

FORCES DRIVING ENVIRONMENTAL CHANGE IN MOGALE CITY

Driving Forces: Environmental Change is caused by human activities (driving forces), which combine with natural processes putting pressure on ecosystems. It is important to understand the driving forces and the pressures they cause, in order to develop and implement policies, strategies and plans, which will encourage sustainable practices and discourage harmful ones. Experience has shown that the costs of preventing environmental damage are very much lower than the costs associated with extinction, habitat loss, loss of ecosystem functioning or impaired human health.

Policies and economic activities are very powerful influences of human behavior, with both positive and negative outcomes. For example, a government decision to subsidise the cost of fertilizer to farmers encourages farmers to use more fertilizer, which can encourage crop yield in the short term, but may cause damage to the soil, reducing sustainability in the long term. In order to prevent or reverse environmental damage arising from pressures like this and to promote activities which are environmentally sustainable, it is critical to understand natural resources and ecosystem functions and what causes them to become depleted and degraded. This understanding can be used to influence decision makers to use policies, activities and programmes that ensure sustainable development.

State of the Environment in South Africa - an overview, 1999

The population growth of MCLM is approximately 2.1% per annum (Census 1996), as a result of natural growth, immigration and urbanisation. The MCLM unemployment rate is estimated to be 27%. The incidence of poverty and unemployment is high. Exponential human population growth is one of the main causes of environmental degradation. A growing population and increased standards of living, create increased demands for goods and services (including housing, water and electricity), increased production of waste, increased use of the environment for economic and recreational activities and increased transportation needs to enable people to move around the city.

MCLM has a diversified economy mainly consisting of manufacturing and tourism. The industrial and commercial sectors of MCLM employ over 33 000 individuals with males dominating this workforce. Economic activity has had a significant negative impact on MCLM's natural environment, resulting in the alteration of the natural landscape, air, soil and water quality, as well as a loss of biodiversity.

Through the planning processes and the Integrated Development Plan, MCLM intends to provide for the future needs of the expanding population. The planning includes assessments of the present and future capacities of services and natural resources to provide for growing needs, the timely identification and provision of land for various land uses and strategies to increase services, lessen environmental impacts, reduce the amounts of waste and limit the use of water and energy.

As society enters an era of resource scarcity, a stronger focus is needed on strategies and actions that will promote the use of fewer resources, the re-use and recycling of waste, and the creation of more compact and efficient cities. Compared with single houses on large stands, neighbourhoods with high-rise flats and townhouses require much less land, fewer roads and pipes, and reduced travel times and fuel consumption. Urban densification and the integration of fragmented urban areas have been identified as priorities in the IDP of

the MCLM. Job creation will be accelerated by large projects such as development corridors and initiatives to support small business entrepreneurs.

More efficient technologies are needed, such as new types of toilets using less water for flushing. Minimisation strategies are also required, for example, increasing the price of resources such as water will also reduce their use. The above-mentioned strategies can partially compensate for the increased needs of the growing population.

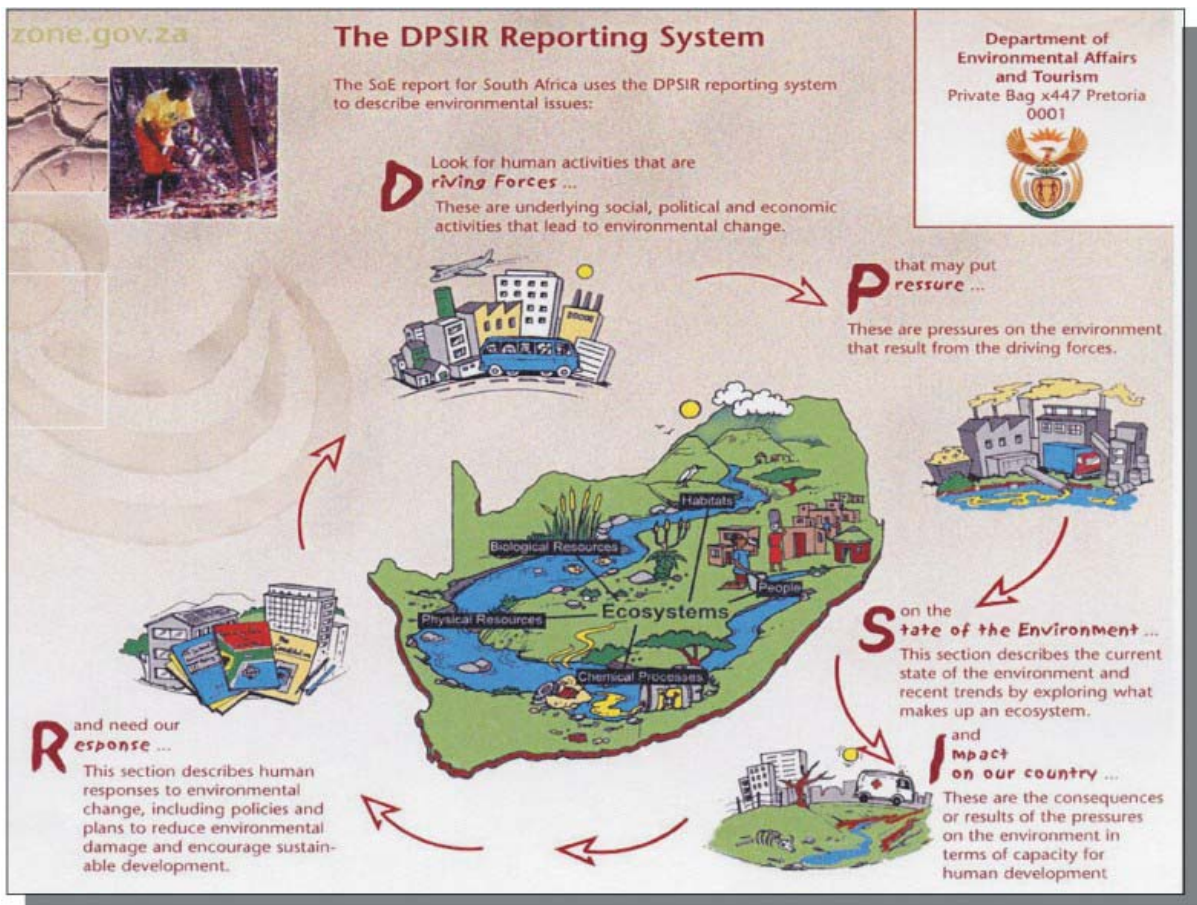


Figure 10: The DPSIR Reporting System (State of the Environment for Schools, January 2001)