
Producing and using science for decision making

Science, Technology and Innovation (STI) Capacity building, Addis Ababa February 2023

Ignacio Sanchez, UNEP

Introduction

¿Who pollutes more?



Introduction

¿Who



RECETA HÍDRICA DE UNA HAMBURGUESA

Una hamburguesa de unos 350gr requiere una media global de 2.392,12 litros de agua repartidos del siguiente

HAMBURGUESA 350GR



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Producing science for decision-making

Guidelines for conducting Integrated Environmental Assessments



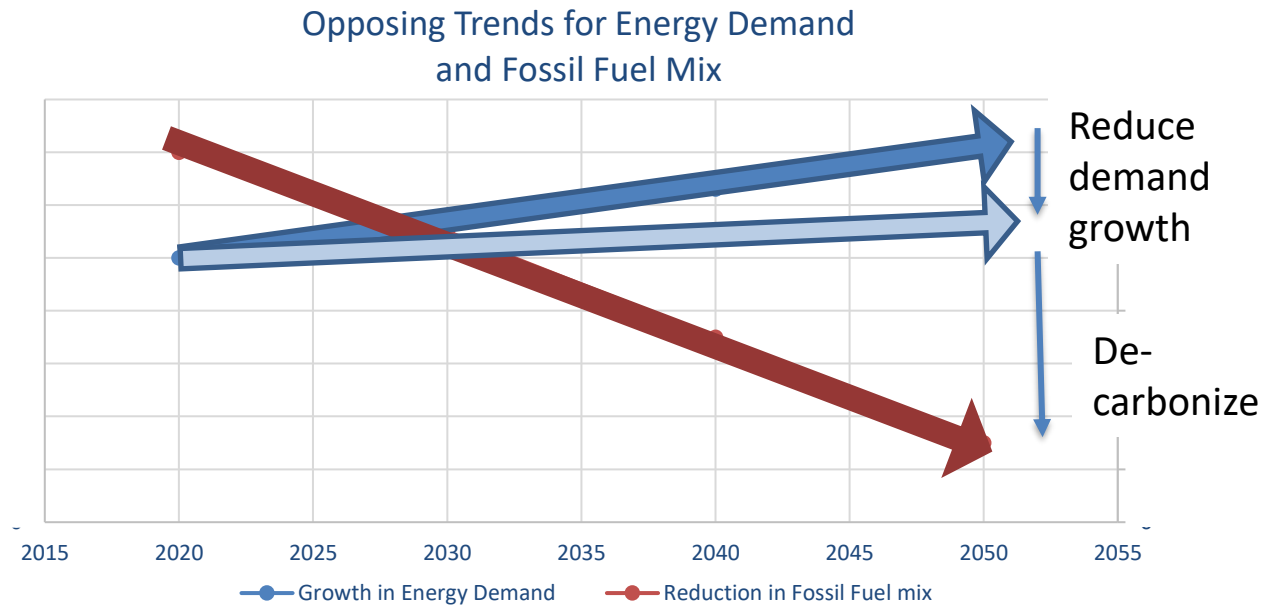
Environmental challenges

- 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.)

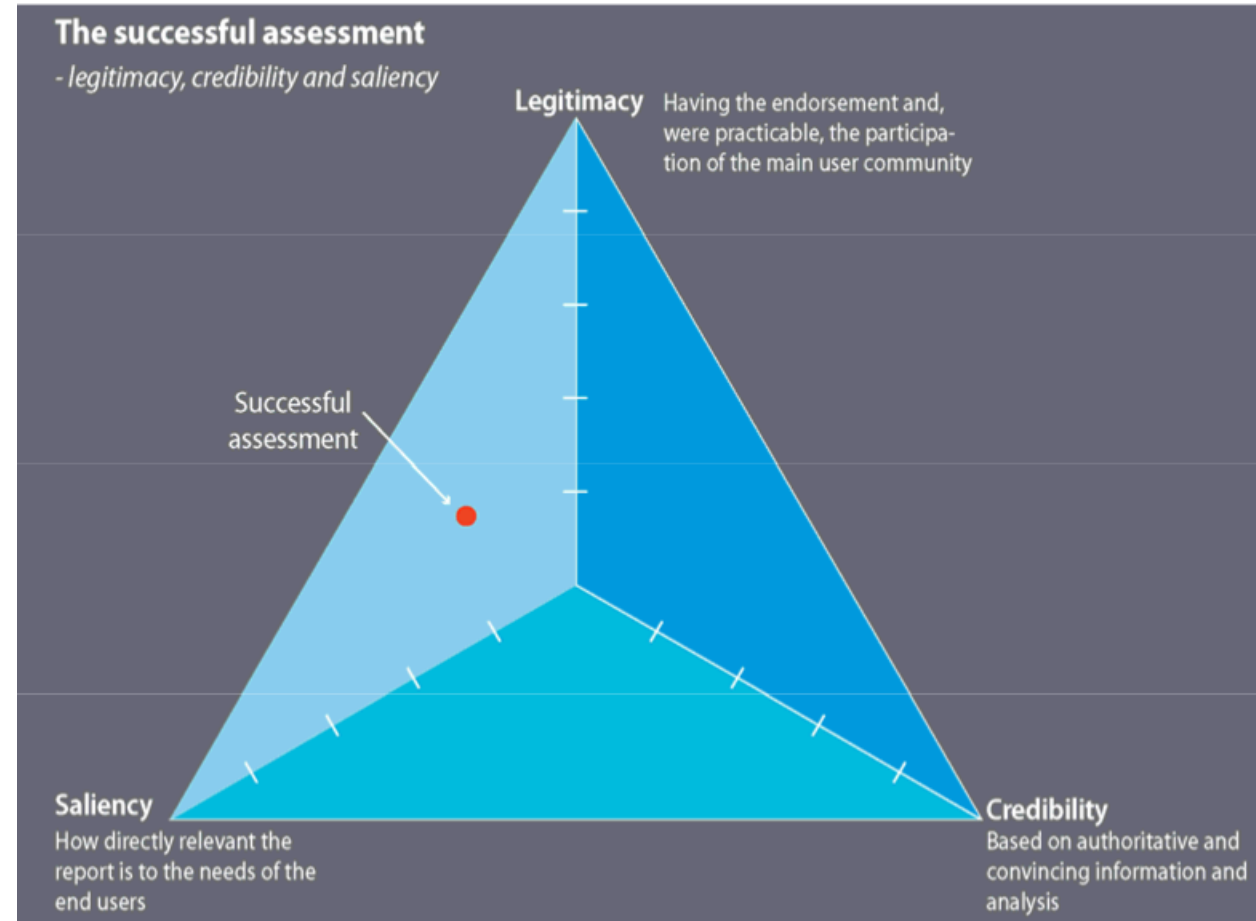


Figure 2.1: Legitimacy, Credibility, Saliency model (adapted from Cash *et al.* 2002)

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: ignacio.sanchez@un.org