

## Introduction to Extractive Industries

About us / EI Auditors Toolkit / [Introduction to Extractive Industries](#)

- What are extractive industries
- Economic and social benefits
- Adversity
- Steps to the EI Value Chain
- Corruption, Illicit Financial Flows
- Artisanal and Small Scale Mining

# EXTRACTIVE INDUSTRIES AUDITOR TOOLKIT

Extractive industries (EI) operate at multiple scales and geographies of production. Fossil fuel extraction (EI) includes on-land and on-sea mining as well as large-scale industrial mining operations for minerals. Extraction methods may include conventional oil extraction on-shore or off-shore, as well as unconventional methods, such as fracking, coal bed methane, or underground coal gasification.

EI can create jobs directly and indirectly and generate significant revenue. Revenue from the EI sector, and mining industries has enormous potential to serve as a financial base for infrastructure development, stimulate economic growth, and lift people out of poverty. Effective governance and oversight of EI may help ensure that these benefits of resource development are realized, and that the resources are extracted in a sustainable manner.

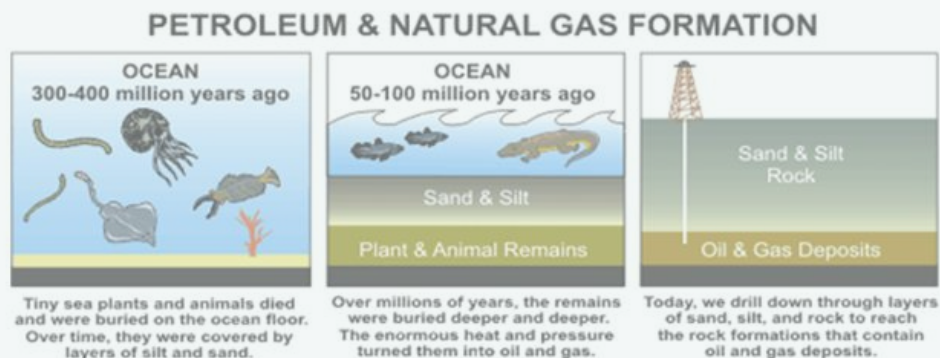
Industries Transparency Initiative, and audit organizations such as AFROSAI-E (African Organization of Supreme Audit Institutions – English).

### What are Extractive Industries?

Extractive industries involve the removal of raw materials from the earth to be used by consumers. These raw materials are processed into products that are used in a wide variety of sectors, including energy, transportation, and manufacturing. The WGEI has defined the scope of its work to include oil, gas, and mining activities.

*Oil and Gas:* According to the [International Human Resources Development Corporation](#) (IHRDC)—an oil and gas industry training company—oil and gas provide the world’s 7 billion people with 60 percent of their daily energy needs. These resources, known as fossil fuels, originated from the decomposition of organic material compressed over millions of years. Oil and gas resources are located both onshore and offshore.

Figure: Oil and Natural Gas Formation



Source: U.S. Energy Information Administration (Public Domain)

*Mining:* Minerals extracted from the ground are critical in many sectors of the world economy, including manufacturing, construction, medicine, and agriculture. For example, metals such as iron, copper, and nickel are often used in home construction, vehicles, and electronic devices. Minerals such as antimony, lithium, and potash are used in medications. Phosphate is used as a fertilizer, and fluoride is found in consumer products, such as ceramics and toothpaste.

Economic and social benefits of extractive industries can be significant.

According to IHRDC, world energy markets are continually expanding, and companies spend billions of dollars annually to maintain and

# EXTRACTIVE INDUSTRIES



# Table of Contents

01	Quality Assurance Certificate of the Goal Chair
02	Quality Assurance Certificate of the Chair of the Working Group
04	List Of Acronyms
05	Foreword
06	Accessing the Extractive Industries Auditor Toolkit



**INTOSAI**

Goal Chairs  
Collaboration  
PSC - CBC - KSC

**Quality Assurance Certificate of the Chair of the Knowledge Sharing and Knowledge Services Committee**

Based on the assurance provided by the **INTOSAI Working Group on Audit of Extractive Industries (WGEI)** and the assessment by the Goal Chair, it is certified that the **Extractive Industries Auditor Toolkit**, which is placed at level **3 (three)** of Quality Assurance as defined in the paper on "Quality Assurance on public goods developed outside Due Process" approved by the INTOSAI Governing Board in November 2017, has been developed by following the Quality Assurance processes as detailed in the Quality Assurance Certificate given by the Working Group Chair.

The product is valid till **30 November 2025** and if it is not reviewed and updated by **30 November 2025**, it will cease to be a public good of INTOSAI developed outside the Due Process.

**Girish Chandra Murmu**  
**Chair of Knowledge Sharing and**  
**Knowledge Services Committee**



## Quality Assurance Certificate

### Chair of the Working Group on Audit of Extractive Industries (WGEI)

This is to certify that ***the Extractive Industries Auditor Toolkit*** which is placed at level ***three*** of Quality Assurance as defined in the paper on "Quality Assurance on Public goods developed outside Due Process" approved by the INTOSAI Governing Board in November 2017 has been developed by following the Quality Assurance processes as detailed below:

- I. Extractive Industry (EI) team made proposal to develop EI Auditor Toolkit at 2016 WGEI meeting in Kenya*
- II. WGEI Steering Committee agreed to develop Extractive Industries (EI) Toolkit under Activity 4 of the WGEI Workplan (2017 – 2019) at the 2017 WGEI Annual Steering Committee Meeting in the United States.*
- III. EI Toolkit Team presented EI Toolkit progress at 2018 Annual Steering Committee Meeting in South Africa seeking their comments.*
- IV. EI Toolkit Team presented English version of draft EI Toolkit to WGEI members at 2019 WGEI All Members' Meeting the Philippines seeking comments.*
- V. EI Toolkit Team translated the EI Toolkit into Spanish and French in 2020 and into Arabic in 2021.*
- VI. WGEI Secretariat transmitted EI Toolkit feedback surveys in English, Spanish, and French to 39 Members in June 2021 seeking their comments*
- VII. EI Toolkit Team received feedback from 19 Members in July 2021, compiled their comments, prioritized and then addressed the comments.*

*VIII. Final draft presented to WGEI Steering Committee for discussion and approval in August 2022. EI Toolkit approved at WGEI Steering Committee meeting in August 2022*

The product developed is consistent with relevant INTOSAI Principles and Standards. The structure of the product is in line with the drafting convention of non-IFPP documents.

The product is valid until November 2025 and if it is not reviewed and updated by November 2025, it will cease to be a public good of INTOSAI developed outside the Due Process.



**JOHN F.S. MUWANGA**

**CHAIR OF THE WORKING GROUP WORKING GROUP ON AUDIT OF EXTRACTIVE INDUSTRIES**

## LIST OF ACRONYMS

AFROSAI-E	African Organisation of Supreme Audit Institutions - English
EI	Extractive Industries
EITI	Extractive Industries Transparency Initiative
IDI	INTOSAI Development Initiative
INTOSAI	International Organisation of Supreme Audit Institutions
SAI	Supreme Audit Institution
SDGs	Sustainable Development Goals
WGEI	Working Group on Audit of Extractive Industries

## FOREWORD

The Working Group on Audit of Extractive Industries (WGEI) was established by the International Organisation of Supreme Audit Institutions (INTOSAI) in 2013. Currently, the WGEI has 43 SAIs as its registered members and two observer members namely INTOSAI Development Initiative (IDI) and The African Organisation of Supreme Audit Institutions (AFROSAI-E). The WGEI in its mandate regarding sharing knowledge and experience in extractive industries (EI) intends to create a web based tool which is a central place for auditors and interested stakeholders to access information on EI. This is expected to provide Supreme Audit Institutions (SAIs) with easy access to information in EI and thereby strengthen their ability to carry out high quality audits in the Extractive Industries (EI) sector, thereby promoting transparency, accountability and good governance of the sector.

During the Annual WGEI Steering Committee meeting that took place in September 2017 in the United States, SAI USA was selected to draft an Extractive Industries Auditor Toolkit to consolidate existing EI guidance for SAIs. It worked from 2018 through 2022 and presented interim updates at WGEI annual meetings. We acknowledge the inputs received from SAI members in developing this EI Auditor Toolkit.

SAI USA developed the EI Auditor Toolkit based on discussions with members and on the value chain of EI. A survey questionnaire was also developed and circulated among member SAIs by the INTOSAI-WGEI secretariat about the profile of Extractive Industries, audit mandate, experience in audit of Extractive Industries, Knowledge and information needs of INTOSAI-WGEI member SAIs to make this EI Auditor Toolkit inclusive and comprehensive.

We feel that it is desirable that member SAIs appoint focal persons in their respective SAIs. These focal persons are expected to bring out needs that will further contribute to improvement of the EI Auditor Toolkit. We welcome feedback on this EI Auditor Toolkit from the member SAIs.

INTOSAI-WGEI acknowledges the support provided by the SAIs of Egypt, Ecuador, Kuwait, United States and ARABOSAI, for their contribution in preparing this EI Auditor Toolkit. Hub The objective of the EI Toolkit is to create an Extractive Industries web based tool with information to assist SAIs carry out high quality audits in the Extractive Industries thereby promoting transparency, accountability, and good governance of the sector. The EI Auditor Toolkit will be used as a resource by SAIs and interested stakeholders, within and outside the INTOSAI, to further their knowledge on audits of extractive industries. This is a living tool which is subject to improvement as and when required.



## ACCESSING THE EXTRACTIVE INDUSTRIES AUDITOR TOOLKIT

The Extractive Industries Auditor Toolkit is an electronic web-based tool and it can be accessed via the link:

<http://www.wgei.org/ei-auditors-toolkit/introduction-to-extractive-industries/>

<https://intosaicommunity.net/wgei/ei-auditors-toolkit/>

# EXTRACTIVE INDUSTRIES



Extractive Industries

Value Chain, Explained

Challenges when Auditing EI

Small-Scale Mining

## Extractive Industries Auditors Toolkit

### Introduction to Extractive Industries



According to the World Bank, about 3 billion people live in Africa alone is home to about 3 billion people. Extractive industries (EI) are used at multiple scales and use a variety of methods. For oil and gas extraction, methods include onshore or off-shore, as well as unconventional methods, such as fracking, methane, or underground coal gasification. Revenue from the oil, gas, and mining industries has tremendous potential to become a financial base for infrastructure development, social service delivery, and to lift people out of poverty. Governance and oversight of EI may help ensure that these benefits of resource development are realized, and that the resources are extracted in a sustainable manner.

Oil, gas, or minerals and these natural resources play a dominant role in the world's economy. The world's oil, and 8% of the world's natural gas. Extractive industries (EI) include small-scale and Artisanal Mining as well as large-scale industrial mining on-shore or off-shore, as well as unconventional methods, such as fracking. Revenue from the oil, gas, and mining industries has tremendous potential to become a financial base for infrastructure development, social service delivery, and to lift people out of poverty. Governance and oversight of EI may help ensure that these benefits of resource development are realized, and that the resources are extracted in a sustainable manner.

These pages provide information for auditors who are new to EI, including links to additional resources by the World Bank, the Extractive Industries Initiative, and audit organizations such as AFROSAI-E (African Organization of Supreme Audit Institutions – English).

#### What are Extractive Industries?

Extractive industries involve the removal of raw materials from the earth to be used by consumers. These raw materials are processed into products through a wide variety of sectors, including energy, transportation, and manufacturing. The WGEI has defined the scope of its work to include oil, gas, and mining.

*Oil and Gas:* According to the International Human Resources Development Corporation (IHRDC)—an oil and gas industry training company—oil and gas provide energy for the world's 7 billion people with 60 percent of their daily energy needs. These resources, known as fossil fuels, originated from the decomposition of organic material compressed over millions of years. Oil and gas resources are located both onshore and offshore.

