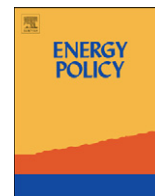




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Defining energy security takes more than asking around

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ABSTRACT

The recent contribution by Benjamin Sovacool proposes 20 dimensions and 320 indicators of energy security in Asia. However, the method for identifying these dimensions and indicators – 64 semi-structured interviews – has three shortcomings. First, Asian policy makers responsible for energy security are absent from the pool of respondents dominated by academics. Second, no prioritization or contextualization of energy security concerns is attempted, leading to an excessively long generic list. Third, no disagreements between the interviewed experts are accounted for. Future attempts to define energy security based on perceptions should involve relevant social actors, include mechanisms for discriminating between primary and secondary concerns and find ways to constructively report on disagreements.

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There are two epistemologically different approaches to defining energy security. The first is analysis of energy systems to identify their vulnerabilities. This method can be criticized for ignoring the “subjective” side of energy security: the fact that it is shaped by perceptions as much as by objectively measured risks. The second approach is to address the weakness of the first one by defining energy security through investigating such perceptions.

Benjamin Sovacool follows this second approach in his Forum contribution (Sovacool 2011). As a result he proposes 320 indicators (including e.g. “cadmium emissions” and “number of patents”) categorized into 20 dimensions of energy security. He arrives at this result by conducting interviews with 64 individuals who were asked three open-ended questions: “what are the most significant energy security challenges facing Asia?; which dimensions of energy security are most important to Asian countries?; and what metrics and indicators best capture these dimensions?”. There are three serious methodological problems with this approach:

(1) To begin with, although the study focuses on energy security in Asia it does not include a single interview with a representative of an organization responsible for energy security in an Asian country. In fact, a largest group among the interviewees were Western academics. More specifically, the

breakdown of organizations represented by interviewees is as follows:

- 28 (68%) – academic and research organizations of which one-half were from the EU countries, North America and New Zealand;
 - 8 (20%) – intergovernmental organization, only 3 of which – ASEAN, the European Commission, and the International Energy Agency – deal with energy security (although not necessarily in Asia);
 - 4 (10%) – governmental organizations, of which 2 from the US, 1 from the Netherlands and only 1 from Asia (the Atomic Energy Commission from India);
 - 1 international NGO focused on renewable energy and energy efficiency and headquartered in Austria.
- (2) Secondly, the open-ended indiscriminating questions asked in the interviews did not seem to enforce prioritization among energy security challenges. Such a setup was very likely to encourage an excessively broad definition of the concept. Indeed, in complex and open energy systems where everything is connected to everything else any little factor is likely to be at least somehow relevant to energy security. Naturally, the more people with diverse backgrounds are asked, the more ‘dimensions’ or ‘indicators’ are mentioned. This is especially true with academics who made up the largest share of the interviewees. Academics are trained for noticing new connections and identifying novel angles to look at the world. They are rewarded for portraying their own areas of studies as being of universal significance. (Thus, if one asks an environmental or a social scientist about energy security one would almost certainly hear that it has environmental or social aspects.).

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Academics are also rarely constrained by the practicality or policy relevance of their theories, which can make their views potentially abstract and arbitrary.

- (3) This does not mean that opinions of academics are irrelevant. A productive academic process combines the intellectual risk taking (i.e. broad novel thinking) with critical evidence-based debate, trials or experiments, which ensure that unsubstantiated theories and concepts are filtered out. In fact, it was exactly such debate that took place in the November 2009 workshop on energy security in Singapore, which is reported in Sovacool's contribution as the main 'expert event' where the dimensions of energy security were coined. I was one of the workshop's participants and remember vivid disagreements among experts, particularly on the relationship between climate change and energy security. Sovacool does not mention such disagreements, but instead presents both 'pollution' and 'greenhouse gas emissions' as definite dimensions of energy security.

In summary, the 20 dimensions and 320 indicators reflect opinions of experts, the majority of whom are not involved in energy security policy in Asia, not accounting for expert disagreements or differentiating between countries and contexts. This concept of energy security is less rigorous and logical than those derived from 'objective' system analyses, but it equally fails to account for key perceptions of the main social actors.

And yet, the goal of defining energy security based on empirically observed perspectives remains valid. The way to achieve this goal is to continue the inquiry started by Benjamin Sovacool upholding the standards of a social science namely

1. Focus on those opinions that matter: e.g. policy makers and other social actors who cannot afford to hold irrelevant or superfluous views;
2. Construct surveys and interviews so as to force prioritization. Ask what should be "excluded", not only what should be "included". Supplement evidence obtained by interviews by the analysis of preferences expressed in other discourses (e.g. policy documents, media). Separate rhetoric from reality by examining trade-offs and prioritization reflected in such evidence.
3. Highlight rather than glaze over disagreements. Find out, including through direct questioning, whether the proposed dimensions of energy security are relevant in all or only in some contexts and situations. Such disagreements may signal that energy security is context-dependent, a view widely held by both academic and policy community.

References

- Sovacool, B., 2011. Evaluating energy security in the Asia Pacific: towards a more comprehensive approach. *Energy Policy* 39 (11), 7472–7479.