

7.1 INTRODUCTION

SECTION SEVEN: IMPACT EVALUATION

Sub-problem 8: To evaluate the potential for ecological, social and economic impacts of outdoor advertising.

Hypothesis 8: The potential for ecological, social and economic impacts of outdoor advertising can be evaluated and used in the development of a National Code of Practice for Outdoor Advertising.

This section primarily deals with the potential for impact, whether, ecological, social or economic in nature, and comprises the following sub-sections:

- 7.1 INTRODUCTION
- 7.2 ENVIRONMENTAL VALUES
- 7.3 ECOLOGICAL IMPACTS
- 7.4 SOCIAL IMPACTS (AESTHETICS)
- 7.5 ECONOMIC IMPACTS
- 7.6 CONCLUSIONS

7.1 INTRODUCTION VALUES

The influence of development on the environment has been subjected to the criticism of the general public due to a heightened awareness of the need for the conservation of the environment, ecologically as well as aesthetically. In most cases, development is seen to be altogether destructive of the environment. South Africa is growing rapidly and needs to contend with the requirements of its growing population. The demand for development in the form of facilities and infrastructure, such as outdoor advertising, puts pressure to bear on the environment. The Integrated Environmental Management Procedure (IEM) states as its primary goal "to achieve the benefits of development with minimal harm to the environment" and thereby attempts to merge two seemingly opposing activities for the benefit of society as a whole. It is within the framework of the IEM procedure that the impact assessment for outdoor advertising was conducted. The environmental assessment (Stage 2 of the IEM procedure) includes the ecological as well as the aesthetic evaluation of the environment within which outdoor advertising should be developed.

The pilot study on outdoor advertising identified three groups of impacts associated with outdoor advertising. These are:

- Impacts of an ecological nature.
- Impacts of a social nature.
- Impacts of an economic nature.

7.2 ENVIRONMENTAL VALUES

The relationship between people and their environment is dependent on their cultural development (Cohen, 1971), which means that such a relationship will vary according to their cultural development. First world communities are, however, not generally aware of their dependence on ecosystems, and their actions often detrimentally affect the ecosystem of which they are a part.

The value that individuals assign to natural features or processes is often in conflict with the value assigned by others. Many values exist, but some are common to all individuals, and can therefore be identified as values of society. The basic classification of these values are values of society and values of individuals.

McHarg (1969), developed a method to identify the values that society as a whole, or individuals in that society, assign to natural resources in their environment, which are necessary to the health and prosperity of people living in such a region. Juneja (1974) grouped these values into four classes, i.e.

- resources inherently hazardous to man,
- resources hazardous to man after human interference,
- resources that are unique or rare,
- resources that are vulnerable and easily destroyed.

The last two categories are related to the aesthetic desirability of the natural features for various activities. For purposes of this study, the following classification of values will be used:

1. Value to Society (ecological)

- Life support features
- Unique and rare features
- Vulnerable or hazardous features

The value to society would therefore be an important issue in the ecological environmental assessment.

2. Value to individuals (aesthetic)

- Desirable natural features

The values to individuals are therefore relevant to the visual assessment of the environment.

7.3 ECOLOGICAL IMPACTS

Ecological impacts caused by the erection of advertising boards can generally be classed as negative impacts. Although these impacts are considered to be of insignificant scale, they nevertheless warrant investigation. Ecological impact will occur due to the placing, construction and maintenance of advertisement structures mainly in rural and natural environments. These impacts will basically result from the destruction of natural features by the placing of structures and the construction of access roads.

The normal method of assessing ecological impacts begins with a description of the biophysical environment including climate, geology, drainage, soil, vegetation, and fauna. This description is concluded with a summary of the salient features of the environment. In addition to this, the environmental values previously discussed have to be established. This combination of salient features and environmental values is an indication of the real benefit of the natural resource to society. An understanding of the value to society of the resource is crucial in terms of the ecological assessment.

All development projects are realised through the actions carried out by man. A detailed description of the proposed development in terms of people, activities, facilities and financial implications during all development phases (planning, construction and operational phases) of the project is therefore necessary to establish the influence they would have on the ecological environment.

In the case of the Outdoor Advertising study, the various types of outdoor advertisements will be classified and assessed to form the basis for the third stage of the IEM procedure, namely that of taking the decision on which class of outdoor advertising would be the most successful while at the same time creating the minimum damage to the natural environment.

7.4.1 Visual aspects of aesthetics

In most instances where aesthetics are considered, it is the visual appearance of the landscape that receives the most attention. The visual aspect is perceived through the eyes. It is therefore considered to be of prime importance and the other aesthetic perceptions are regarded as subsidiary in relation to visual perceptions.

7.4 SOCIAL IMPACTS (AESTHETICS)

The most significant impact outdoor advertising will have on our environment, is without doubt the impact on man's senses of perception i.e. aesthetic impacts.

7.4.1 THE CONCEPT OF AESTHETICS

7.4.1.1 Definition

Aesthetics can be described as the collective perception of the environment as experienced through all of man's senses. Two distinctive categories of the quality of the experience, namely the tangible and intangible qualities are identified. The tangible qualities are based on what man touches, sees, hears and smells. The intangible qualities are based on perceptions of qualities such as gradients, diversity, freedom from intrusion and endangerment.

7.4.1.2 Basic norms

Aesthetic analyses are complex, as they deal with human reaction to changes in the landscape. The analyses are conducted in terms of two basic norms.

- Objective norms

The visual analysis, based upon measurable criteria such as scale, composition and texture of the proposed development, as well as topographic closure, vegetational opacity and visual complexity of surrounding landscapes, is considered to be objective. The criteria can be measured and mapped, and the influence of the proposed development on the existing landscape can be determined.

- Subjective norms

A visual analysis, based upon the subjective view of the participant, which is influenced by factors such as social life style, background and economics, is considered to be subjective. This personalised analysis differs from one individual to another and is difficult to assess and quantify.

7.4.1.3 Visual aspects of aesthetics

In most instances where aesthetics are considered, it is the visual appreciation of the landscape that receives the most attention. The visual aspect as perceived through the eyes is therefore considered to be of prime importance, and the other sensual perceptions are regarded as secondary in relation to visual perceptions.

- CONROY The nature of visual perception

Visual quality of the landscape is the aesthetic response resulting from the interaction between the landscape and the human being. The individual goes through a process of taking inventory, cognition, evaluation and decision in order to respond to the environment that he sees.

Studies on visual impact assessment by Varnard (1964) have indicated four important categories of psychological needs. Firstly, man is a social animal, functioning in groups. Secondly, he requires a certain stability in his environment in that he demands variety as well as regularity. Thirdly, he has certain territorial requirements and lastly a certain need for beauty in his environment. This is illustrated by his actions in photographing, painting or the collecting of plants and rocks and then surrounding himself with these elements. It is clear that when all four of these needs are combined, that too dramatic a visual change in his natural environment can be seen to be disturbing and therefore be rated as unacceptable (Conroy, 1981).

Two components of the environment are studied to establish the field of the visual analysis, namely the landscape component and the land use component.

- Landscape component

The landscape component consists of a number of visual resource elements such as landform, vegetation, water, animal life and structures. The landscape is described in terms of form, line, colour, texture, scale, proportions, balance, symmetry, dominance, diversity, continuity, contrast and depth of field, to establish the visual character.

- Land use component

The land use components are described in terms of non-renewable resources, recreational resources, spiritual/cultural resources, educational resources and economical resources.

7.5 ECONOMIC IMPACTS

7.5.1 COMMERCIAL

The commercial benefits of outdoor advertising are difficult to quantify. The investigation into outdoor advertising supports this positive benefit but it appears that these financial advantages circulate between the various participants in the industry. It appears that little money is allocated to either the community in general or the road authorities. Some overseas research indicates that the cost of outdoor advertising equals the financial benefits. It is clear that a great deal of additional research is necessary to quantify the benefits society derives from outdoor advertising.

7.5.2 ROAD SAFETY

Road accidents can be viewed as a large economic cost to the country. Due to the fact that there is uncertainty about the effect of outdoor advertising on road safety, it is not clear what the economic cost in this category would be. Further research would clarify the method of negative cost involved with this impact of outdoor advertising.

7.5.3 TOURISM

The economic benefits of tourism have been discussed and illustrated in many different research projects. It is also evident that the aesthetic impact will reduce the scenic quality in the natural and rural zones. It is difficult to quantify the actual financial cost of this aesthetic impact. Research in the USA on the economic benefits of scenic byways provides detailed indications of the financial benefits of specific aspects of tourism linked to lodging, food and beverage, transportation, sporting activities, recreation and amusement. According to the Final Case Study of the National Scenic Byways Study (1990), specific economic benefits have resulted from the introduction of scenic byways.

As the scenic byways programme includes strict sign control, this study implies that any reduction in scenic qualities would have immediate negative economic impacts.

7.6 CONCLUSIONS

The following conclusions are drawn and used in the development of a model for a National Code of Practice for Outdoor Advertising.

- **Ecological impacts:** The potential for significant ecological impacts resulting from the erection and operation of advertising boards is negligible. This statement is supported by the literature study and workshops, and is based on the assumption that the structures occupy a relatively small footprint area. Consequently, on-the-ground damage is limited. However, on-site conditions can vary considerably and it is proposed that a precautionary approach be adopted in a NCOP. This may ideally be implemented by adopting a system of zoning and control whereby sensitive areas (natural and rural areas) are protected by restricting the type of advertising structure and the performance requirements of such. Furthermore, it is proposed that an EIA become compulsory for larger billboards.
- **Social impact:** The research conducted by Dr. Fiedeldej and presented in Part One Section 5, as well as the preceding review supports the assertion that outdoor advertising boards and structures have a high potential to degrade the aesthetic value of the environment. It is recommended that a number of procedures be adopted in the NCOP that will effectively mitigate this potential impact:
 - Areas of higher sensitivity to visual disturbance be identified and zoned as protected areas. In these areas, high impact type signs such as billboards, should be restricted;
 - Parameters and design guidelines should be developed to guide signage companies in the design and construction of aesthetically pleasing structures;
 - An environmental impact assessment should become a prerequisite for certain high impact type of signs and for signage in certain areas of high sensitivity. The latter may include all natural and rural areas, as well as selected precincts within urban areas, such as parks, river courses and ridges.
- The possible **economic benefits** of outdoor advertising cannot be easily defined as most of the funds circulate within the industry and little benefit is felt by communities or road authorities. If any direct financial benefits to the communities are to be realised, specific measures will need to be developed to facilitate this. The negative impact on the tourist industry is suggested by many sections of the research but little accurate information on real economic impacts is available. Detailed economic benefits of the establishment of scenic byways in the USA is illustrated in a variety of detailed studies. It can be argued that a reduction in aesthetic quality of the scenic environment will result in a negative economic impact. This will especially apply to a country such as South Africa, who relies heavily on its natural splendour to lure tourists.

- The concept of zoning South Africa into areas of control is put forward as the most suitable method of reducing the aesthetic impact of outdoor advertising and therefore reducing the economic impact resulting from a reduction in tourism.

PART TWO: A NATIONAL CODE OF PRACTICE FOR OUTDOOR ADVERTISING