

BOOK REVIEWS

Environmental impact re-assessment?

David Pearce

THE current fashion for environmental impact assessment (EIA) is partly explained by the continuing force of the environmental protection movement in Western countries. That movement is now under severe pressure from economic recession, and there are signs that impact assessments themselves will play a decreasing role in planning and development. Certainly, this is the message that emerges from the USA, where the emphasis is switching back to the costs of environmental protection. This reverse swing, no sign of which is even hinted at in the two volumes under review, is both unfortunate and misguided. But the environmental movement itself bears some of the responsibility. In their indecent rush to find an approach (some might say any approach) to the integration of environmental factors with the social and economic dimensions of development, environmentalists have produced a jumble of methodologies all too few of which have any rational grounding.

In essence, an EIA should identify all environmental and social impacts from a development. It may then leave them qualitatively recorded, or go further and measure them in physical terms or as "scores" reflecting a judgement of whether that impact is good, bad, moderate or serious. Neither *Project Appraisal and Policy Review*, which is a collection of essays on the state of play in EIA, nor *Environmental Impact Assessment*, the proceedings of the 1979 meeting of the UN Economic Commission for Europe (ECE), will aid anyone unfamiliar with the methodologies and techniques used for EIA. The ECE volume does, however, highlight the prevailing chaos whereby almost anything that quantifies, indicates or even mentions "impacts" is classified as an EIA. The conference lamented this state of affairs and one of its recommendations is for systematization. But there is a surprising lack of self-criticism in both books. Some of the scoring methods, for example, actually offend logic by placing cardinal numbers on ordinal rankings. Moreover, the call for systematization is negated by fairly regular references to the "flexibility" of EIA, as if this is a virtue rather than a euphemism for arbitrary procedures.

Both volumes would have greater claim to authority had they included contributions from economists. One example will suffice. In the USA the National Environmental Protection Act mandated EIA for public sector investments. A fairly

Project Appraisal and Policy Review. Edited by Timothy O'Riordan and W. R. Derrick Sewell. Pp. 304. ISBN 0-471-27853-X. (Wiley: 1981.) \$36, £13. *Environmental Impact Assessment*. Proceedings of a Seminar of the United Nations Economic Commission for Europe. Pp.368. ISBN 0-08-024445-9. (Pergamon: 1981.) \$55, £23.

traditional cost-benefit analysis was to be included. Without it, one may observe, it is not clear how anyone is to decide whether the investment is worth while at all. Yet O'Riordan and Sewell speak of the over-narrow concern in cost-benefit analysis with "economic efficiency" while their co-authors speak of the deficiencies of planning procedures that cannot debate national "need", which is what economic efficiency is all about.

A further flaw is that the value system underlying EIA is not investigated in either book. Cost-benefit analysis attempts to reflect an aggregate of individuals' preferences. In EIA, though it is hardly acknowledged, it is the *planners'* preferences that count. Possibly the unease which a democrat should feel in this respect explains the emphasis given by some of the authors in the O'Riordan and Sewell volume to the need to link EIA to "public involvement", although one cannot be quite sure who the "public" are. An EIA that finally emerges as a matrix of impacts does at least provide information for local and central government, as the authors correctly emphasize. But that same matrix — consisting of incommensurable impacts, subjective assessments by planners and consultants, objective physical measures

which may or may not be disputed by experts — cannot then answer questions of social worth unless reduced to commensurable terms with the demands the development makes on resources, i.e. its money cost. Moreover, EIA is of limited value in assisting choice between *alternatives* unless the impacts in the matrix for one assessment are systematically greater or less than the impacts in the assessment of the alternative.

The most provocative essay in the O'Riordan and Sewell volume, by Nick Abel and Michael Stocking, questions whether EIA has any relevance to less developed countries. Their argument is basically that EIA enshrines Western values, thus providing inappropriate evaluations of development projects, for example by implicitly equating low economic output per capita with "backwardness". Their strictures are familiar but worthy of careful examination. Anyone who has worked in low per capita income countries will doubt if Westernized assessment procedures are quite so irrelevant, since the general aim of income expansion is wholly warranted. But there is an unquestionable need to place EIA and other appraisal techniques in the political context of the country in question.

To anyone looking for an "update" on the state of play in EIA these are useful volumes, *Project Appraisal and Policy Review* especially so. Sadly, however, neither book has come to terms with the underlying questions which any project appraisal needs to ask. □

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Lives and work of the nervous doctors

W.F. Bynum

The Doctrine of the Nerves: Chapters in the History of Neurology. By John D. Spillane. Pp. 467. ISBN 0-19-261135-6. (Oxford University Press: 1981.) £25, \$50.

THE title of Dr Spillane's volume comes from Thomas Willis's (1621–1675) original definition of "neurologie" as the branch of medicine dealing with "the doctrine of the nerves". The word, of course, has since changed in meaning, and long before Willis the central nervous system and its associated nerves had been recognized as a

crucial custodian of our uniqueness: the receptacle of our sensations, originator of our movements, storehouse of our memories, the seat of our souls. Consequently, the study of the structure, functions and derangements of the nervous system has a rich history, as this elegantly written and beautifully illustrated book attests.

Unlike Caesar's Gaul, Dr Spillane's book is divided into four parts. He describes the classical foundations (Galen, Vesalius, Willis), the eighteenth-century