

# **SUSTAINABLE MINING AND GEOINFORMATION**

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**Week – 10**

## **Lecture 47: Sustainable Development in Mining Legislation- NMP 2019**

Thank you. Welcome, students, to lecture number 47 of the NPTEL online certification course on sustainable mining and geo-information. Today, we are starting a new topic, and the name of the topic is Sustainable Development in Indian Mining Legislation. So, if you follow the mining legislation as applicable in the Indian context, there are acts, rules, regulations, and policies that mention sustainable development. There are rules, regulations, policies, and acts. We shall discuss which acts, rules, regulations, and policies mention sustainable development and what those provisions are. For example, previously, we discussed mine closure planning, which is also part of the regulations we covered during that lecture. Today, we will discuss the National Mineral Policy 2019, study its provisions, and examine how the concept of sustainable development is mentioned there.

How does the National Mineral Policy intend to develop our mineral deposits sustainably? Which policies are explicitly intended for sustainable development, or what are the facets of sustainable development? We shall start today's lecture with the salient points of the National Mineral Policy 2019. This policy pertains to non-coal and non-fuel minerals and was released by the Ministry of Mines, Government of India. When discussing this policy, we will cover the vision, the state's role in mineral regulation, environmental protection, welfare of affected persons, mine closure, and other provisions mentioned in the National Mineral Policy. So, here is the National Mineral Policy 2019. You can find this policy on the Ministry of Mines website. Download the document and review its provisions. The NMP has a vision. What is the vision for NMP 2019? Mineral management must align with national goals and integrate into the country's overall economic development strategy. What is the country's strategy for economic development?

## VISION

- Management of minerals have to be guided by national goals and perspectives, to be integrated into the overall strategy of the **country's economic development**.
- Minerals, are a shared inheritance and the State is a trustee on behalf of the people;
- Regulatory environment should be conducive to ease of doing business with simpler, transparent and time-bound procedures for obtaining clearances.
- Mining contributes significantly to state revenues; **Need for efficient regulatory mechanism, use of e-governance systems to prevent illegal mining and value leakages.**



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## CONCEPTS COVERED

- Salient points of the national mineral (non-coal and non-fuel) policy, 2019.
- Vision
- Role of State in Regulation of Minerals
- Protection of Environment
- Welfare of Affected Persons
- Mine Closure



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## NATIONAL MINERAL POLICY, 2019



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Our mineral policy's objectives and strategies must conform to the country's economic development goals. It should align with national economic priorities. Minerals are a shared inheritance, and the state acts as a trustee on behalf of the people. Mineral resources, like other natural resources, belong to the people. These resources must be shared equitably, not only with the present generation but also with future generations.

The state manages these resources as a trustee. The state is a caretaker or trustee responsible for judicious resource use, ensuring benefits for all people and generations. That is the vision statement. The regulatory environment should facilitate ease of doing business with simpler, transparent, and time-bound clearance procedures. Mining contributes significantly to state revenues through taxes and royalties. An efficient regulatory mechanism, such as e-governance, is needed to prevent illegal mining and value leakage. All these points relate to sustainable development, where economic growth, generational equity, and scientific regulation for resource extraction and use are key components.

So, the prevention of illegal mining, value leakage, and everything else will all contribute to the sustainable development of the mining industry. Furthermore, the mining industry contributes significantly to employment generation. There shall be a focus on gender sensitivity in the mining sector at all levels. The mining sector is a huge employment generator and employs many people. While mining provides employment, there has to be gender sensitivity with respect to males versus females. If you look at our present Sustainable Development Goals (SDGs), there is also a very important point, which is the education and employment opportunities for the women's community. The mining industry has to be very sensitive so that while it provides employment, it has to give sufficient opportunities to the women's community. Endeavors shall be made to set up a unified authority at the national level for mineral development and coordination to fulfill the objective that the allocation of mineral resources is done in a fair and transparent manner to ensure equitable distribution of mineral wealth for the common good. Regarding mineral resources, the country or the state has to utilize the mineral resources for the development of society. And how will it utilize them? The state will utilize the mineral resources through the public sector or private sector companies. Now, how the resources will be allocated to the public sector companies or the private sector companies, there has to be a transparent, fair policy so that everyone gets equal opportunities, because it is public property. So this is very important. The transparency part includes properly laid out rules so that everyone knows them.

**VISION**

- Mining contributes significantly to **employment generation**. There shall be focus on **gender sensitivity** in the mining sector at all levels.
- Endeavour shall be made to set up a **unified authority at national level** for mineral development and co-ordination to fulfill objectives of this policy.
- Allocation of mineral resources is done in a **fair and transparent manner to ensure equitable distribution of mineral wealth for common good**.
- Mining needs to be carried out in **environmentally sustainable manner**.
- **Benefits of mining** to be shared with **affected persons** with objective of maintaining **high level of trust** between all stakeholders.

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So these are part of accountability and transparency. This is also part of sustainable development. Mining needs to be carried out in an environmentally sustainable manner. That is also important and present in the vision document. The benefits of mining are to be shared with all the project-affected persons with the objective of maintaining a high level of trust between all stakeholders. We have discussed previously that when mining affects the people, the project-affected people, or the local community, sometimes in an adverse manner, the benefits of mining should go to the affected people. If the mining industry has a policy to ensure that the benefits of the mining company are distributed or shared with the project-affected community, then there will be confidence between the mining company and the project-affected persons. There will be trust between the mining industry, the affected persons, and the community, and all stakeholders will have trust. Trust in the mining company, in the government, and trust between the mining company and the community. This is very important so that the mining company enjoys the social license to operate. Section 2: Regulation of minerals: Now, this policy emphasizes strengthening the regulatory mechanism by incorporating e-governance, satellite, and remote sensing technology. Provisions shall be made for end-to-end accounting of the mineral or ore in the supply chain with the use of IT-enabled systems. If you remember our sustainable development framework, we discussed the use of technology for the development of the mining industry. When you use modern technology, productivity increases.

**2. REGULATION OF MINERALS**

**2.4. Emphasis on strengthening the regulatory mechanism by incorporating E-Governance, satellite and remote sensing.**

Provisions shall be made for end-to-end accounting of mineral/ore in the supply chain with use of IT enabled systems.

**3.1. There shall be transparency and fairplay while reserving areas for State agencies.**

Grant of clearances for commencement of mining shall be streamlined with simpler and time bound procedures facilitated through an on-line public portal with provision for generating triggers at higher level in the event of delay.

Our resource base increases. Our efficiency of extraction increases. So the process becomes more efficient, leading to the conservation of minerals. These technologies, such as e-governance, IT services, satellite, and remote sensing, are advocated in the vision document and policy document for the use of modern technology. Sec 3.1: There shall be transparency and fair play while reserving areas for a state agency. This is again how the allocation of the mineral deposit works. Regarding the state agencies and the private agencies, we know there are many state agencies, such as the public sector companies of the Government of India, central PSUs, or the public sector companies of the state, such as state PSUs. So, in the mineral sector, both the state sector and central PSUs exist, and sometimes they give preferences to the PSUs. But the rules and regulations should be clearly stated and mentioned so that it is very transparent. There should be no confusion or hidden agenda, and there should be complete transparency. The grant of clearances for the commencement of mining shall be streamlined with simpler and time-bound procedures facilitated through an online public portal, with the provision of generating triggers at a higher level in the event of a delay. These provisions are being implemented by many state governments, mineral-bearing state governments like Odisha, and other states, where they are granting the mining leases. All these things are available on a portal, a web portal, and when a company applies, they can see where their application is. These things are there to streamline and simplify the procedure so that time-bound decisions can be taken. So, the role of the state in mineral development is very important. Sec. 3.2: Trust among different stakeholders is vital to achieve sustained growth in the mining sector.

So, the state will endeavor to increase the trust level between the government, the mining company, local communities, and other stakeholders like civil societies, environmental activists, etc., openness, fairness, better regulation, responsiveness, and inclusive

policymaking. These are key for a transparent policy implementation in mineral development. If you have fairness and transparency, there will be sustainable growth in the mining industry. In the past, there have been many examples of illegal mining or corruption, and because of that, the growth of the mining industry has been hampered. If we have openness and transparency, and proper regulations, then the growth of the industry will be sustainable, and it will contribute to the economic growth of the country in general. Section 6, mining and mineral development: The General strategy is to focus on primary minerals, though primary minerals will remain the principal source for fulfilling the country's mineral demand. It should also be used to augment the supply by developing processes for the recovery of metals through recycling. So, here we are talking about recycling, and we have also discussed how recycling contributes to sustainable development. The reusable nature of the metals contributes to the conservation of natural resources and includes other benefits, such as energy conservation, environmental benefits, and economic benefits. So all these, whether it is the conservation of natural resources or conservation of mineral resources or whether it is the energy conservation, environmental protection, or economic benefit, all these are contributing to the sustainable development of the mining industry and the sustainable development of the country. Section 6.2 is conservation and mineral development. Conservation is a key element of sustainable development.

**3. ROLE OF STATE IN MINERAL DEVELOPMENT**

3.2 Trust among different stakeholders is vital to achieve sustained growth in mining sector.

- State will endeavor to increase trust level between government, miners, local communities and other stakeholders through openness, fairness, better regulation, responsiveness, inclusive policy making.

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**6. MINING AND MINERAL DEVELOPMENT**

**6.1. General Strategy:** Though primary minerals will remain the principal source for fulfilling demand, efforts be made to augment supply by developing process for recovery of metal through recycling. The reusable nature of metals contributes to conservation of natural resources and includes other benefits e.g. energy conservation, environmental and economic benefits.

**6.2 Conservation and Mineral Development**

- Conservation not in restrictive sense of abstinence from consumption or preservation for use in distant future but a positive concept leading to augmentation of resource base.
- Effective legal and institutional framework promoting zero-waste mining and commitment to prevent sub-optimal and unscientific mining.
- Collaborative mining amongst mining concessionaires located in large mining belt shall be encouraged to ensure optimum extraction of mineral.
- Value addition encouraged by providing fiscal and/ non-fiscal incentives.

Conservation of natural resources. Conservation is not in the restrictive sense of abstinence from consumption or preservation of the resource for use in the distant future. Nobody is suggesting that we should not consume our resources in the present time, so that we will store them for the future. That abstinence from consumption nobody is suggesting. What is suggested is that we should consume the resource in a judicious manner. Best possible, we should use an efficient methodology. So that we don't waste our resources. That is the. Key. Philosophy of the present policy document: An effective legal and institutional framework promoting zero waste mining. We should not waste our mineral resources. We should use our mineral resources. All the resources for different grades are there. We should better utilize the resources we have; we can use technology for poor resources, which we are terming as waste today. We should develop the technology through research and development so that we can also use it as a resource. So that we don't waste any mineral resources, which is known as zero waste mining. So, zero waste mining should be promoted, and there should be a commitment to prevent suboptimal and unscientific mining. So that is the policy mentioned in the National Mineral Policy Document. Collaborative mining among mining concessionaires, located in large mining belts, shall be encouraged to ensure the optimum extraction of minerals. Now, in a mining belt, you may have small mines of different companies. So, they can collaborate to bring the best technology, to share their asset, equipment, and smelter. So that is a better extraction of mining and utilization of the minerals in the metallurgical industry, which can be done.

So, collaboration is very, very necessary and essential. Value addition is encouraged by providing fiscal and non-fiscal insight. This is one of the main key points of the national mineral policy. We have mineral resources. We should always try for value addition, so that we process the mineral resources and produce finished products, let us say finished

steel, finished aluminium, refined aluminium, and then we will have the downstream industry, manufacturing industry, where we will be producing different appliances, products, and parts. If you do the value addition in our country, we will generate employment. We will generate business in our country. We will earn a lot of revenue by selling those finished products in our market or by exporting them. So, this is a very important point. Sec 6.3 is the scientific method of mining. The scientific method of mining is also one of the sustainable development framework parameters. So, the mine development and mineral conservation regulation will be on a scientific basis. Only when we use modern scientific tools will our mining be more efficient and productive. Our waste generation will be less. The waste treatment method will be very efficient. So, science and technology should always be encouraged to conserve resources for better profitability and productivity. Regulatory agencies like the Indian Bureau of Mines, the state agency, and the state directorate will closely interact with R&D organizations like the CIMFR, the Central Mining Fuel Research Institute, NEERI, and the National Metallurgical Laboratory to develop technology.

**6. MINING AND MINERAL DEVELOPMENT**

**6.3 Scientific Methods of Mining**

- Mine development and mineral conservation regulations will be on sound scientific basis. **Regulatory agencies, IBM, State Directorates will closely interact with R&D organisations.**
- Regulatory agencies will be strengthened through capacity building measures in terms of **manpower, technology, equipment and skill-set.**

**6.6 Infrastructure Development**

- Contribution of mineral development to **regional and peripheral development** is significant. An **integrated approach** shall be encouraged encompassing mineral development, regional development and the social and economic well-being of the local, and particularly, tribal population.

Using this technology, our process will be more efficient and our waste generation will be less. Our processes will be more environmentally friendly. Regulatory agencies will be strengthened through capacity-building measures in terms of adequate manpower, providing the latest technology, equipment, and skill set. So if the regulatory agencies are empowered with the technological knowledge and skill set, then they can do better monitoring. Sec 6.6 is infrastructure development. Contribution to mineral development and regional and peripheral development is significant. We know the mining industry contributes to regional and peripheral area development. An integrated approach shall be encouraged. encompassing mineral development, regional development, and social and economic well-being of the local community, particularly the tribal population. Most of

the mineral deposits are lying in the forest area where the local community is tribal population, and the tribal people are a weaker section of the people. So, the mining industry should always contribute to the development of the local community, and an integrated approach should be encouraged. Section 6.8 is about small-scale mines or small deposits. We know that in small deposits with modest capital expenditure and short lead time, small mines provide a lot of employment opportunities to the local population. However, a lack of economies of scale leads to suboptimal mining and ecological disruption. Efforts should be made for scientific and efficient mining in small deposits, safeguarding the environment and ecology.

**6. MINING AND MINERAL DEVELOPMENT**

**6.8 Small Deposits/ Small Mines**

- With modest capital expenditure and short lead-time, small mines provide employment opportunities for local population.
- Lack of economies of scale lead to sub-optimal mining and ecological disruption. Efforts to be made for scientific and efficient mining in small deposits safeguarding environmental and ecology.
- When small deposits not feasible for viable mining, cluster approach to be adopted by granting deposits together as a single lease within a geographically defined boundary.
- For small deposits of precious- and base -metals establishment of common smelting and refining facilities shall be encouraged.
- Small mines in Scheduled Areas: Efforts to accommodate Scheduled Tribes while extending enabling environment to carry-out mining operations in systematic and efficient manner.

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When small deposits are not feasible for viable mining, a cluster approach is adopted by granting deposits together as a single lease within a geographically defined boundary. So within a geographical area, there are many mines. So you can think of giving a single lease so that they can take a unified management, share assets, share knowledge, and share our smelter. That will help them. For small deposits of precious and base metals, the establishment of common smelting and refining facilities shall be encouraged. Section 6.10 is the protection of the environment. Protection of the environment is a critical element of sustainable development. While mining is done, steps should be taken to protect the forest environment, the environmental resources, ecology, and the conservation of biodiversity. Prevention and mitigation of adverse environmental effects due to mining, utilizing the latest scientific knowledge and modern reclamation and afforestation practices, shall be an integral part of the mine development strategy. Mining is to be done within the parameters of a comprehensive sustainable development framework, using environmental, economic, and social considerations that are integrated effectively in all mining decisions. The guiding principle is that miners shall leave the mining area in better ecological health, at least as good or better compared to before

mining conditions, with the least impact on the flora and the fauna of the mining area. So, mining operations shall not ordinarily be done in an ecologically fragile and biologically rich area. The government shall identify ecologically fragile areas and declare them as no-go areas. The government of India has identified many areas as ecologically fragile zones, and mining is not allowed in those zones. To achieve better semblance between mining industry development and environmental efforts, to create an exclusive mining zone with prior in principle statutory clearances demarcated for the mineral belt to avoid conflicts of interest, and to curtail delay in the regulatory clearances so that mines can be commenced in the shortest period of time.

The government can create an exclusive mine zone where statutory clearances are already granted so that the investor can get the lease, and then it can start mining right away without any delay. Because that will help the economic growth of the country. To reduce pollution, carbon footprint, and operational cost, the use of renewable resource energy in the mines should be incentivized. Sustainable development is mentioned in Section 6.11, which states that environmental, economic, and social considerations should be applied from the beginning of the decision-making process of the mining. Starting with the exploration, starting with the grant of the leads. To ensure the sustainable development of the mining industry. When we say sustainable development of mining. It means financially viable mining, socially responsible, environmentally, technically, and scientifically sound with a long-term view of the development, and which uses mineral resources optimally and ensures sustainable post-closure land uses. The government shall set the benchmark against which the mining operation shall be evaluated on the performance of the sustainable development framework. So, the government can evaluate how these companies are performing on a sustainable development framework, and there can be some incentive scheme where the company that performs better can be given incentives. The welfare of the project-affected person is also a critical part of sustainable development. So, R&R, resettlement, and rehabilitation of displaced and affected persons. Mining may involve the acquisition of land held by people, including the tribal and weaker sections. Careful assessment of the economic, cultural, environmental, and social impact of the mining project shall be undertaken.

## 6.11 SUSTAINABLE DEVELOPMENT IN MINING

- Environmental, economic and social considerations to be applied from beginning in decision-making process, to ensure sustainable development which envisions mining as:
  - *financially viable;*
  - *socially responsible;*
  - *environmentally, technically and scientifically sound;*
  - *with a long term view of development;*
  - *uses mineral resources optimally; and,*
  - *ensures sustainable post-closure land uses.*
- Govt. shall **set benchmark** against which mining operations be evaluated for **performance on sustainable development framework** and enforce commitment on part of the mining companies to adopt sustainable development practices for achieving environmental and social goals.



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## 6.12 WELFARE OF PROJECT AFFECTED PERSONS

### (a) R & R of Displaced and Affected Persons:

- Mining may involve **acquisition of land** held by people including tribal and weaker sections. Careful **assessment of economic, cultural, environmental, and social impact** on the **affected persons** need to be undertaken to **ensure that suitable, appropriate, relief and rehabilitation packages are evolved.**
- In mining areas inhabited by tribals and weaker sections, it is important to recognize resettlement and rehabilitation issues as intrinsic to the development process of the affected zone.
- Mechanism to be evolved to improve the living standards of the affected population and ensure them a **sustainable income.**
- Provisions of Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 shall be implemented.



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To ensure that mining companies implement suitable, appropriate relief and rehabilitation packages in mining areas inhabited by the tribals and weaker sections. It is important to recognize that resettlement and rehabilitation issues are intrinsic to the developmental process of the mining sector. Now, a mechanism should be involved to improve the living standard of the affected population and ensure a sustainable income during and after the mining. Compensation and transparency in the Land Acquisition, Rehabilitation and Resettlement Act 2013 shall be implemented for mining projects, particularly projects where tribal and weaker section people are displaced. Section 6.12- Welfare of the project-affected persons. Devolution of mining benefits to the project-affected persons. How does the mining benefit? Profit of the mining company can be shared with the project-affected people and the project-affected area. Particularly, when we say project-affected area, we call it the district in which the mining is located. So, the mining legislation has mandated the establishment of the district mineral foundation DMF. The DMF's objective is to work for the interests and benefits of the project-affected persons and the project-affected areas affected by the mining industry. The objective of the

District Mineral Foundation is inclusive and equitable development of the project-affected portions and areas guided by the provisions of the Pradhan Mantri Kanish Kshetra Kalyan Yojana. So, recently, the Pradhan Mantri Kanish Kshetra Kalyan Yojana document has been released by the government, and our DMF will be operating guided by the provisions of the PMKKKY. This document is also available in the public domain on the Ministry of Mines website. It can also be downloaded. The government will monitor and review the implementation of schemes under the DMF to give the effect of PMKKKY in a national web portal, and it shall be freely accessible to the public. Section 6.12 C - the welfare of the tribal community.

**6.12 WELFARE OF PROJECT AFFECTED PERSONS**

**(b) Devolution of Mining Benefits to PAPs:**

- Mining legislation mandates establishment of **District Mineral Foundation ("DMF")** with objective of working for interest and benefit of persons, and areas, affected by mining operations.
- Objectives of DMF is **inclusive and equitable development of project affected persons and areas** guided by provisions of **Pradhan Mantri Khanij Kshetra Kalyan Yojana (PMKKKY)**.
- Govt. to **monitor and review** implementation of schemes under DMF for giving effect to PMKKKY for a national web portal shall be developed with free access to the public.

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In the mining area, in many cases, we are dealing with the tribal community and the government. With our Indian legislation, we have special regulations for the preservation of the identity and benefits of the tribal community. So, land acquisition and the displacement of the tribal community due to mining may lead to distress in the tribal community in scheduled areas. Scheduled areas, we have discussed how the government of India has declared scheduled areas with respect to the 5th schedule and 6th schedule, and if mining is coming in the scheduled areas, now the provisions of the Scheduled Area Act and the tribal areas, this regulation like Panchayat extension to the Scheduled Area Act. PESA 1996 will be implemented. And also the scheduled tribes and other traditional forest dwellers, recognition of the Forest Rights Act 2006, both these acts, PESA 1996, and recognition of the Forest Rights Act 2006, will be implemented. Apart from that, all the acts and rules with respect to the Transparency in Land Acquisition, Rehabilitation and Resettlement Act 2013 will also be implemented in the scheduled area. Section 6.13 is mine closure, and if you remember, mine closure is also a framework parameter in the sustainable development framework of the mining industry. So we know that once the mine's mineral resources are exhausted, there will be a scientific mining closure, which

will restore ecology and biodiversity. Also, it should consider the socio-economic aspect of the community in a compassionate way. We have discussed in detail the mine closure and how we have to arrange for the environmental protection, conservation of biodiversity, restoration of biodiversity, and reclamation of the land. Then, financial security and financial provisions are geared towards the cost of reclamation. These are all ensured in the regulations that come with respect to the mine closure.

**6.12 (c) WELFARE OF TRIBAL COMMUNITIES**

- Land acquisition and displacement of tribal community due to mining may lead to distress in tribal community in **Scheduled Areas**.
- Grant of mineral concessions in Scheduled Areas shall be guided by the provisions contained in **article 244 read with Fifth and Sixth Schedules** to the Constitution relating to administration of the Scheduled Areas and Tribal Areas and the provisions of the **Panchayats (Extension to the Scheduled Areas) Act, 1996** and the **Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006**.
- Acts/Rules related to R & R like The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013, and any other relevant acts/rules shall be strictly implemented.

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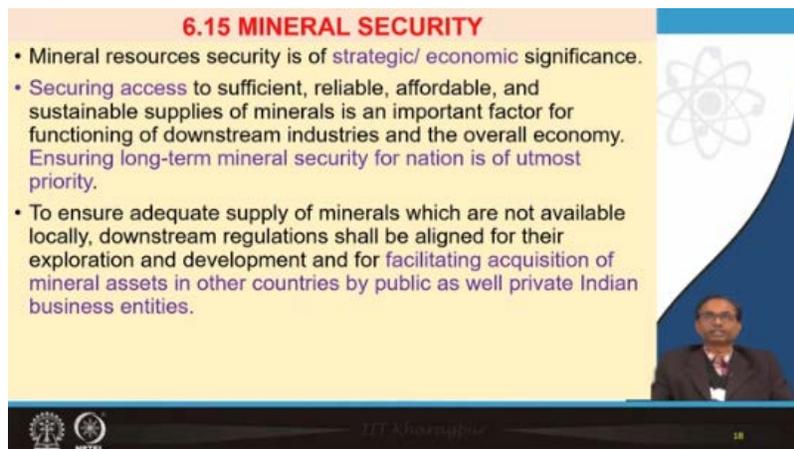
**6.13 MINE CLOSURE**

- Once the reserves in mine are **exhausted** there will be **scientific mine closure** which will **restore ecology and bio-diversity** and take into account the socio-economic aspects of the community.
- Where mining activities have been spread over a few decades, mining communities get established and closure of the mine means not only **loss of jobs** for them but also **disruption of community life**. Mine closure should be done in an **orderly and systematic manner**.
- Govt. to ensure that post-closure **mine decommissioning and land reclamation** are an **integral part** of the mine development process;
- **Financial provisions** for the costs incurred in mine closure are accorded a high level of priority by the industry; and that consistent approaches are adopted for efficient and effective mine reclamation and rehabilitation.

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Section 6.15 is the mineral security: This is very, very important for the sustainable development of mining in the country, as mineral resources security is of strategic and economic significance. So securing access to sufficient, reliable, affordable, and sustainable mineral supplies is an important factor for our downstream industries' overall economic growth. Ensuring long-term mineral security for national requirements is of utmost importance to us to ensure an adequate supply of minerals that are not available in our country. Now, there should be facilitation for the acquisition of mineral assets in other countries by public as well as private Indian companies, and the government should facilitate how the public sector company and the private sector company can acquire

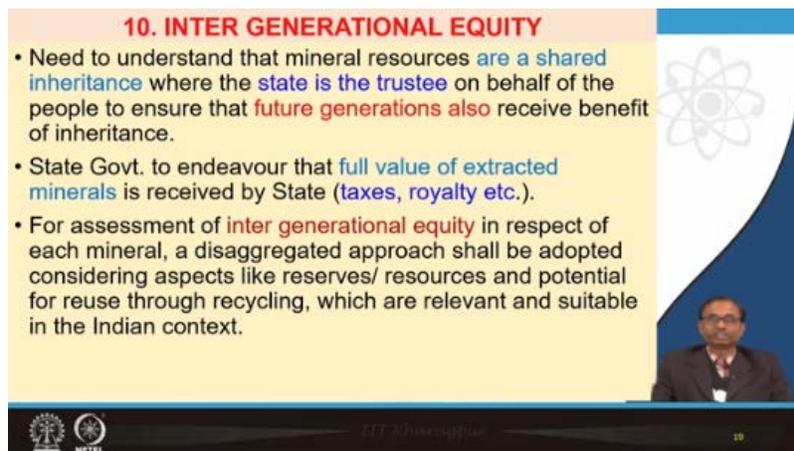
critical mineral assets in other countries, such as Africa, South America, and other countries. So, that is the 10th point, which is intergenerational equity. If you remember the definition of sustainable development, intergenerational equity is one critical element of sustainable development. We need to understand that mineral resources are a shared resource, a shared inheritance resource. The state is the trustee, which works on behalf of the people to ensure that the present generation and the future generation receive the benefit of the mineral resources. The full value of the extracted minerals is received by the state. So full value means in terms of the revenue, in terms of the taxes, royalties, as well as the critical raw material which will be used for the manufacturing industry. For assessment of intergenerational equity in respect of each mineral, a suitable approach shall be adopted considering how much is our own reserve, how much is our own resource, and what is the potential for reuse through recycling, which are relevant and suitable in the Indian context.



**6.15 MINERAL SECURITY**

- Mineral resources security is of **strategic/ economic** significance.
- **Securing access** to sufficient, reliable, affordable, and sustainable supplies of minerals is an important factor for functioning of downstream industries and the overall economy. **Ensuring long-term mineral security for nation is of utmost priority.**
- To ensure adequate supply of minerals which are not available locally, downstream regulations shall be aligned for their exploration and development and for **facilitating acquisition of mineral assets in other countries by public as well private Indian business entities.**

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**10. INTER GENERATIONAL EQUITY**

- Need to understand that mineral resources **are a shared inheritance** where the **state is the trustee** on behalf of the people to ensure that **future generations also** receive benefit of inheritance.
- State Govt. to endeavour that **full value of extracted minerals** is received by State (**taxes, royalty etc.**).
- For assessment of **inter generational equity** in respect of each mineral, a disaggregated approach shall be adopted considering aspects like reserves/ resources and potential for reuse through recycling, which are relevant and suitable in the Indian context.

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So, in summary, in today's lecture, we have discussed the salient points of the National Mineral Policy 2019. This document can be downloaded from the Ministry of Mines

website, along with the ancillary document, which is the PMKKY. That document, as well as the Pradhan Mantri Khanij Kshetra Yojana, is also available in the public domain and can be downloaded from the ministry website. We have discussed the National Mineral Policy, how it targets, guides, or encourages us to think about the sustainable development of the mining and mineral resources industry. So, with this, I conclude today's lecture, and I thank you for your patience.

**SUMMARY**

- Salient points of the national mineral (non-coal and non-fuel) policy, 2019 were discussed.

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