

**LEGISLATIVE IMPACT ASSESSMENT REPORT ON THE MINES AND MINERALS
MANAGEMENT ACT OF BHUTAN, 1995**

**Ministry of Energy and Natural Resources
Royal Government of Bhutan**



LEGISLATIVE IMPACT ASSESSMENT REPORT ON THE MINES AND MINERALS MANAGEMENT ACT OF BHUTAN, 1995

1. TITLE OF THE PROPOSAL

- 1) Type of Legal Measure: **Amendment of the Mines and Minerals Management Act of Bhutan, 1995.**
- 2) Lead Ministry/Commission/Agency: **Department of Geology and Mines, Ministry of Energy and Natural Resources.**
- 3) Date of approval of the Legislative Proposal: **May, 2025**
- 4) Expected Date of Adoption Day/Month/Year: **2026**

2. THE BACKGROUND OF THE PROPOSAL

(1) Details of how and why the proposed legislative change has arisen

The Mines and Minerals Management Act, 1995 (MMMA, 1995) was enacted nearly 30 years ago and over the decades, the mining industry has evolved significantly due to technological advancement, environmental concerns and socio economic factors. As a result, this law has become difficult to implement in the modern context. Most provisions of the MMMA, 1995, fail to address emerging issues in mining, making its amendment essential. Further, the provisions of the MMMA, 1995, appear to be in conflict with other existing laws, creating inconsistencies within the legal framework. To ensure legal coherence and effective implementation, it is essential to harmonize the MMMA, 1995 with other relevant laws in the country.

During the civil service reform process, the Office of the Attorney General (OAG) has also identified 13 Acts to undergo major changes, 4 under medium changes, and 29 to undergo minor changes to align the existing laws in the country with the new structural reform, and recommended to consolidate laws with similar objectives for more efficient and effective service delivery through the laws. Another milestone under the civil service transformation initiative was re-organization of civil service agencies into clusters. The Department of Geology and Mines (DGM) with a potential to drive Bhutan's economic transformation has been identified as one of the key drivers under the economic cluster to ensure macroeconomic stability of a nation. During the civil service transformation initiative, DGM has been recognized as a key driver within the economic cluster due to its potential to contribute to Bhutan's economic transformation and to ensure macro economic stability. Towards this, the Ministry has initiated legislative reforms in the mining sector to leverage in line with the national goal of becoming a prosperous and developed country by 2034.

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(2) Detailed background information that provides a context for the objective of the proposal and the policy that is to be implemented

The existing MMMA, 1995, is largely focused on small-scale industrial mining operations, which has limited its capacity to attract large-scale investments and generate significant revenue for the economy and lacks the progressive framework needed to boost investment and revenue generation. These challenges can be tackled through a more progressive and comprehensive legal framework that ensures effective management and governance of the mining industry. The lack of clarity in the allocation process, security of tenure, environmental stewardship, and post-transition mechanism, among other areas, has made compliance more challenging for regulatory authorities. The current framework for allocation is appropriate or limited to industrial minerals and does not cover the metallic minerals. With the recent undertaking of airborne geophysical exploration mapping, the extent of mineral discovery and classification may require robust and inclusive legal frameworks and regulations governing the allocation of metallic and non-metallic minerals to these kinds of new discoveries.

Having exhausted other alternatives, the Ministry is now proposing the amendment of MMMA, 1995, to establish robust legal provisions that promote responsible mining and create a downstream value chain to serve as the foundation for industrialization to help achieve its full economic potential. The above procedural flaws pertaining to the mining industry under the existing MMMA, 1995, can be addressed through amendment of these MMMA, 1995.

Mineral resources and its development are one of the key drivers of economic growth. As the country prepares to become a developed nation by 2024, the existing MMMA, 1995, requires major transformation to create conditions for investment in the sector. Bhutan is endowed with abundant industrial and construction mineral resources such as dolomite, limestone, quartzite, gypsum, talc, marble, graphite, coal, stones and aggregates. In addition, some metallic mineral resources such as copper, lead, zinc, tungsten, gold, rare earth elements (REE) and iron are also known. These resources form raw materials to mineral-based industries. Considering the rich mineral resources endowment and its potential to contribute towards economic growth, the Royal Government of Bhutan identified mining as one of the key drivers of economic growth in the 13th FYP. However, the country is yet to tap into the full potential of the sector. By the end of the current plan period, the sector is expected to contribute Nu. 9.00 billion to the national economy with enhanced legal frameworks.

However, given the current economic situation of the country with widening trade deficit and balance of payment aggravated by impacts of the COVID-19 pandemic, making reforms in the sector to help economic recovery and enable sustained economic growth is of serious concern. The mining sector faces several challenges such as outdated and conflicting legal

provisions, lack of adequate national geological data and information, low-value minerals and limited radius of market, small domestic consumption, less competitive edge over neighboring countries, inadequate infrastructures (mainly for mass and cheap transportation), volatile mineral market dynamics, requirement of huge capitals but lack of easy access to financial equity, less creativity and innovation, lack of technical capacity in government, SoE and private sector. Therefore, amendment of MMMA, 1995 is a top priority of the mining sector to drive these reforms.

The survey questionnaire responses from the various stakeholders suggest that State Owned Enterprise(SoE) undertake strategic and high-value minerals that are crucial for national development, economic security, and long-term sustainability, and the private sector to engage in construction materials, which are low value and high volume business. In terms of performance efficiency, the respondents have rated private sector undertakings to be more efficient by 52% compared to 48% for SoE. Some of the respondents have also opted for hybrid modality such as collaborative efforts between government and private undertakings owing to the complex nature of mining business. The respondents have also suggested promoting broad-based ownership and community development schemes to maximize the benefits from mining.

(3) The detailed description of the issue that the proposal is expected to address.

This proposal is expected to enhance the management and governance of the mining sector, and redefine the mining landscape through amendment of MMMA, 1995 by incorporating the legal provisions that addresses the following issues:

- 1) Amendment of existing MMMA,1995 and consistent mining law: The amendment of MMMA,1995, is essential for addressing the legal and regulatory inconsistencies that currently exist in the mining sector. The Ministry has been working to enhance the legal framework by introducing various regulations and guidelines. However, inconsistencies between the MMMA 1995, existing regulations and other related laws create challenges that undermine the legal clarity, efficiency, and compliance for both entities and regulatory bodies.
- 2) Enhance geological mapping, surveying and geodetic information: This proposal aims to improve revenue targets by allowing private sector participation in mineral prospecting and exploration, revamping data generation, and promoting inclusivity through mixed-mode funding modality for mineral exploration and mining activity, despite the inefficiency of the current legal provisions.
- 3) Optimize mineral extraction: The mining industry faces challenges due to profit maximization and high global demand, leading to exhaustion of higher cut-off grades and depletion of core bodies. The current mining law lacks viable options,

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necessitating a new Act to provide provisions for mineral optimization and determine obligations and accountabilities.

- 4) Promote benefits-sharing mechanisms: Mining operations have a profound impact on nearby communities, often leading to tensions between mining companies and the regulatory bodies. To build lasting ownership, a communal partnership in mining law is needed. Without such provisions, potential mineral deposits fail to realize economic potential. The new proposal should include benefit sharing mechanisms. To ensure sustainable and mutually beneficial mining activities, a robust benefits sharing mechanism must be incorporated under amendment of MMMA, 1995. A well-structured benefits-sharing mechanism is crucial for fostering long-term cooperation between mining companies, regulatory bodies, and local communities. By incorporating such provisions into mining laws, potential mineral deposits can be developed in a way that maximizes economic potential while ensuring equitable growth and sustainability for all stakeholders.
- 5) Establish an environment mitigation hierarchy: The lack of a national requirement for the implementation of the mitigation hierarchy in mining law hinders the effective environmental management planning process. A national requirement for the mitigation hierarchy in mining law ensures a standardized, proactive approach to environmental management. Without such a requirement, mining projects may proceed with inadequate safeguards leading to significant environmental harm.
- 6) Define strategic mines: Over the past six decades, mineral exploration in Bhutan has discovered numerous deposits, including dolomite, limestone, marble, and low-grade coal. These mines generate substantial revenue and employment, making them strategic for the Bhutanese economy. *There is a need to bring clarity in the definition of the strategic minerals in a way that matches current social, economic and market conditions.*
- 7) Develop Allocation framework: Bhutan is balancing state-owned mining operations with private sector operations, focusing on coal, dolomite, and gypsum. However, lack of legal framework discourages long-term private sector investments. A business-friendly environment is critical for investment in mining, requiring security of tenure for investors.
- 8) Enhance provision on mine closure and reclamation: Environment management is crucial in mining projects, especially during the active mining cycle. Current laws lack progressive reclamation intent, necessitating incentives for companies to enforce reclamation requirements through reimbursement mechanisms or pro-rated funds.
- 9) Formulating effective and efficient penalty provisions: The MMMA 1995 penalty provisions are insufficient for addressing serious offenses, posing a serious threat to

natural resources. The outdated fine amounts fail to serve as a deterrent, allowing violators to engage in illegal activities without significant consequences. A well defined penalty provision is crucial for ensuring clarity, consistency, and fairness in the enforcement of any law including MMMA, 1995. The current penalty provision does not explicitly define the specific offence under the MMMA, 1995, which can lead to ambiguity and inconsistent application of the law. Every offence should be clearly outlined with corresponding penalties to ensure transparency and legal certainty. The current MMMA, 1995, establishes progressive penalty system for repeat offences. According to Article 47(a), the penalty for a second offence is doubled, and for each subsequent violation, it continues to increase progressively. However, to prevent ambiguity and misinterpretation by regulators, the law should clearly define specific penalties for each repeated offence. It is therefore essential to distinguish between first time and repeat offenders as recurring violations often demonstrate a wilful disregard for the law. To act as a deterrent, a clear structured progressive penalty system should be implemented, incorporating escalating fines, extended imprisonment, or additional sanctions for habitual offenders under the amendment of MMMA, 1995.

- 10) Strengthen Dispute and Offence Settlement Mechanisms: The current MMMA 1995 mandates DGM to resolve the mine site lease disputes amicably. However, the DGM is already involved in the lease process with the mining operators, and there is no scope for negotiation or mediation between the DGM and mining operators when an offence is reported. Since such offences constitute clear violations of the law, the violator should be held liable for the prescribed penalty under the Act. Additionally, the regulator lacks the authority to waive or reduce penalties for these violations. Penalties should be imposed directly, and the proposal should clearly outline the dispute resolution procedure, define its stages, and establish a timeline for resolving offences. In addition, the law should encompass the authorities to negotiate and settle the dispute within the ambit of law on issues pertaining to premature closure of mines and term extension if it is necessary in the national interest.

This proposal aims to develop a single coherent mining law, define mineral policy intent, promote environmentally friendly mining, enhance mineral resource management, strengthen transparency, enhance regulatory functions, attract investments, promote in-country value chain creation, ensure responsible mining practices, enhance public participation, and promote broad-based ownership in mining. It shall also emphasize on transparency, accountability, and responsible practices.



(4) The economic, social, and environmental effects including unsustainable trends of the issue

i. Economic: The new proposal would improve geodetic data, geological mapping, and surveying. The existing practice of using government funds for mineral mapping and exploration is ineffective and makes it difficult to get private sector involvement. To encourage investment, the amendment of MMMA, 1995 would support broad-based ownership, security of tenure, and a mix-mode finance mechanism for potential mineral resources. Understanding geology is essential to maximizing the financial potential of mineral resources. Promising geological information that is easily accessible to the public would promote investment and help the government expand its revenue base, foreign reserves, job opportunities, infrastructures, etc. However, too much dependency on the mining sector may also shift the development agenda away from other industries. This will result in a conundrum of deindustrialization and current account deficit as other sectors will be sterilised. In the long run, the non-mining tradable sectors will be challenged to embrace innovation and exit the market. Hence, the new proposal must be inclusive and progressive to promote other allied sectors.

ii. Social: To share the benefits of mining, the Community Development Fund (CDF) enforceable in the form of a legal instrument has emerged as part of new mining project development to support community infrastructure developments to foster a sense of ownership of mines and expand the collaboration between mining promoters and affected communities. With adaptable and flexible legal provisions to tap the resources, the mining sector has huge potential to generate employment opportunities for communities to promote livelihood. Such legislative intent would enable some of the attractive mineral resources from realising their economic potential as it will create a win-win scenario for mining promoters and communities.

For development of large-scale mining, the support from the community is necessary since it may displace local communities from their ancestral land and impact their livelihood. Mere resettlement process is not sufficient to address social concerns as it may lead to hardship and impoverishment, leaving families with little or no ability to produce or pursue other financial alternatives. Hence, new legislation shall include inclusive social rehabilitation programs and social risk mitigation programs to address these concerns.

iii. Environmental: Although environmental regulations are stringent, there are no national requirements for the mitigation hierarchy under current mining law, nor in the environmental laws. The lack of a mandated mitigation hierarchy under current MMMA, 1995 is a significant gap in addressing environmental impacts throughout the mining life cycle. Without mitigation hierarchy in place, the environmental management planning process may not include the processes of avoidance, reduction, rehabilitation, and offsetting to achieve a no-net loss across all operations during the mine life cycle. Overall, the new

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proposal will be based on three main principles: environmental, social, and corporate governance, to achieve the economic potential of the mining sector. The new proposal will have a new approach of sustainable mining in compliance to environmental standards and converge or harmonize with the environmental laws. However, large-scale mining may contribute to soil erosion, air pollution, and habitat loss if proper mitigation measures are not implemented through the law.

(5) The risks inherent in the initial situation

At an initial stage, there will be some common challenges during the introduction of the new legislation related to adaptability on some of the newly defined roles and responsibilities from some of the stakeholders. However, this situation is manageable since the amendment of MMMA, 1995 will not create any new institutions or require additional manpower to existing strength. In fact, these all new provisions introduced in the legislation will be implemented by the DGM, which is fully functional under the Ministry of Energy and Natural Resources. By not introducing additional manpower or creating new positions, the legislation ensures that there is no disruption in the current workforce structure. The existing staff within the Ministry of Energy and Natural Resources, particularly those already working under the DGM, will take on the new responsibilities. The adaptability issue can be effectively managed by relying on the already operational DGM and existing personnel. Therefore, there will be no major additional administrative cost.

(6) The underlying motive forces

a) What would happen under a "non-action" scenario?

- 1) The current MMMA, 1995 has been assessed as inconsistent with many existing laws. After civil service reform, there are many changes in institutional set up and a new Ministry has been created with a mandate of managing natural resources under one Ministry. This proposal aims to develop a single coherent mining law that aligns with the objectives of the new Ministry in harmonization with other forest and environment sector policies and laws.
- 2) The Ministry is of the view that there are no other alternatives available to meet the mining policy objectives. It is the priority objective of the new Ministry to promote optimal mineral resource utilization through improvement of mining methods, beneficiation, blending and utilization of low grade ore and rejects and recovery of associated minerals. Currently, there is a lack of clarity in legal provisions to enforce these requirements. Therefore, there is urgency to create enabling measures in the form of robust legal measures to support these initiatives.



- 3) The current MMMA, 1995 does not provide clarity on management of critical minerals and strategic mines. Bhutan is endowed with numerous mineral deposits, including dolomite, limestone, marble, and low-grade coal. These mines generate substantial revenue and employment, making them strategic for the Bhutanese economy. There is a need to bring clarity in the definition of the strategic minerals in a way that matches current social, economic and market conditions.
- 4) The ownership of mineral resources requires enhancement to promote sustainable mining. One of the major concerns in developing nations is ambiguous regulatory functions in management of mineral resources. The new proposal shall adopt frameworks for mining companies that need to have broad based ownership to share the benefits from mining.
- 5) With the advancement in technology, the promotion of large-scale mining may result in displacement of local communities from their ancestral land. To protect the virtuous rights of these communities, the Community Development Fund and Local Content Development is a priority. The current legal provisions do not adequately address these priorities.
- 6) The Amendment of MMMA, 1995, shall emphasize on transparency, accountability, and responsible practices. Towards this, priorities are to enhance mineral resource management, strengthen transparency, enhance regulatory functions, attract investments, promote in-country value chain creation, ensure responsible mining practices and enhance public participation in mining.

b) Affected stakeholders

- 1) Local Communities: There shall be a clear set of roles and obligations of local communities to support the mining proposals based on approved social risk management and mitigation plans.
- 2) Local Government: With the amendment of the Act, there will be clear powers and functions of the local government for issuance of administrative approvals and sectorial clearances for feasible mining sites;
- 3) Department of Forest and Park Services: Bring clear roles and responsibilities in providing forestry clearance for feasible mining sites.
- 4) National Land Commission Secretariat: The security of tenure for feasible mining and quarrying sites shall be guaranteed.
- 5) Department of Revenue and Customs: The progressive mineral fiscal regime shall guarantee a fair share of revenue to the State from sale of minerals.

c) Previous initiatives and existing Legal Measures that are deployed to solve the



issue/problem

- 1) The Cabinet Secretariat directives no. C-4/SOTN-2016/369 dated 22nd July 2016 to revise Mines and Minerals Act.
- 2) The Cabinet Secretariat directives no. C-3/108/2021/1174 dated 30th December 2021 to adopt Mines and Minerals Management Rules and Regulation 2021.
- 3) National Council letter no. NC/RPPD/GAN/02/2016/2457 dated 28/06/2016 to urgently table MMMA 1995 for amendment.
- 4) The MM Bill was introduced and passed by the Assembly in its second and third sessions of the third Parliament and presented to the Council for deliberation during its 26th Session.
- 5) The Joint Sitting of the Parliament deferred the amendment of the disputed Mines and Minerals Bill (MMB) 2020 indefinitely.
- 6) In the FY 2023-2024, the Ministry of Energy and Natural Resources submitted a proposal to revise the Bill.
- 7) In FY 2023-2024, the Cabinet approved the Legislative Proposal to amend the Mines and Minerals Management Act 1995.

3. MAIN OBJECTIVE OF THE PROPOSAL

(1) The comprehensive objective intended to be achieved and the expected impacts, outputs, and outcomes

- i. Develop single coherent mining law to maximise economic benefits;
- ii. Define mineral policy intent and provide legal basis for classification of strategic mines, industrial minerals and construction materials;
- iii. Promote environmentally friendly and socially responsible mining sectors.
- iv. Enhance mapping of mineral deposits, an access to mineral information;
- v. Promote modern scientific mining methods and optimize mineral resource management;
- vi. Strengthen transparency and enhance accountability in mines & mineral



management;

- v. Enhance regulatory functions for geotechnical and mining activities;
- vi. Attract and promote investments through the adoption of global industry best practices;
- vii. Promote in-country value chain creation for industrialization and economic diversification;
- viii. Ensure responsible and sustainable mining practices;
- ix. Enhance public participation and benefit sharing with local communities; and
- x. Enhance broad-based ownership in mining;

(2) Account of any previously established objectives

The objective of the Mines and Minerals Management Act 1995 was to oversee, manage and control exploration, mining, mineral processing and geo-scientific activities in Bhutan.

(3) The rationale for the objective

The mineral 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. Promotion of responsible mining and supply of minerals forms the basis for industrialization and economic diversification. Robust and inclusive mining law is necessary for the development of infrastructures and industrial products for both the local and global economy.

The main rationale for the amendment of the MMMA, 1995, is to update the mandates of the DGM to navigate the reform initiatives towards achieving national aspiration of developed Bhutan by 2034. The current MMMA 1995 has been assessed as inconsistent with many existing laws. The new mining law shall ensure responsible mining practices with an emphasis on Environmental, Social and Governance (ESG) to promote environmental stewardship, broad-based ownership, local content development, security of tenure, Occupational Safety and Health (OSH), cultural heritage, downstream value chain creation and sustainable growth.

The amendment is also intended to bring clarity in the roles of the stakeholders in conjunction with the mandates of the DGM to generate substantial revenue from the mining



sector. It also provides an opportunity for the Department to include emerging issues and opportunities such as energy transition, climate change, partnership and collaboration with institutes to establish knowledge centers, and other forums, that are not included in the existing MMMA, 1995. Further, the new mining law will strengthen the sectoral roles as well as enforcement powers of the line agencies with clearer accountability. Besides providing shorter dispute settlement procedures for effective remedy and engagement of relevant sectors in mineral resource mapping and inventory, the new mining law will also have a clear provision on the imposition of fees, tariffs, fines and penalties that are progressive in nature.

4. POLICY RATIONALE FOR THE PROPOSAL

(1) Clear statement of the issues or problems the proposal is intended to address

- 1) Align with the mandate of the new? Department for promoting environmentally friendly mineral industry with strong value chain creation and growth.
- 2) Develop a coherent and consistent mining legal framework
- 3) Enhance geological mapping, surveying and geodetic information
- 4) Optimise mineral extraction
- 5) Promote benefits-sharing mechanisms between government, mining companies and nearby communities
- 6) Base erosion and profit shifting (BEPS) in domestic law
- 7) Regulate on Mineral Transfer Pricing
- 8) Establish an environment mitigation hierarchy
- 9) Define Critical Mineral List and Strategic Mines
- 10) Develop Allocation Framework
- 11) Enhance provision on mine closure and reclamation
- 12) Amend the Provisions on Penalty
- 13) Strengthen Offence Settlement Mechanism
- 14) Bring clarity in the roles of the Department and other relevant agencies in policy, planning, and implementation;

(2) Why legislation rather than an administrative arrangement, is required

In the 13th FYP, the mining sector has been identified as one of the drivers for economic transformation due to its potential to generate revenue and create employment opportunities. In 2023, the revenue contribution of the mining sector was Nu. 5.51 billion, which roughly is about 2.21% of the country's GDP. However, by the end of the 13th FYP, the revenue contribution from the mining sector has been projected to Nu. 9 billion. This bold initiative was initiated by the government to drive economic activities towards Developed Bhutan and maximise economic benefits. Towards this, there is an urgency to attract investment through the amendment of existing legal and regulatory frameworks to promote sustainable mining practices by accommodating possible ways to improve mining



operations based on rapidly evolving techno-economic trends.

The current mining law is limited to small-scale industrial mine operations, and is not progressive for both investment and revenue generation. Hence, this proposal is expected to enhance the management and governance of the mining sector through inclusion of legal provisions that addresses issues on broad-based ownership, value chain creation, environmental stewardship, benefits-sharing mechanisms, social risk mitigation mechanism, progressive fiscal regime, progressive penalty provisions and development of allocation frameworks for strategic mines and critical minerals.

Amending the existing mining law is crucial for promoting sustainable mining practices and implementing necessary reforms in the mining sector. The Mining laws provide the legal and regulatory framework governing how minerals are extracted, how environmental and social concerns are addressed, and how benefits are shared. Without proper amendments of MMMA, 1995, the mining industry may continue to operate under outdated mining laws that do not align with modern sustainability goals.

(3) A clear explanation of the policy to be implemented - what has to be done and why?

The new proposal intends to comprehensively amend the MMMA, 1995 and propose a Mines and Minerals Bill to address the challenges and concerns faced by the mining sector.

5. OPTIONS AVAILABLE TO ACHIEVE THE OBJECTIVES

(1) The basic approach to reach the objective

The basic approach to reach the main objective is to amend the MMMA, 1995 to ensure it aligns with the evolving market scenario. Given the dynamic nature of the sector, the existing legal framework may no longer be sufficient to address challenges and opportunities. A comprehensive amendment to the Act is necessary to address critical concerns and create a robust regulatory framework that balances social, economic, and environmental factors. This amendment is necessary to minimize the social concerns and maximize the economic potentials from the sector.

(2) Policy instruments that have been considered earlier and the reason for its failure

The existing Mines and Minerals Management Act was adopted in 1995. However, the management of mineral development has evolved over time. For instance, mining conducted using manual tools has progressed over the space of millennia. Twenty-first-century demands have forced the mining industry to continue evolving. In addition, the growing awareness of climate change and the environmental damage caused

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by mining operations, the demands of new technologies, and the depletion of natural reserves of mineral and metal resources have all crystallized the need for innovative technologies. Moreover, the need to improve safety and increase the productivity and economic viability of mines in increasingly extreme environments is essential. Therefore, there is a need to amend the existing mining law to align with the international regulatory and legislative standards to create a level playing field by establishing strong environmental, sustainability, worker, health and safety, tribal consultation, and community engagement standards for mineral exploration and development. This includes establishing specific up-to-date financial assurance, operational, performance, and reclamation standards that require protection of the environment during exploration, discovery, active mining, reclamation, and post-closure.

(3) The options available and rationale for all options

The Ministry has determined that amending the Act is the only viable course of action to achieve the desired policy objectives. This decision is based on a comprehensive assessment of the current mining law, which has revealed significant inconsistencies with numerous existing laws in the country. Failure to amend the MMMA, 1995 could result in legal conflicts, regulatory uncertainty, and challenges in enforcing mining-related policies effectively.

(4) Design and stringency levels that have been considered

To enhance the regulatory provisions, the Ministry has amended Mines and Minerals Management Rules and Regulations 2002. Subsequent to this amendment, the Department has also adopted numerous Guidelines and Standard Operating Procedures to oversee and manage responsible mining. However, these arrangements lacked strong legal and enforcement powers to regulate mining operations. The amendment of MMMA, 1995 is necessary to ensure responsible mining practices with an emphasis on Environmental, Social and Governance (ESG) structures to promote environmental stewardship, broad-based ownership, local content development, Occupational Safety and Health (OSH), cultural heritage, downstream value chain creation and sustainable growth.

(5) The options that have been discarded

The preferred course of action, which is a complete revision of the existing MMMA, 1995, suggests that the current MMMA, 1995 has significant issues that cannot be effectively addressed through minor changes. A partial amendment might address some specific shortcomings, but it is unlikely to resolve the underlying problems or the broader systemic issues within the Act. That's why a complete revision might be preferred over a partial amendment.



6. IMPACTS EXPECTED FROM THE DIFFERENT OPTIONS IDENTIFIED

(1) The expected positive and negative impacts of the options selected, particularly in terms of economic, social, and environmental consequences, including impacts on the management of risks, in particular:

a. The administrative compliance cost;

With the revision of the Mines and Minerals Management Act, there will not be any major additional administrative costs in strengthening the Department with an increase in human resources.

b. The impact on the budget; and

Some budgetary support will be required to amend the Mines and Minerals Management Act, undertake stakeholder consultations, formulate and update regulations, guidelines, standards, awareness and sensitization programs, etc.

c. Creation of new institutions.

There will be no new institutions created with the revision of the Act as the office and the staff already exist

(2) Potential conflicts and inconsistencies between the economic, social, and environmental impacts that may lead to trade-offs and related policy decisions.

The amendment of the MMMA, 1995 does not foresee any potential conflicts and inconsistencies between the economic, social, and environmental impacts that may lead to major trade-offs and related policy decisions. The Act shall instead contribute towards harmonizing and maximizing the socio-economic and environmental impacts to ensure effective mineral resource management in the country.

(3) Impacts of the particular social group, economic sector, or region

The amendment of MMMA 1995, is expected to positively impact society. Firstly, it is anticipated to improve geodetic data, geological mapping, and surveying. Comprehensive geological data is the foundation of investment in the mining industry. Understanding geology is essential to maximizing the financial potential of mineral resources. Geological data that is easily accessible would promote mining industry investment and help the government expand its revenue base, foreign reserves, job opportunities, infrastructures, etc.



Secondly, the legislation would promote the benefits sharing mechanism from mining activity with the affected communities through adoption of a Community Development Fund enforceable in the form of a legal document to support the affected community's welfare to foster a sense of ownership and expand the collaboration. Such legislative requirements would enable many of the attractive mineral deposits from realising their economic potential which remains locked under current legal frameworks.

The new legislation shall contribute towards developing the local economy by providing employment and market opportunities. In addition, the adoption of progressive fiscal regime and enhanced compliance monitoring shall contribute towards increased revenue generation from the mining sector and reduce national trade deficit. Besides these, the new proposal shall also promote environmental mitigation hierarchy that includes the processes of avoidance, reduction, rehabilitation, and offsetting to achieve a no-net loss across all operations during the mine life cycle.

7. JUSTIFICATION OF THE PREFERRED OPTION

(1) The recommended option, and rationale and reasons

The complete amendment of the existing MMMA, 1995, based on the issues and rationales outlined in the questions above.

(2) Have any accompanying measures to maximize positive impacts and minimize negative impacts been taken

The amendment of MMMA, 1995, will have minimal negative impacts, while its numerous positive impacts provide strong rationale for amendment of the MMMA, 1995

8. POWERS AND FUNCTIONS, DECISION-MAKERS, DELEGATES AND REVIEW OF DECISIONS

(1) Clarity of power and function

The new law will have clear powers and functions of the Department and the new Ministry in the implementation of the Act in alignment with its mandates. The functions of the other stakeholders including the dispute settlement committee will be reviewed in line with the new mandates provided by the civil service transformation initiatives.

(2) Decision-maker and delegates

The decision-making for the implementation of the Mines and Minerals Management Act will be divided into various layers where the policy decision will be made by the Ministry



upon technical recommendation of the Department. . The Department, as the nodal agency, will be responsible for implementing the Act and its rules. However, the authority to issue sectorial clearances shall vest with the respective line agencies as per their Acts.

(3) Decision criteria

the Ministry, Department, and the relevant authorities will make the decisions based on the powers granted by the law.

(4) Review of decisions

The existing Act establishes dispute settlement mechanisms at the Ministry level, with the option to appeal to the Court after fulfilling required procedures. However, there is a need to review this process to determine if the appeal process can be shortened by directly referring disputes to the Court and what can be decided at the Department and Ministry level. While there are advantages to having alternative dispute resolution mechanisms, such as negotiations and administrative procedures, it is necessary to consider what should be referred to the Dispute settlement mechanism and what should be taken to Court considering the nature of issues.

9. STAKEHOLDER CONSULTATION

(1) Which interested parties were consulted, when in the process, and for what purpose?

Various stakeholders were consulted during the process of conducting the LIA for the existing MMMA, 1995 by framing and circulating structured survey questionnaires using Google Form. The survey questionnaires were aimed to determine the implementation gaps, incorporate industry best practices for emerging issues and to determine the overall impact of the transformative initiatives in the Civil Service for better efficiency.

The survey questionnaires was distributed to relevant stakeholders such as the Bhutan Chamber of Commerce and Industry (BCCI), Association of Bhutanese Industries; Export Association of Bhutan (EAB); Department of Forest and Park Services (DoFPS); National Assembly of Bhutan; Department of Environment and Climate Change (DoECC); Department of Water (DoW); Department of Surface Transport (DoST); Department of Local Governance and Disaster Management (DoLGDM); Department of Industry (DoI); National Land Commission Secretariat (NLCSC); Dzongkhag and Gewog Administrations; Mining operators (Large, Medium and Small, powdering units); Electricity Regulatory Authority (ERA); State Owned Enterprise (SOE) viz. State Mining corporation Limited (SMCL); Natural Resources Development Corporation Limited (NRDCL); Dungsam Cement

Corporation limited (DCCL); Penden Cement Authority Limited (PCAL); and Dagachhu Hydropower Plant;

CSO - Bhutan Trust Fund for Env't. conservation; DRC; Dept. of Culture; PPD;

(2) What are the results of the consultations?

The responses to the survey questionnaire were received from agencies and organizations which include: National Assembly of Bhutan; Department of Environment and Climate Change (DoECC); Department of Water (DoW); Department of Human Settlement (DHS); Department of Local Governance and Disaster Management (DoLGDM); Bhutan Chamber of Commerce and Industry (BCCI), Export Association of Bhutan (EAB); Department of Forest and Park Services (DoFPS); National Land Commission Secretariat (NLCSC); Electricity Regulatory Authority (ERA); Dagachhu Hydropower Plant; Natural Resources Development Corporation Limited (NRDCL); Dungsam Cement Corporation limited (DCCL); Penden Cement Authority Limited (PCAL); State Mining corporation Limited (SMCL); Dzongkhag Administration (Thimphu, Wangduephodrang, Mongar); Gewog Administration (Thangrong Gewog, Norbugang Gewog), Mining operators viz. Bhutan Ferro Alloys Limited (BFAL); Dawa Dotshang Private Limited; Druk Phuensum Construction limited; Eight Builders Crushing Plant; Gasharibali Stone Quarry; Gunikha Stone Quarry; Jungomlo Stone Quarry; Bremungjug Stone Quarry; Nortak Mines and Minerals Private Limited; RSA Pvt. Limited; Rachu Stone Quarry; Razawog Stone Quarry; Suntalakha Stone Quarry; Tashi Norbu Crushing Plant; Upper Gida Stone Quarry; Banstar Stone Quarry;

The responses received were reviewed and analysed to understand the strength, weaknesses, issues, and opportunities regarding the existing MMMA, 1995. These responses serve as a basis to draw conclusions that support the compilation of LIA and submission of proposals. The consolidated responses and feedback from the stakeholders for each survey questions are outlined below:

1. About 72% agreed that the existing MMMA, 1995 has to undergo amendment. Some of the reasons for the need of amendment are to strengthen the regulatory and enforcement functions, enforce responsible scientific mining, and define the security of tenure and broad-based ownership.
2. Some of the provisions of the MMMA, 1995, that are being impacted after the recent national transformative initiatives are due to lack of private sector and individual participation involving Foreign Direct Investment (FDI) and joint ventures; less transparent and lengthy leasing procedures to attract investment; no provisions for public private partnership (PPP) in strategic mineral developments; less transparent revenue sharing mechanism between government and investors; less emphasis on processing minerals within Bhutan to boost the local economy and create jobs;



amend MMMA, 1995, as its provisions are outdated and remain unchanged till date especially on offense, fines and penalty. The Act also lacks provisions to align with digital transformation. Additionally, it does not clearly outline direct benefit-sharing agreements with local communities. Furthermore, the Requirement for Community Clearance in its current structure, poses a hindrance due to its lengthy bureaucratic process.

3. Some of the shortcomings of the existing Act are: Lack of clarity on private sector and individual participation; No emphasis on value addition and industrial development; Weak environmental and social safeguard; outdated royalty and revenue sharing model; Poor governance and Regulatory framework; No fast tract dispute resolution system; Lengthy bureaucratic process; Limited Community Engagement and Rights Protection of the promoters and local;
4. Provisions that need to be incorporated in the Mines and Minerals Management Act to ensure its efficiency and effectiveness include : Lower royalty for value added products to promote local mineral processing and value additions; Clear private sector and foreign investment framework classification of strategic and critical minerals; Sustainable mining and net-zero compliance; Adopt modern technologies to encourage the use of advanced, eco-friendly mining technologies; Introduce mandatory community profit-sharing policies. Mandatory renewable energy usage in large-scale mining operations.
5. About 89.10% of respondents believe that amending MMMA, 1995, will enhance management, promotional, regulation and service delivery functions.
6. Some of the weaknesses of MMMA, 1995, as identified by respondents include the absence of a structured mineral classification system; a rigid government monopoly discourages foreign investment & technology transfer; and a system heavily dependent on the agency and dealing with persons without clarity. Additionally, the regulatory framework is outdated and inflexible, with limited emphasis on value addition. The approval process is bureaucratic and slow, there is no independent regulatory body, and the penalty and compliance mechanisms are ineffective.
7. As per the survey, about 72% of respondents have stated that the Mines and Minerals Management Act 1995 has conflicting sections with other existing Acts such as Forest and Nature Conservation Act (FNCA) 1995; Water Act of Bhutan 2011; Environment Assessment Act 2000 and Local Government Act 2009.
8. In response to a question on efficiency between State Owned Companies and private companies, 52% responded that private companies are more efficient, and the remaining 48% supported State Owned Companies as efficient in undertaking mining activities in Bhutan.



9. Majority of respondents (63%) have responded to allocate strategic minerals to State Owned Companies on priority as strategic and high-value minerals are crucial for national development, economic security, and long-term sustainability, while 10% have responded to allocate other minerals besides Strategic, Industrial and Construction materials to State Owned Companies.
10. In response to a question, what kind of minerals should be allocated on priority to the private sector, 56% of respondents favored the allocation of construction materials to the private sector. Only about 28% and 16% of respondents favored the allocation of industrial and strategic minerals respectively, to the private sector.
11. About 72.90% of respondents supported promoting broad-based ownership in mining, whereas 6% of respondents did not support it and remaining 22% of respondents stated that they do not have an idea about broad-based ownership.
12. About 52.4% of respondents have favored a maximum stake of 51% by mine promoters or primary shareholders for a single mine, whereas 28.6% of respondents have favored 60% state for primary shareholders own for a single mine. The remaining 19% of respondents have preferred other stake modalities besides above two ratios.
13. In response to a question on how mining activity in Bhutan should promote Environmental, Social, and Governance (ESG) factors, the respondents cited that "Mining in Bhutan must integrate ESG factors to ensure sustainable development. Environmentally, adopt eco-friendly practices, use renewable energy, conduct rigorous Environmental Impact Assessments (EIAs), and enforce land reclamation and biodiversity protection. Socially, engage communities through inclusive decision-making, benefit-sharing, and regular Social Impact Assessments (SIAs), while promoting transparency and ethical governance.
14. About 74.50% of the respondents have supported the need to mandate the mining companies to adopt a benefit sharing mechanism such as CSR, some form of profit sharing, community development fund, etc. with the immediate community, within 500m crow flight distance from the periphery of the mining boundary. While the remaining 25.5% have stated there is no requirement to adopt a benefit sharing mechanism by mining companies.
15. In response to a question on whether the government should continue to emphasize value addition on potential minerals before export to maximise economic benefits, about 72.90% of respondents have opined to enforce value addition requirements on potential minerals to create a downstream value chain and promote domestic industries. Whereas, 22% of respondents have remained neutral on value requirements and the remaining 6% of respondents have stated there is no



requirement to enforce such requirements. To this, they have cited reasons such as high costs, long payback periods, unclear policies, and higher taxes on value-added minerals. Clearer policies and incentives are needed to encourage long-term mining investments.

16. To promote public service efficiency towards realizing "Enlightened Entrepreneurial Bureaucracy," views were sought from the respondents to replace Dzongkhag Tshogdu Clearance, which is time consuming, with the Dzongkhag Administrative Approval for mining projects. To this, 74% of the respondents have opined in favor of replacing the Dzongkhag Tshogdu Clearance with the Dzongkhag Administrative Approval for mining projects. Whereas, 26% of respondents have favored maintaining status-quo.

17. Majority (88.9%) of the respondents have supported the need to develop Public-Private Partnership for development of high value minerals in the country. This indicates there is an urgency to review the current mineral policies and regulatory frameworks to encourage Public-Private Partnership for development in the mining sector.

18. In conclusion, respondents were given an option to share any additional suggestions or recommendations (not covered in the previous questions) for enhancing the effectiveness and relevancy of the Act. To this, some of the respondents suggested streamlining approval processes, reducing bureaucracy, and adopting a one-window clearance system to enhance the Act. They recommended empowering local governments, promoting FDI in non-strategic minerals, and focusing on mineral conservation. In addition, regular training on advanced mining technologies, ensuring private firms fulfill social commitments, and providing hardship allowances for miners were also highlighted. Simplifying regulations, sharing mining benefits with citizens, and avoiding administrative biases were key points to improve the Act's effectiveness and relevance.

