communities.

6.2.2. A CDA shall be formulated outlining any benefits for the affected communities and shall be signed between the representative of the affected community and the MRA.

- 6.2.3. The MRA in consultation with the local government shall determine appropriate benefits at local level.
- 6.2.4. The CDA may be revised after every five years.
- 6.2.5. The affected communities shall have access to any social infrastructure provided by the mine and, where feasible, access to other infrastructures such as road or water supply.
- 6.2.6. A CDF shall be created to fund activities within CDA. For incorporated mining companies, the CSR contribution requirement by the Companies Act shall form part of the CDF.

7. Amendments

The RGoB shall review this policy every five years. The RGoB shall review and amend the MMMA 1995 and the MMR 2002 to strengthen the management of mineral resources in line with the Policy.

8. Interpretation of the Policy

In the event of conflict of interpretation, the Ministry shall be the authority to interpret various provisions of the Policy which shall be final and binding.

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