

# INTEGRATED ENVIRONMENTAL MANAGEMENT - AN INDUSTRY PERSPECTIVE

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## INTRODUCTION

Responsible environmental management poses a major challenge to managers in industry and government because it requires integration of a complex array of social, economic and environmental issues which interact with each other in a dynamic model. The problems are compounded by the fact that both legal and technological issues impact on these issues and in any specific set of circumstances, will reach a specific state of equilibrium. The three main elements in this model which influence the whole debate around environmental issues, are the economy, the social values of people and the physical environment itself. It is necessary to briefly look at each of these in order to understand how the question of environmental management should be seen in the context of its application in industry.

### The Physical Environment

There is a very big misconception in industry and with the public at large that the environmental debate relates only to issues or concerns around pristine areas where one finds wild animals or untouched and unpolluted terrestrial, aquatic and atmospheric surroundings. This image is not false, but it certainly is only a small part of the truth. The physical environment actually involves much more than "the great outdoors". "The environment" includes not only the natural environment, ie what might be called the macro environment, but also the micro environment, ie the factory floor, the workshop, the office, as well as the areas where communities live and go about their daily lives. Cities, towns and suburbs are also part of the environment. The places where people live and the quality of that environment has a direct effect on their performance and what they aspire to.

### Social Values

Rapid consumption and indiscriminate disposal of waste and products which were perceived to have come to the end of their useful life, were up until a few years ago considered to be part of the cost of wealth creation in the world<sup>1</sup>.

Today, governments, industry, suppliers, consumers, organised labour, ordinary citizens and a diversity of pressure groups are increasingly accepting and demanding that care of the environment be given a far higher priority. Research in South Africa<sup>2</sup> has shown that there are a number of factors impacting the attitude of business and industry to environmental issues. These include public

opinion, legislation, customers and the attitudes of employees. Companies which ignore these pressures are actually putting their organisations at risk. All of these pressures, which merely reflect the changing values of society, are likely to increase rather than decreasing in the medium to longterm.

### The Economy

There are many case histories which show that organisations become involved in environmental management for sound business reasons. There is however one caveat. The right to be seen as an environmental organisation must be earned, it cannot be bought.

Rachel Carson with her "Silent Spring" in the 60's, and Schumachers "Small is Beautiful", in the 70's are but two of a great number of people which have alerted the world to the irrevocable consequences of isolating economic activity from its effects on the well being of human life and the physical environment.

Environmental protection is a universal need and an area of growing expenditure in all the major national economies. Spending to protect the environment totalled \$170 billion in 1992 in the USA. It is expected to reach \$246 billion by the year 2000. South Africa is no exception. Many companies claim that their expenditure on environmental issues is substantial and that this is set to rise in the future. Estimates ranging from an average of 1% of turnover to a high of 3% have been quoted.

## INTEGRATED ENVIRONMENTAL MANAGEMENT

Integrated environmental management (IEM) as it is practised in South Africa has been formalised by the Department of Environment Affairs, as a procedure for ensuring that the environmental consequences of development proposals are understood and adequately considered in the planning process<sup>3</sup>. Some of the characteristics of and principles which underpin the IEM process are:

- \* informed decision making;
- \* accountability;
- \* the broadest possible meaning given to the term *environment*;
- \* it follows an interdisciplinary and multidisciplinary approach to projects;
- \* there are a number of sequential, interdependent phases;

- \* it requires communication and consultation with a wide range of interested and affected parties at local and regional level. There must also be democratic regard for individual rights and obligations.

The IEM procedure as defined by the Department has a number of important stages.

- Planning and assessment of the development proposal in terms of its environmental impacts
- Decision and conditions for approval
- Implementation

Ongoing or day-to-day environmental management in organisations cannot directly follow the same process as the IEM procedure mentioned above. The environmental management procedure in an organisation must be dynamic and flexible enough to take into account the demands and changes which take place in the operational and contractual situations of a company.

Organisations initiate and are in fact the source of development projects. It should be seen as part of the company's overall approach to environmental management that any such new development will be subject to the discipline and requirements of the IEM procedure. Integrated environmental management in organisations should therefore become a way of doing business rather than an add-on to the normal business processes which are practised.

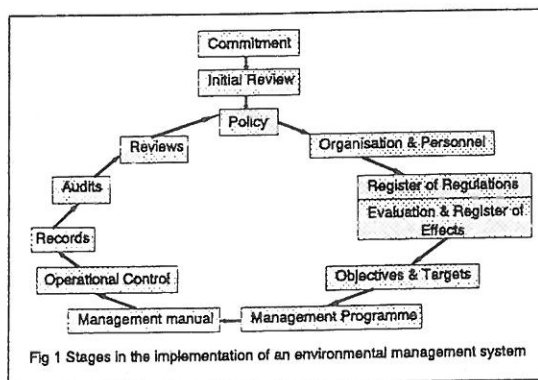
It is therefore believed that the IEM procedure referred to above should not be applied directly to the process of integrated environmental management in an organisation. The principles on which it is based however are sound. What is proposed is that a new or adapted process should be considered which takes into account the complexities of environmental management, but also marries and reconciles these with the demands of modern business management. All of this however must be underpinned by exactly the same basic principles as the IEM procedure.

## ENVIRONMENTAL MANAGEMENT SYSTEM

*Environmental management integrates the principles of product responsibility and safety, and occupational and community health and safety, with organisational systems and programmes dealing with the protection of the natural environment. (Cornelius C Smith Jnr Union Carbide).<sup>4</sup>*

In many parts of the world including South Africa, it has been recognised that there is a need for formalising the introduction of environmental management systems into organisations and industry. For this purpose standards such as the British Standard BS 7750 : 1992 and SABS 0251-1993 have been prepared and issued for use.

The general framework of these systems can be shown graphically as depicted in figure 1 on page 4. All the elements in the model of the process shown are contained in the definition of what environmental management means in an organisational sense and are generic to all such processes.



It is not important that the process be followed sequentially or in any given order. What is important is that organisations realise that it is a process and that it must be sustained. At some stage or time, all of the steps listed will have to be looked at, reassessed and customised for a particular company and set of circumstances.

Commitment to the process is a very important part of the implementing such a system. But commitment can mean many different things. If the implementation of the system requires only that it become an add-on or simply another management system in an organisation, the commitment of very few people needs to be sought to ensure adequate acceptance. However experience has shown that as with quality management systems, environmental management in organisations must become part of the organisational culture, if it is to be effective and to benefit the organisation.

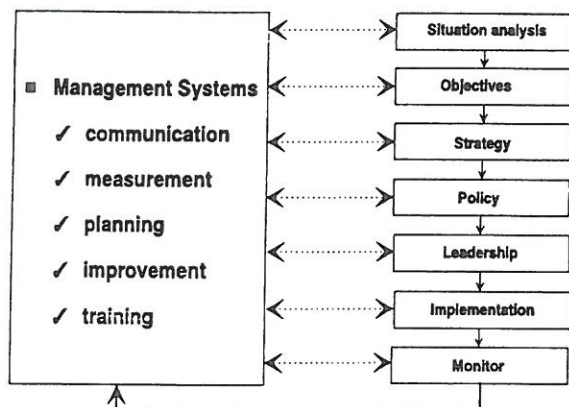
To achieve this a modified initial process is suggested as depicted in figure 2 on page 23. Of all of the elements in this process, one of the most indispensable is probably that of "leadership". It is the function of leadership to provide the *vision* which is necessary to give people the guiding principles against which they can measure their performance and the environmental action which is taken. Without this leadership cultural change and the embedding of environmental management principles in the organisation will not be possible. Leadership as a management function is very important because it deals primarily with the operation of bringing about change.

It should also be noted that policy should follow strategy. Once the strategy has been finalised, the policy can follow, containing the following main thrusts<sup>5</sup>.

- \* The key goals and expectations articulated by management

- \* The distribution of environmental responsibility throughout the organisation
- \* Specific order or programmes of responsibility for carrying out policy directives
- \* The methods of management control to be adopted
- \* The applicability of the policy

FIG 2 - THE ENVIRONMENTAL MANAGEMENT PROCESS IN ORGANISATIONS



### IMPLICATIONS FOR ORGANISATIONS

The conventional view is that it costs too much for an organisation to take up an environmental stance. The fact is that this has not stopped an ever increasing number of companies and organisations from implementing changes in design and manufacturing policies to reduce or eliminate harmful substances<sup>6</sup>. There are many examples of environmental programmes in companies which have yielded good profits.

As might be expected however there are certain costs associated with the implementation of such programmes. Three main areas can be identified where the cost of environmental action in organisations can be allocated. They are areas of failure, correction and prevention<sup>7</sup>. Failure and prevention costs can both be categorised as reactive, while prevention costs are incurred more in a proactive sense. With increasing expenditure on preventing environmental failure, the costs of failure and correction will decrease. There is therefore an optimal

cost for any given organisation operating in a given set of circumstances.

There are also other more intangible benefits which accrue to those who actively pursue environmental goals and standards in industry. Such action will have a positive influence on overall company efforts to achieve quality and excellence, it will lead to an enhanced corporate image, there will be greater protection of the environment with more effective employee and community safety as well as more efficient production processes.

Anyone wishing to practise responsible environmental management however, must realise that in the longterm it cannot be done as an add-on to existing systems. It must become a strategic and integral part of the business systems and culture of an organisation. This however is a slow and systematic step wise process which an organisation has to grow into.

### REFERENCES

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