



# THE UNFC E-AXIS SOCIO-ECONOMIC VIABILITY

Dr. David Elliott

Chair, EGRC Social and Environmental Considerations Task Force

Presented by Mr. Michael Lynch-Bell

A dark blue arrow points to the right from the left edge of the slide. Several thin, curved lines in shades of blue and grey originate from the left side and sweep across the page towards the right.

# OUTLINE

- ▶ INTRODUCTION
- ▶ CURRENT SITUATION
- ▶ CONCLUSIONS
  - ▶ TERMINOLOGY AND CONCEPTS
  - ▶ REVISIONS TO THE UNFC
- ▶ FURTHER WORK



# THE SOCIAL AND ENVIRONMENTAL IMPACT OF PROJECTS

- ▶ Project development:
  - ▶ Can have negative social and environmental consequences, e.g., degradation of the environment, disruptive effect on society
  - ▶ But there are positive consequences, e.g. raw materials, revenue from taxes and royalties, jobs
- ▶ Social and environmental considerations can lead to legal, contractual, environmental, and/or government approval and other issues that affect the timing and implementation of a project:
  - ▶ Access to market, production and transportation facilities, internal and external approvals, access to financing, etc.



# THE IMPACT OF SOCIO-ENVIRONMENTAL FACTORS

- ▶ USA. 7 to 10 years to get mining permits. (NMA Study, Permitting, Economic Value and Mining in the United States, 2015)
- ▶ Peru. Delay of \$21.5 billion worth of mining projects in recent years. (EI Economista reports).
- ▶ Canada. 35 projects, worth \$129 billion, stalled or cancelled due to opposition from environmental, aboriginal and/or community groups. (Financial Post, Dec. 2016)
- ▶ USA. Over 350 green energy projects were delayed or abandoned ... economic impact of these projects estimated at about \$1.1 trillion in GDP and 1.9 million jobs a year. (U.S. Chamber of Commerce, 2011)
- ▶ UK, 32 out of 66 applications for onshore wind farms were rejected in 2010. (Courtesy Dr. P. Pappas)



# 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.”



# SOCIAL AND ENVIRONMENTAL CONSIDERATIONS TASK FORCE

- Mandate is with regard to social and environmental factors, not economic
- Steps
  - Collect and compile relevant information
  - Review and analyse this information
  - Identify and define E-axis factors
  - Develop High Level Guidance
  - Recommend approach to developing Detailed Guidance

# NON-ECONOMIC E-AXIS CONTINGENCIES

In UNFC and elsewhere

- ▶ Legal framework. The right to produce and sell or benefit from a resource. Not a contingency unless unsettled or in dispute.
- ▶ Fiscal framework and Contractual conditions? (taxes, royalties, etc.)?
- ▶ Regulatory approvals.
- ▶ Environmental or social impediments or barriers.
  - ▶ Even if they are known to exist, there can be significant uncertainty as to the likelihood of their resolution.
  - ▶ May include:
    - ▶ Issues of interest to a local community
    - ▶ Civil unrest
    - ▶ War
    - ▶ Political (in PRMS)



# INTERNAL AND EXTERNAL FACTORS

- ▶ INTERNALITIES: Factors that are under the control of an operator, and directly affect the commercial viability of a project.
  - ▶ E.g., Capex, Opex, etc.
- ▶ EXTERNALITIES: “The cost or benefit that affects a party who did not choose to incur that cost or benefit.” (Wikipedia)
  - ▶ E.g., Increased noisy traffic, heavy metal emissions, etc.
- ▶ **Projects must increasingly consider factors that were previously considered to be externalities**





# E-AXIS CATEGORIES

- ▶ **E1.** “Commercial: discovered, with a known recovery process and economically viable.”
  - ▶ E1.1 ... economic.
  - ▶ E1.2 ... not economic ... but viable through government subsidies and/or other considerations.
- ▶ **E2.** “Expected to become economically viable in the foreseeable future”. No sub-categories.
- ▶ **E3.** “...not expected to become economically viable ... or... at too early a stage to determine economic viability.”
  - ▶ E3.1 ...extracted ... not be available for sale.
  - ▶ E3.2. ... viability cannot yet be determined due to insufficient information
  - ▶ E3.3. ... not reasonable prospects for economic extraction and sale ...



# CURRENT GUIDANCE

- ▶ F-AXIS and G-AXIS, E-AXIS (Economic):
  - ▶ Considerable guidance and well-developed commodity-specific practice
- ▶ E-AXIS (Social and environmental conditions):
  - ▶ Cited in most commodity-specific guidelines
  - ▶ But no significant guidance on classification



# COMMODITY 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, NI 43-101, SEC/FASB, ESMA, etc.
- ▶ All recognise Socio-Environmental factors (not necessarily by that name), but there is no significant guidance regarding classification

A decorative graphic on the left side of the slide. It features a dark blue vertical bar on the far left. A black arrow points to the right from the top of this bar. Below the arrow, several thin, curved lines in shades of blue and grey sweep across the page, creating a dynamic, abstract background element.

## 2018 TASK FORCE REPORTS

- ▶ Draft guidelines for accommodating environmental and social considerations in the United Nations Framework Classification for Resources.
- ▶ Accommodating Social and Environmental Considerations in the United Nations Framework Classification for Resources: Concepts and Terminology.

A decorative graphic on the left side of the slide. It features a dark blue arrow pointing right at the top, with several thin, curved lines in shades of blue and grey extending downwards and to the right from its base.

# CONCLUSIONS AND RECOMMENATIONS

- ▶ There is no significant current guidance regarding classification with regard to Socio-Environmental factors.
- ▶ Many of these factors are common to all types of resource
- ▶ Some commodity-specific
- ▶ Recommendations
  - ▶ High level guidance
  - ▶ Revisions to the E-axis
  - ▶ Clarification of concepts and terminology
  - ▶ Future work



# SECTF FUTURE WORK

- SECTF to develop non-commodity specific guidance (SECTF mandate did not include development of detailed guidance of the level found in PRMS, CRIRSCO, etc.)
- Support the development of guidelines, case studies, and best practices documents for the practical application of the guidance in consultation with the various sectoral Working Groups.
- Develop guidelines for UNFC to conform with the UN SDGs.