Section 2

Key Environmental Issues

Section 2 – Introduction

An inception-cum-training programme was organised from 21-23 December 2005 to introduce Integrated Environmental Assessment training tools specifically developed by the Organisation for Economic Cooperation and Development (OECD) and other organisations. This framework has been adopted by the United Nations Environment Programme (UNEP) for the preparation of an integrated environmental assessment report of the Kathmandu Valley's Environment Outlook.

The training workshop identified five key environmental issues in the Kathmandu Valley. These are the following.
- Air quality and traffic management
- Settlement patterns
- Water resources
- Waste management
- Natural disaster preparedness (focused on earthquakes and land subsidence)

A Driver-Pressure-State-Impact-Response (DPSIR) Framework was used to analyse the five issues in the Kathmandu Valley. The Framework is described below and shown diagrammatic form overleaf.

DRIVERS
They are sometimes referred to as indirect or underlying drivers or driving forces and refer to fundamental processes in society which drive activities having a direct impact on the environment.

PRESSURES
They are sometimes referred to as direct drivers as in the millenium ecosystem assessment (MA) framework. They include, in this case, the social and economic sectors of society (also sometimes considered as Drivers). Human interventions may be directed towards causing a desired environmental change and may be subject to feedback in terms of environmental change, or could be an intentional or unintentional by-product of other human activities (i.e., pollution).
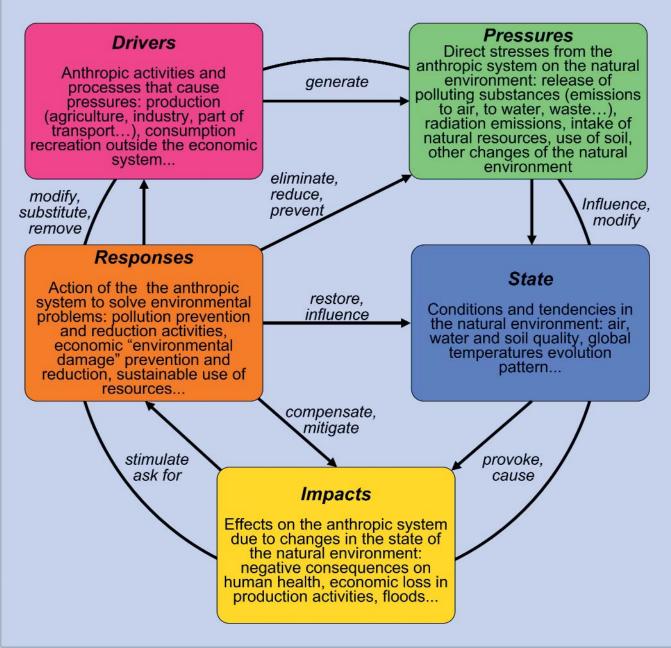
STATE
Environmental state also includes trends, often referred to as environmental changes, which could be both natural and human induced. One form of change, such as climate change, (referred to as a direct driver in the MA framework) may lead to other forms of change such as biodiversity loss (a secondary effect of climate gas emissions). Multiple pressures could leave the environment more vulnerable, leading to cumulative change and, in some cases, sudden and disruptive change.

IMPACTS
Environmental change may positively or negatively influence human well-being (as reflected in international goals and targets) through changes in ecological services and environmental stress. Impacts may be environmental, social, and economic, contributing to the vulnerability of people. Vulnerability to change varies between groups of people depending on their geographic, economic, and social location, exposure to change and capacity to mitigate or adapt to change. Human well-being, vulnerability, and coping capacity are dependent on access to social and economic goods and services and exposure to social and economic stress.

RESPONSES
They (interventions in the MA Framework) consist of elements among the drivers, pressures, and impacts that may be used for managing society in order to alter the human-environment interactions. Drivers, pressures, and impacts that can be altered by a decision-maker on a given scale are referred to as endogenous factors, while those that cannot are referred to as exogenous factors. Responses are at different levels, for example, environmental laws and institutions at national level and multilateral environmental agreements and institutions at regional and international levels. Responses address issues of vulnerability of both people and the environment and provide opportunities for enhancing human well-being.

Driver-Pressure-State-Impact-Response (DPSIR) Framework