

Adequacy The role of criteria of adequacy is to permit the accumulation of certified “facts,” thus providing what historian Oscar Handlin (1979, 408) has called the “grounds for peaceful discourse.” Two potential uses of such criteria stand out as particularly relevant for efforts to link knowledge with action in the management of global environmental risks. The first is the simple posting of known pitfalls: methodological blunders and inappropriate use of data that immediately vitiate any assessment that fails to avoid them. The second is the channeling of disputes into well-defined categories where focused and informed discussion can be carried out.

Value The role of criteria of value is to help channel inquiry into important areas where it has some prospect of making contributions that extend beyond the immediate gratification of those performing the inquiry. At one level, such criteria address such commonsense notions of worth or relevance. At another, somewhat deeper level, they include evaluations of feasibility, encompassing exhortations from a number of fields that temper inclinations to attack only the really important problems with due respect for “the art of the possible.” Without well-developed criteria of value to root intellectual activity in issues of the world, there is a great tendency to concentrate on what John Passmore has called the “charmed circle” of presently exciting problems. There is also little defense against the *internal* criteria of adequacy developed by some intellectual field displacing any external social reference point in the evaluation of good work.

Legitimacy As Lindblom has noted, “A deep conflict runs through common attitudes to policymaking. On the one hand, people want policy to be informed and well analyzed. On the other, they want policymaking to be democratic. . . . In slightly different words, on the one hand they want policymaking to be more scientific; on the other, they want it to remain in the world of politics” (Lindblom 1980, 12). In political contexts, legitimacy rests on questions of majority and minority and how to control the treatment of the latter by the former. In scientific contexts, it has been centrally bound with “the fair play of ideas” and how skeptical questioning of accepted interpretations can be simultaneously encouraged yet kept from arbitrarily dismantling consensual understanding.

Effectiveness The role of criteria of effectiveness is simply to evaluate whether knowledge- or action-based efforts undertaken to help resolve problems actually do so. Efforts to develop such criteria must contend at the outset with what Carol Weiss (1975), commenting on the problems of evaluating policy, has called the dilemma of “little effect.” With depressing regularity, evaluations of policies produce verdicts that they have left the world “out there” pretty much the same. In part, this doubtless reflects the real difficulties of bringing about change in the world. In part, it also reflects a naive view of the processes by which both scientific ideas and public policies develop. Recent scholarship has shown that in both science and policy, critical findings that radically and unambiguously change the existing order are in fact rare. Effectiveness is better viewed not just in terms of the creation of solutions but rather in a broader context that includes the ability of a given endeavor to shape the agenda or advance the state of the debate (see Majone 1980; Keohane 1996).

Box 1.3 Criteria for evaluating efforts to link knowledge with action

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