
Producing and using science for decision making

Science, Technology and Innovation (STI) Training, Oct. 2022

Rachel Kosse, UNEP

Producing science for decision-making

Guidelines for conducting Integrated Environmental Assessments



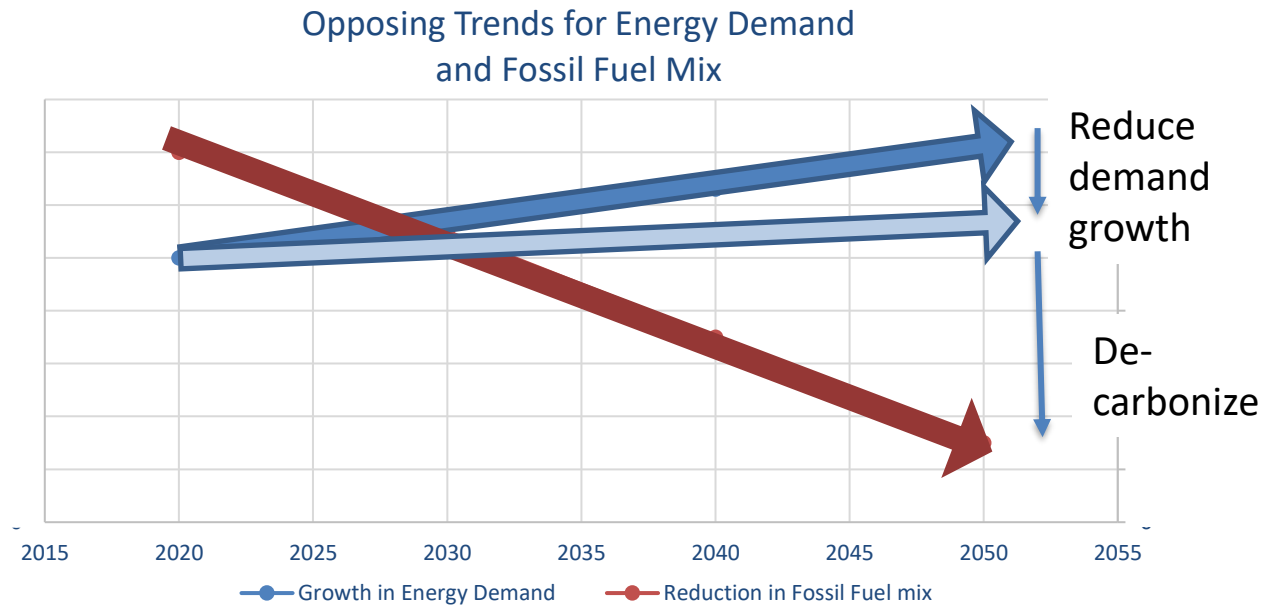
Environmental challenges

- Complex, systemic problems with human and planetary health impacts.
- Economic and social impacts, both from the environmental issues themselves but also the mitigation measures.
- Problems of collective action, either overuse of resource or pollution created by a large population.
- Solutions typically require collective action.

Clear policy goals

Defining the policy question

- Science helps define the problem. Provides the ‘what?’ and the ‘by when?’ of the policy question.
- Policy analysis, social science, economic analysis provides the ‘how’.
- Engaging the different affected groups helps enable the ‘how’.
- Creating partnerships for implementation will likely broaden the engagement of different actors.
- Designing policies with multiple benefits for different actors usually deepens the commitment.



Relevance, legitimacy and credibility

Policymakers and scientists

- Typically speak 'different language'.
- Have different needs when producing science for decision making.
- Policymakers need science that can be directly applied to their policy problem (relevant, salient)
- To encourage collective action, science must be viewed as legitimate (independent, views are geographically and gender balanced).
- Scientists must be seen to produce evidence through a credible process (peer reviews, published, etc.)

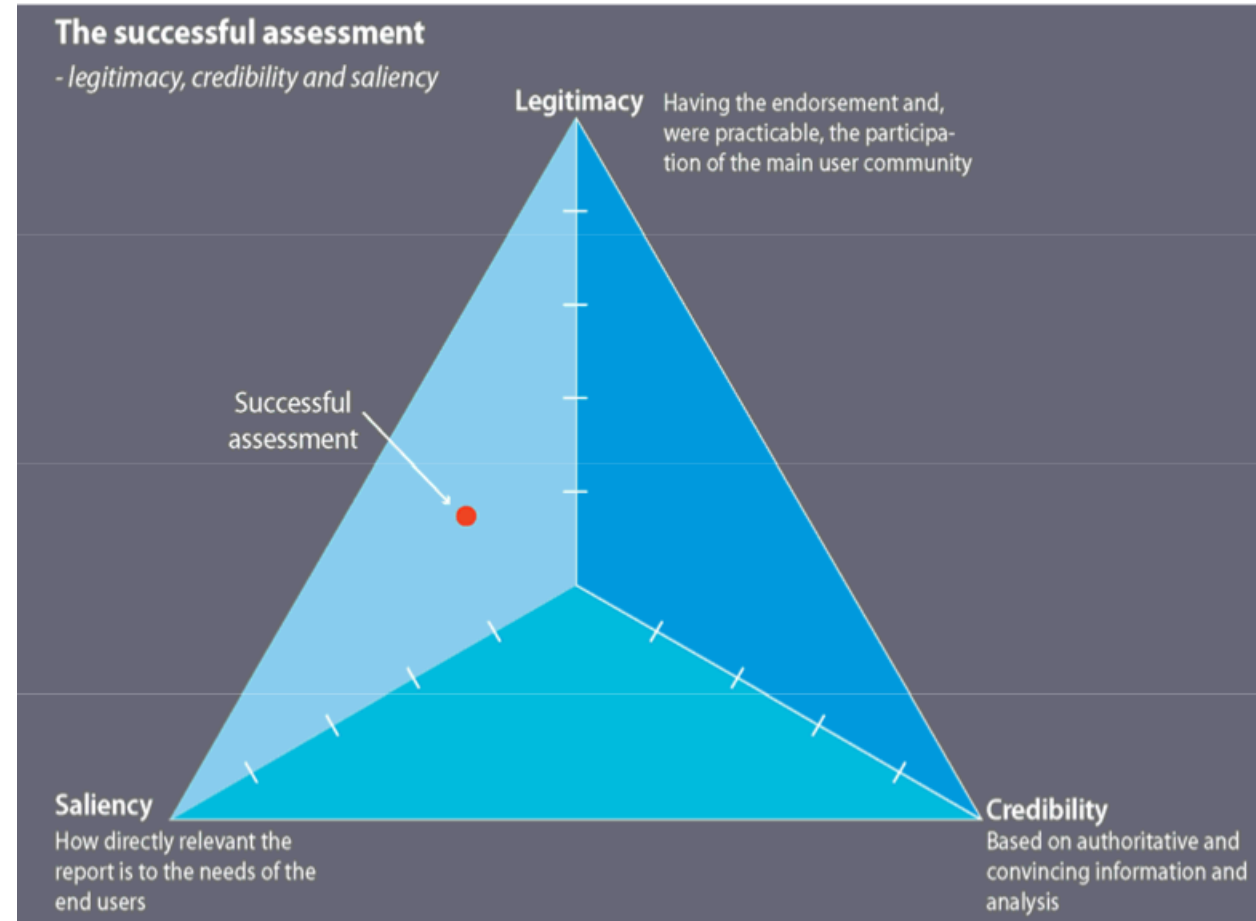


Figure 2.1: Legitimacy, Credibility, Saliency model (adapted from Cash *et al.* 2002)

Adjustments needed as process moves on



Differences of opinion, changes in approach

- Empirical scientists, social scientists work in different ways.
- Differing interpretations across different groups of scientists.
- Reconciling science from different published literature.
- ‘Assessing’ existing literature rather than conducting new research.
- Creating a compelling narrative rather than a scientific paper.
- Using other visuals effectively (graphics, maps, multimedia)



Thank you

Contact: rachel.kosse@un.org