

Introduction to Extractive Industries and Role of SAIs in Extractive Industries

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Session Objectives

The objective of the session is to familiarize the participants about-

- 1) the basic aspects of Extractive Industries (EI),
 - 2) its impact on nation's economy and environment, and
 - 3) the importance of Extractive Industries to SAls.
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Session's Coverage and Documents

- Extractive Industries and their features
- Importance of Extractive Industries to a country
- Role of SAI's in auditing the Extractive Industries
- Extractive Industries and its impact on Environment
- Responsibilities of SAIs
- Audit Focus Areas

Session's Coverage and Documents

- Auditing Mining- Guidance for Supreme Audit Institutions, INTOSAI, 2010
- INTOSAI-WGEI, Training Framework for Audit of Extractive Industries, 2019
- AFROSAI-E, Guideline: Audit Considerations for Extractive Industries, November 2015 and 2019.

Extractive Industries and their features

- Extractive Industries denote any process engaged in the extraction of non-renewable resources.
- It consists of any operations that removes oil, gas, mineral, metal and other aggregates from the earth and/or sea.
- Permission to exploit limited natural resources gives an opportunity to generate super-profit;
- Most countries adhere to the principles that limited natural resources belong to the government and hence lion's share of super-profit;

Extractive Industries and their features

- Extraction of minerals involves high cost, advanced technology and high risks.
- Endowment of natural resources can have significant impact on a nation;
- Requiring a lot of regulations and highly skilled Bureaucracy to manage those regulations;

Extractive Industries and their features

- The value of those resources is inherent- they belong to the people of the country;
- The extraction of natural resources is a very risky activity on environment;
- Government plays a regulatory and monitoring role to mitigate environmental risks;

Importance of Extractive Industries to a country

- The mining and minerals sector is central to modern life in any Country;
- Mining contributes to the development of the economy:
 - taxes from large-scale mining companies;
 - creating direct and indirect employment ;
- Improving human capital through the provision of education and health services;

Importance of Extractive Industries to a country

- Increasing foreign exchange reserves (reducing foreign exchange deficit);
- Improving infrastructure like roads and water supply;
- Creating other economic activities to support the mines instead of importing all supplies from abroad.

Challenges before natural resource rich countries

- Natural resources rich countries should ask themselves:
 - Are we comfortable that Government receives all the revenues that they should from natural resources?
 - Is there reliable information showing natural resource reserve of our country?
 - Does Government adequately fulfills its role in managing and monitoring its resources?

The role of SAIs in auditing the Extractive Industries

- SAIs to facilitate the transparency of government operations;
- SAIs to ensure that an informed public guides the actions of governments in the mining sector;
- SAIs to promote sound financial management and public accountability;
- SAIs can legitimately and credibly evaluate the effectiveness and efficiency of government policy;

The role of SAls in auditing the Extractive Industries

- SAls to report on any unsustainable mining practices;
- Outcomes of an audit on mining will result in improved institutional and stakeholder capacity in the mining sector,
- Recommendations in environmental audit reports to ensure that mining companies take an environmentally and socially responsible approach.

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Extractive Industries- the responsibilities of SAls

- SAls responsibilities require:
 - An understanding of concepts relating to Extractive Industries;
 - Country specific environment
 - International good practices

Extractive Industries value chain- as defined by World Bank

- ✓ Award of Contract and Licenses
- ✓ Regulation and Monitoring of Operations
- ✓ Collection of Taxes and Royalties
- ✓ Revenue management and allocations
- ✓ Implementation of sustainable development policies and projects

Types of Mines

- Four types of mining:
 - **Dredging:** High volume mining technique for low-value products near a plentiful source of water.
 - **Surface Mining:** It is used when deposits of commercially useful rock or minerals are found near the surface.
- ‘Open-Cast’ in soft rock mining like ‘Coal’, ‘Limestone’

Types of Mines

- 'Open-Pit' in hard rock mining like 'Copper' and 'Diamonds'.
- **Underground Mining:** Mining Technique used in hard minerals like Gold, Copper, Zinc, nickel and Lead.
- Sometimes used for softer mineral like coal.
- Access to minerals is through shafts or inclined roadways.
- Depth, extent, quality and geology of the deposit decides the choice.
- **In-Situ Mining:** Solution and Thermal.

View of a open cast mine showing Top soil, overburden



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View of a open cast mine showing Top soil, overburden



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AUDIT FOCUS AREAS

Legal Framework

- Three main types of Legislative requirements:
 - Constitution
 - Legislation
 - Regulations or Instructions

Seismic Surveys and Data Management

- Understanding the process
 - Existence of Database
 - Ownership of Survey Data
 - Environmental Considerations

Award of Contracts and Licenses

- Three main types of Contracts:
 - Production sharing contracts
 - Concession Agreements
 - Technical Service Contracts

Monitoring of Operations

- Metering Equipments
- Health, Security and Environment

Collection of Taxes and Royalties

- Sources of Revenues:

- Taxes

- Royalties

- Specific Risks:

- Theft of Minerals

- Transfer Pricing

Revenue Management and Allocations

- Sustainable Use of Revenues:
 - Avoid Dutch Disease
 - Establishment of Savings Fund

Implementation of Sustainable Policies

- Environmental Concerns:
 - Local Community Involvement.

Backfilling of opencast mines



Reclaimed overburden dump



Afforestation over Overburden dump



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Thank you