



# THE UNFC E-AXIS SOCIO-ECONOMIC VIABILITY


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# SOCIO-ECONOMIC FACTORS

- The Socio-Economic E-Axis is described in the UNFC as:
  - “... designates the degree of favorability of social and economic conditions in establishing the commercial viability of the project, including consideration of market prices and relevant legal, regulatory, environmental and contractual conditions.”
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# 5<sup>TH</sup> SESSION OF THE EGRC, 2015

- The 5<sup>th</sup> session of the EGRC recommended the formation of an E-axis subgroup, to prepare guidance on accommodating environmental and social considerations in UNFC-2009
- Noted that these involve many diverse and complex issues. ... a wide range of material is already available ... requested that any guidance produced should revolve around high-level principles ...
  - NOTE. There is a “wide range of material”, but not on classification!
- Following the 8<sup>th</sup> session of the EGRC, the E-axis Subgroup was re-established as the Social and Environmental Considerations Task Force (SECTF)

# THE IMPACT OF “SOCIO-ENVIRONMENTAL” ISSUES

- **Positive:** raw materials, revenue from taxes and royalties, J\jobs
- **Negative:** degradation of the environment, disruptive effect on local society
- Social and environmental considerations can lead to legal, contractual, environmental, and/or government approval issues that affect the timing and implementation of a project:
  - Access to market
  - Construction of or access to production and transportation facilities
  - Internal and external approval
  - Access to financing



# FACTORS IN CLASSIFICATION

- ▶ The implementation of a project depends on many factors. The factors that govern assignment to UNFC Classes, Categories and Sub-Categories are described as Contingencies
- ▶ Historically, resource classification has considered only those factors that have an immediate effect on the extraction activities - the INTERNALITIES:
  - ▶ Factors that are under the control of an operator, and directly affect the commercial (including economic) viability of a project.
- ▶ Increasing emphasis on broader factors, the social and environmental impacts – the EXTERNALITIES:
  - ▶ The cost or benefit that affects a party who did not choose to incur that cost or benefit. (Wikipedia)

# EXTERNALITIES AND INTERNALITIES

➤ Greatly simplified illustrative table:

	COSTS		BENEFITS	
	OPERATOR	SOCIETY	OPERATOR	SOCIETY
INTERNALITY	Capex, Opex	X	Profits from sales	X
EXTERNALITY	X	Social and Environmental	X	Raw material, Revenue from Taxes, Royalties, Jobs

Different perspectives on social and environmental (possibly economic) issues could result in differences in classification.





# E-AXIS SUB-CATEGORY E1

- ▶ **E1**, Commercial: discovered, with a known recovery process and economically viable.
- ▶ Sub-categories:
  - ▶ **E1.1** Extraction and sale is economic on the basis of current market conditions and realistic assumptions of future market conditions.
  - ▶ **E1.2** Extraction and sale is not economic on the basis of current market conditions and realistic assumptions of future market conditions, but is made viable through government subsidies and/or other considerations.



## E-AXIS SUB-CATEGORY E2

- **E2**, “Expected to become economically viable in the foreseeable future”.
  - There are currently no sub-categories.





## E-AXIS SUB-CATEGORY E3

- ▶ E3, “Extraction and sale is not expected to become economically viable in the foreseeable future or evaluation is at too early a stage to determine economic viability.”
  - ▶ E3.1, Quantities that are forecast to be extracted but, which will not be available for sale.
  - ▶ E3.2, Economic viability of extraction cannot yet be determined due to insufficient information (e.g. during the exploration phase).
  - ▶ E3.3, On the basis of reasonable assumptions of future market conditions, it is currently considered that there are not reasonable prospects for economic extraction and sale in the foreseeable future.



# CURRENT GUIDANCE

- ▶ F-AXIS and G-AXIS
  - ▶ Considerable guidance and well-developed resource-specific practice
- ▶ E-AXIS (Socio-Economic):
  - ▶ Economic conditions
    - ▶ Considerable guidance and well-developed resource-specific practice
  - ▶ Social (and environmental) conditions
    - ▶ Cited as a factor in most resource-specific guidelines
    - ▶ But no significant guidance
    - ▶ Many factors common for all types of resource



# RESOURCE SPECIFIC GUIDANCE

- Recognised by UNFC
  - Oil and Gas: SPE PRMS (Petroleum Resource Management System)
  - Minerals: CRIRSCO Template
  - Uranium and Thorium: NEA/IAEA Red Book
- Others
  - COGEH, NPD, SAMREC, JORC, NI 43-101, SEC, ESMA, PERC, etc.
- All recognise Socio-Environmental factors (not necessarily by that name), but there is no significant guidance regarding classification

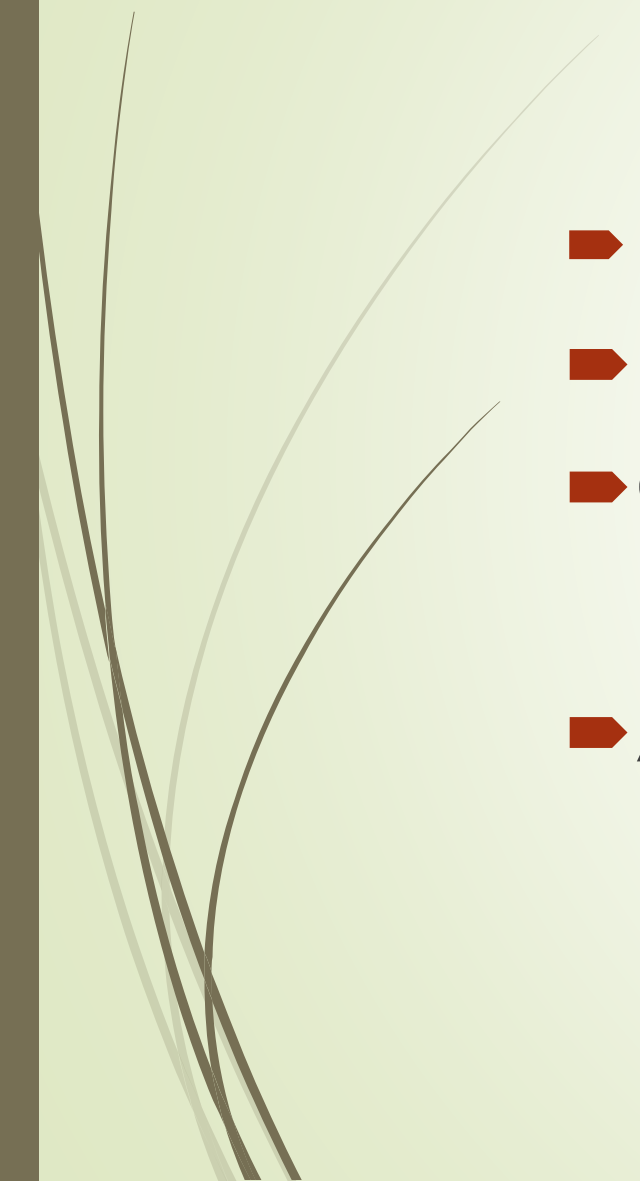


# SOCIAL AND ENVIRONMENTAL CONSIDERATIONS TASK FORCE REPORTS, 2018

- Draft guidance on accommodating environmental and social considerations in the United Nations Framework Classification
- Report on Concepts and Terminology
- To be presented and discussed at the EGRC meeting.



# SUB-GROUP REPORT: MAIN CONCLUSIONS

- High level guidance
  - Detailed guidelines
  - Concepts and terminology
  
  - All of these need further development
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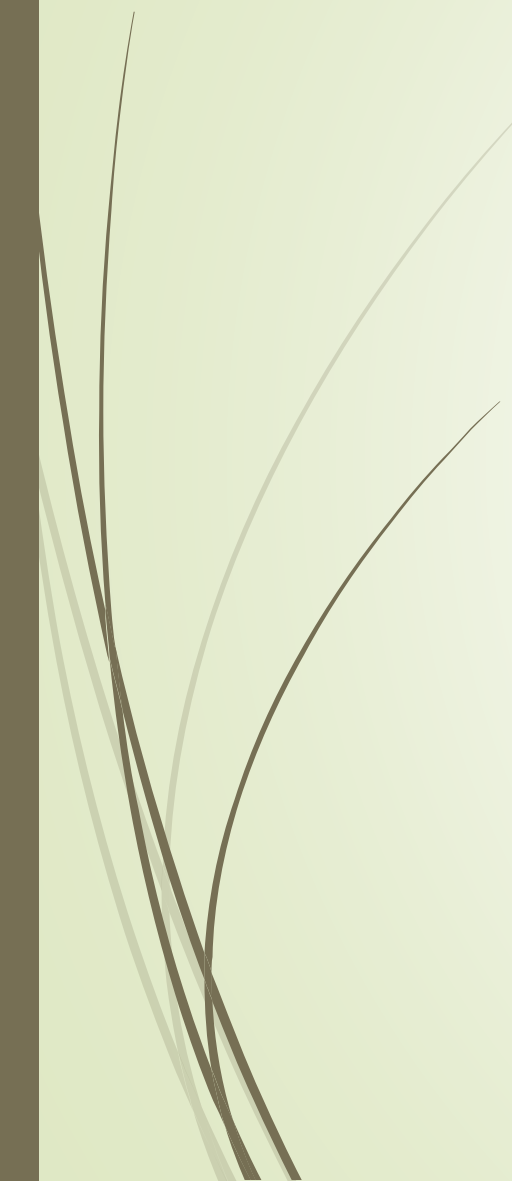
# E-AXIS SUB-CATEGORIES

- ▶ For all Sub-categories, replace “economically viable” with “economically, socially and environmentally viable”
- ▶ E.1 and E.3 No other changes being considered
- ▶ E2, Attempts to resolve contingencies with:
  - ▶ E2.1 High probability of resolution
  - ▶ E2.2 Medium probability of resolution
  - ▶ (E3.3 Low probability of resolution)





# SOCIAL LICENCE

- ▶ Several “definitions”, in summary:
    - ▶ Resolution of activities that could delay or prevent a project, by agencies inside or outside a formal legal and regulatory process.
  - ▶ For Classification:
    - ▶ Not recommended as a classification term because it is uncertain as to what it could include.
    - ▶ Use specific criteria (e.g., regulatory approval, etc.)
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# FORMAL AND NON-FORMAL CONDITIONS (Contingencies)

- ▶ FORMAL legal and regulatory processes:
  - ▶ E.g., environmental approval or a licence to drill, or to mine.
- ▶ NON-FORMAL, outside a formal legal or regulatory process:
  - ▶ Could be a result of concerns of local communities about the impact of a mineral recovery project, or of organisations that would not be directly affected but who have concerns of a more general nature.
  - ▶ Harder to determine how to classify.



# POSSIBLE TERMS OF REFERENCE FOR FUTURE WORK

- ▶ Prepare more detailed non-resource specific social and environmental guidelines
- ▶ Work with resource-specific EGRC Working Groups to:
  - ▶ Ensure consistency with detailed resource-specific E-axis guidance.
  - ▶ Consider the guidelines needed for the UNFC to meet the UN Sustainable Development Goals (SDGs)
  - ▶ Prepare case studies
- ▶ Clarify related terms and concepts as relevant.
  - ▶ Although focused on environmental and social issues, consider how these integrate with E-axis economic issues and with related F and G-axes issues.