

# Introduction to the study and UNFC and UNRMS Overview

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Workshop on Guidelines and best practices for MSMEs to assure resiliency and progress towards a circular economy  
8 October 2020

# An “Extractive” Industry



**Resource production (minerals, oil&gas) is seen as a “drain industry” that “extracts” wealth and leaves behind social and environmental problems.**

- Exponentially increasing material footprint
- Resource depletion
- Carbon footprint
- Water use
- Mounting wastes issues
- Environmental issues
- Diminishing social licence to operate

# COVID-19 induced raw material scarcity



UNEP

## Scarcity of raw material still squeezes N95 mask makers

By MARTHA MENDOZA, JULIET LINDERMAN, THOMAS PEIPERT AND IRENA HWANG September 10, 2020

### What Can The Antibiotic Shortage Teach Us About Weathering API Supply Disruptions?

By Nicole Reynolds, Clarivate

Potential drug shortages have made headlines recently with the ongoing COVID-19 pandemic, with manufacturing companies contending with government-mandated or recommended temporary shutdowns, new



# Based on century-old ideas



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- **Existing standards are based on ideas dating a century or more, when**
  - Resources are thought to be very limited
  - Blind “extraction” was the norm
  - Benefits only stockholder interests
  - Response was essential to number of scams
- **Today, challenges are different**
  - Resources are plentiful, but face mounting social opposition
  - Aligned interest of stockholders and stakeholders
  - Investors are reluctant to invest conventional projects for minerals or petroleum
  - Change from projects to programmes

**Are current policies and industry & regulatory standards, especially for MSMEs, fit for purpose?**

# What is lacking?



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**A tool-kit for sustainable management of resources by governments, industry and other stakeholders.**



# Principles based



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1. Responsibility to the planet
2. Integrated, indivisible management of resources
3. Systems view
4. Social licence to operate
5. Full life cycle view
6. Service orientation

7. Comprehensive resource recovery
8. Circularity
9. Zero waste
10. Zero harm
11. Hybridization
12. Continuous strengthening of core competencies and capabilities.

# United Nations Framework Classification for Resources (UNFC) and United Nations Resource Management System (UNRMS)



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Sold or used production

Production which is unused or consumed in operations

ENVIRONMENTAL-SOCIO-ECONOMIC VIABILITY

TECHNICAL FEASIBILITY

LEVEL OF CONFIDENCE



A unified, comparable, interoperable and harmonized approach to resource assessment and management.

Recommended for global use by ECOSOC decision 2004/233

# UNFC and UNRMS

Consistent classification and management of all resources



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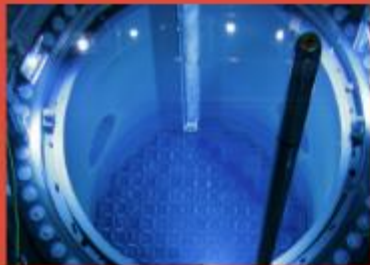
Minerals



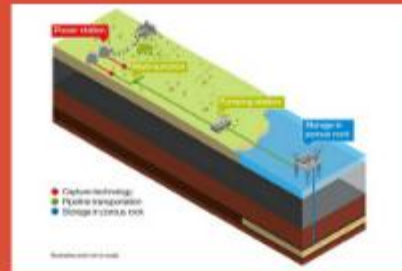
Petroleum



Renewables



Uranium



Injection



Anthropogenic



# Social & environmental considerations

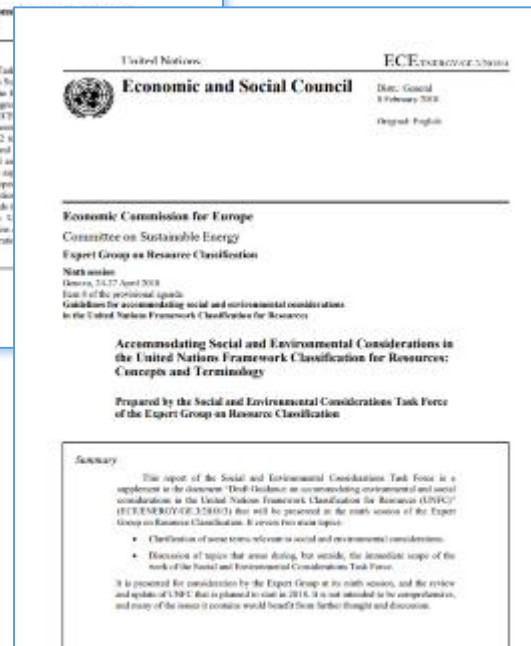
To ensure that externalities are minimized



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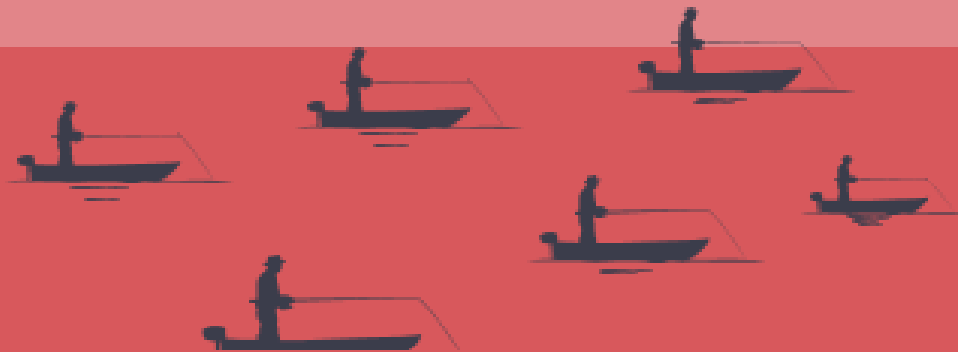
- Expert Group on Resource Management (EGRM) has a Working Group to examine social and environmental aspects of the classification. Guidance notes are available:

1. Accommodating environmental and social considerations in UNFC
2. Clarification of terminology and concepts related to UNFC
3. Principles of resource classification from a social and environmental perspective



A major axis is Environmental-Social-Economic Viability

# Red Ocean vs Blue Ocean



Compete in existing markets

Beg for consumers' attention

Slow and/or stagnant growth

## Blue Ocean Space

Take a unique approach and stand out

Are free from competition

Capture a new demand



# MSME opportunities



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1. Responsibility to the planet

Environment

2. Integrated, indivisible management of resources

Integrated supply chains

3. Systems view

Reducing Carbon Footprint

4. Social licence to operate

Communications

5. Full life cycle view

6. Service orientation

Resource as a Service

7. Comprehensive resource recovery

Explore brown fields with a new perspective

8. Circularity

Recycled materials

9. Zero waste

10. Zero harm

Safety

11. Hybridization

12. Continuous strengthening of core competencies and capabilities.

Innovation

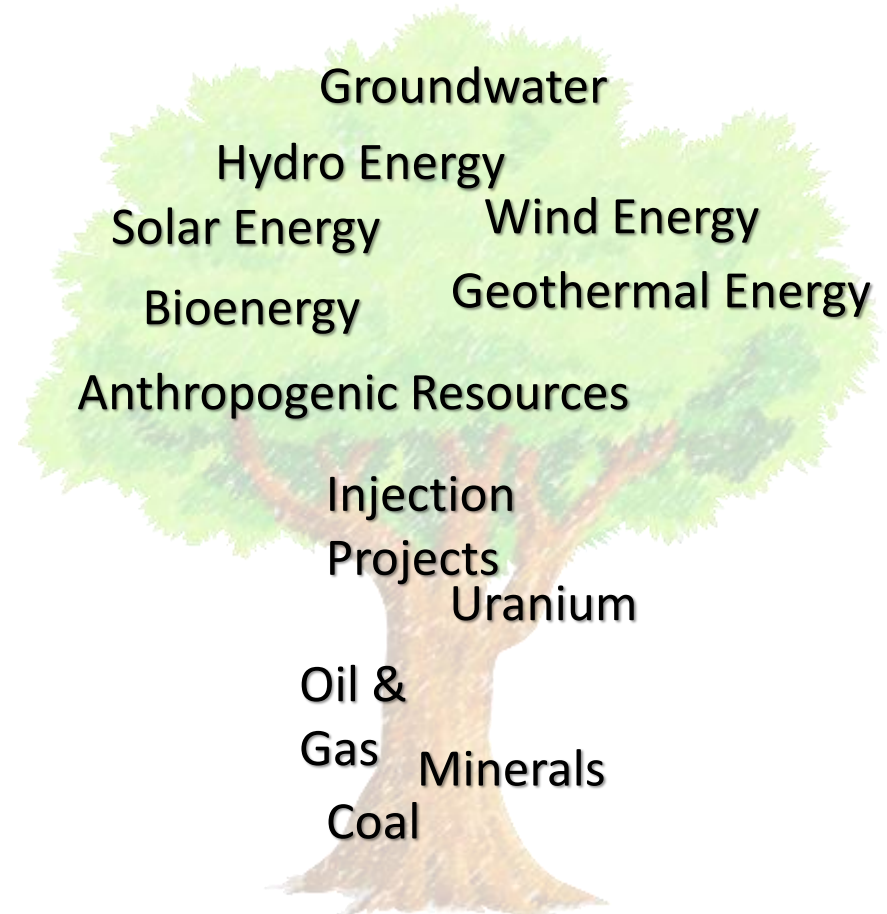
Training

# Embrace integrated resource management



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- **Improve financial resilience through business process innovation**
- **Derive good social, environmental and economic outcomes**
- **Obtain social license to operate**



# UNFC and UNRMS implementation

Developing best practice guidelines for each region



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- **UNFC Europe – European Commission**-led initiative to harmonize raw material resource management, including establishment of centres of excellence.
- **Russian Federation and CIS region** - Eurasian Centre for Sustainable Resource Management
- **UNFC Africa - African Union** has adopted UNFC as the sustainable management, the African Mineral and Energy Resource Classification and management System (AMREC)
- **India, China, Colombia, Mexico, Ukraine**
- Coordinating Committee for Geoscience Programmes in **East and South-east Asia** (CCOP) is planning International Centre of Excellence for the region



# Thank you

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