Nine actions which would directly influence the regulation of environmental change have been proposed; three of these are of a technical nature, two have minor political implications and four have considerable ramifications. The most significant actions will be those requiring political commitment. Without this, efforts to find technical and scientific answers to South African environmental issues will not succeed.

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References

Regulating environmental change
Invited review and discussion
by Prof B H Walker

I begin by complimenting Prof Fuggle on a very comprehensive, broad-based and thoughtful account which I am sure will set the tone for the rest of this symposium. I will not attempt to summarize all the important points which he has brought out, except to note that three major problem areas seem to have emerged. The first of these concerns logistics and data, people and money. The second is methodology for assessment and the third political and legal problems. I do not underestimate the first group of problems but I believe that the solution here will follow solutions to the other two, particularly to the third. There is no point in accomplishing a valid and detailed environmental impact assessment if developers are not required to consider it and act accordingly. On the other hand, it is not only useless but also counter-productive to set up the political, legal and administrative framework for impact assessment before the relevant methodology has been established.

In 1978, together with Dr Norton from Imperial College, I visited 13 research groups, environmental consultants and government departments in the UK and throughout Europe as part of a cooperative study to develop procedures for impact assessment. We looked at a number of impact assessments that had been done. Some of them were sound and had provided a good guide and could be considered useful but others were decidedly unsound.

Fuggle has rightly singled out the third category of problem as the major stumbling block in South Africa, but before we slide into the comfortable position of blaming forces beyond our control, let us make sure that our own house is in good order. How many of us here are really capable of carrying out a truly worthwhile impact assessment? We have biologists like myself fondly believing that we understand the problems of design and we have engineers and architects parading as ecologists. We need to ensure that we are ourselves in a position to meet the demanding challenge of producing acceptable impact assessments. Only then can we start looking at other problems.

So I would here like to focus on the methodological problem and present three recommendations which I think will add to Fuggle’s paper.

Firstly, the persons forming a group undertaking an impact assessment should be selected by or at least be approved of by a competent panel or council. We have to prevent the proliferation in South Africa of the so called sweetheart reports which developed overseas between private consultants and the large development organizations who kept them in business.

Secondly, we must also not have one or more techniques or methods emerging as being compulsory for impact assessments in South Africa. The procedure must be flexible. I was greatly surprised overseas by the number of inappropriate uses of various methods, eg the application of the matrix technique to problems which concerned a particular site when, in fact, the matrix technique is designed for comparisons of sites. Often the group concerned had used a specified method that was inappropriate and this was followed through with disastrous consequences. There is no single best method or technique. The choice of technique depends on the type of development involved and on the nature of the decision required.

The third point was also raised by Prof Cantlon: impact assessment must be an ongoing process, not a one-off operation, except in particular cases such as location studies where it is necessary to choose a site a priori. Even the EIA must be ongoing beyond that initial choice. It is naive to think that we will ever successfully project and therefore be able to prevent all bad impacts from some proposed project. Rather, we must learn to live with surprises or run the risk of the ‘Titanic effect’. The rigid, highly prescribed impact assessment engenders a false belief that one has catered for everything and that the system is quite safe. Then one runs into a highly improbable but nevertheless very big iceberg and down goes the Titanic and we with it.

The answer is to learn how to deal with the unexpected when it arises because the only thing we can be certain of is that the unexpected will occur. The only way to do this is to make impact assessment an ongoing process which assumes that nasty surprises will occur. Here the big, glossy, well prepared impact assessment is a problem because it has a formality about it which is false. One may be required as a first stage but must never be considered as more than that. A good impact assessment is in fact hard to distinguish from wise ecological management which must be adaptive to cater for the unknown. If it is really going to work, the assessment must continue with the project development and its findings must be continuously considered with the other project criteria. The best way to accomplish this is by means of small workshops of an interdisciplinary nature.