

10 | Absentee expertise: science advice for biotechnology regulation in developing countries

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Introduction

Uncertainties and potential controversies surround the spread of biotechnology to developing countries. In rather different quarters it has been suggested that developing countries lack the capacity and relevant scientific expertise to develop regulation of biotechnology that addresses issues of biosafety, food safety and property regimes. Contingent upon one's view, the central point of concern is incapacity to control the risks of an unregulated spread of, for example, genetically modified organisms (GMOs), or the fear that lack of regulation may exclude developing countries from the potential benefits of new biotechnologies. In this situation of uncertainty and potential controversy, both national and international politicians and regulators turn to experts for advice to assist decision-making. Generating cognitive consensus and codifying this consensus in laws and regulations, standards and guidelines, and definitions of best practice are seen as first steps towards reaching normative consensus about controversial 'technical' issues.

Many international organizations are currently working to increase developing countries' 'capabilities' to regulate biotechnology. Their work involves the modelling of regulations – for example, drafting model biosafety laws or model intellectual property laws; the development of global regulatory regimes; and the transfer of knowledge about how to regulate and how to train regulators. Much of the required work is carried out by groups of experts, who give scientific advice to decision-makers and support policy processes. International organizations such as the United Nations Environment Programme (UNEP) and the Food and Agriculture Organization of the United Nations (FAO) set up groups of science advisers to create consensus about best practice, to advise on regulatory frameworks and to build regulatory capacity in developing countries.

The mandate, number of meetings and lifetime of these expert committees in the field of biotechnology regulation vary enormously. Some are *ad hoc* committees (including those that meet only once), while others are standing committees. Their work, however, is never uncontroversial,

particularly because science advice operates within the rather problematic area between science and politics. The controversial character comes to the fore in the process of composing expert groups within the United Nations system. Should the composition of advisory groups give weight to geographical representation in the selection of experts (paying due attention to equal participation from developing countries) or should those scientists be selected who have a long record of publications in international journals and whose work has been scrutinized by peer review (which entails a geographical bias)? (See Frosch et al. 2002.)

This chapter explores how the social construction of knowledge and the structuring of inequalities – issues of major concern in the sociology of scientific knowledge and in development studies respectively – underlie this practical question of how to compose expert committees for science advice in the United Nations system. The main focus is on international groups of science advisers that meet to develop biotechnology regulation, especially in the FAO and UNEP. It will be argued that problems of such advisory groups couched in terms of their lack of expertise, or ‘missing expertise’, obscure problems related to the notion of ‘absentee expertise’, i.e. expertise which, detached from local contexts, prepares future regulatory frameworks.

Science advice: a third category

The dichotomy between ‘scientific expertise/truth’ and ‘policy/politics’ still clouds efforts to understand science advice at the international level. Exemplary is Grundmann’s (1996) critique of the concept of ‘epistemic communities’, introduced to the field of international relations theory by Haas (1989, 1992). For Haas, epistemic communities are nationwide or worldwide groups of professionals that articulate the cause-and-effect relationships associated with complex problems, frame the issues for collective debate and propose specific policies. These experts share common values and believe in the same relationships and tests of their truth.¹ Grundmann questions this concept, particularly the idea that consensus-making is an inherent, non-conflictive characteristic of epistemic communities. Consensual knowledge is not a necessary condition for epistemic communities to exist and work, and, furthermore, Haas’s suggestion that through epistemic communities ‘reason’ may defeat economic interests in policy-making does not hold (Grundmann 1996). Haas and Grundmann, in fact, take ultimately opposed positions regarding epistemic communities. Haas identifies them as similar to scientific research groups, albeit having become involved in a political enterprise. Grundmann, in contrast, denies the centrality of cognitive elements, pointing instead to power relations between resource-

mobilizing actors – although this makes it difficult to distinguish epistemic communities from any other form of social group.

The lessons of science studies in the last few decades deny the likelihood that scientists in international expertise networks simply translate technical/scientific arguments into policy advice and regulatory frameworks. It is equally problematic, however, to consider international expertise networks as simply instruments for translating economic interests and hegemonic power. Both Haas and Grundmann to a large extent neglect the complex combinations of internal and external factors and processes that shape the knowledge constructs emerging from scientific advisory committees. An alternative model conceptualizes the epistemic community as a social category constituted by both cognitive dimensions and social shaping, including by political interests. Furthermore, knowledge is clearly not neutral or like a natural thing, waiting out there to be collected by laborious scientists just as bees collect honey, but is socially constructed or shaped. The views and standpoints of epistemic community members have social origins, conditioned by the institutions in which they work as well as wider ideologies and paradigms. The selected and condensed information about biotechnology, genes or risks in expert advice is therefore laden with norms, beliefs and views. In other words, expert advice interweaves both facts and values.

Notably, scientific advisory committees exist not because of their scientific value but because of their political and regulatory value. They legitimize political decisions – since expert recommendations tend to be recognized as neutral, independent statements of truth – and they set standards to foster economic activity and technological innovation. This distinguishes them from the model of the objective and independent scientist, whose only activity is to describe nature and explain natural laws and mechanisms. Unlike ordinary scientific groups, advisory epistemic communities have the specific task of ordering, selecting and filtering information, and of developing system knowledge instead of reductionist scientific knowledge. In contrast to experimental research, which creates closed systems, the epistemic community operates in the open systems of the real, messy world, where the number of contingencies is much larger. Despite uncertainties, unknowns and contrasting perspectives from very different disciplines, standards have to be set, advice has to be given and policies have to be issued. Science advisers have to come up with policy recommendations, and not with proposals for new research or scientifically interesting (but in terms of current policy problems irrelevant) knowledge.

Epistemic communities of science advisers also differ from political groups and policy-making communities with regard to their authority