ECONOMIC VALUATION FOR ENVIRONMENTAL MANAGEMENT FOR HEALTH

1. Introduction - There is increasing recognition that environment and health impacts often require valuation in economic terms in order to receive adequate consideration in policy. An integrated economic analysis of such impacts can capture the hidden costs and benefits of policy options, as well as the synergies and institutional economies of scale that may be achieved through complementary policies that support sustainable development.

Protecting human health is a primary goal of environmental policy and economic evaluation of health can help policy-makers judge the relative worth of alternative actions. Economists use two distinct approaches in normatively evaluating health. Whereas environmental economists use benefit-cost analysis supported by monetary valuation in terms of willingness-to-pay, health economists evaluate interventions based on cost-effectiveness or cost-utility analysis, using quality-adjusted life-years or similar indexes.

To be more elaborative, the economic benefits to be derived from sustainable forestry practices may be considerable when impacts are analysed as part of a comprehensive policy package; this would relate not only to issues of employment and poverty alleviation, but also to the long-term environmental and economic impacts of forest maintenance or depletion, as well as to the health costs of diseases associated with deforestation. These are to quantify the environmental impacts of a particular policy and population health impacts (burden of disease). Estimating the burden of disease from environmental risks such as air pollution, poor water and sanitation, etc. is done through the scientific assessment and available with UNEP and WHO.

2. Economic Effects of Environmental Public Policy for health –

A. Costs of Policies

i. Those involving little or no direct monetary cost

ii. Those involving costs that must be paid by some segment of society. The cost should be borne by those benefiting from the activity that produces the pollution.

B. Impact on the Economy

i. An economy stimulant

ii. Creates jobs

iii. Transfers wealth from polluters to pollution controllers and to less polluting companies.

3. Methods to Evaluate Public Policy Options for Health -

A. Cost-Benefit Analysis

i. The merits of the goal are not necessarily known or accepted. In a cost benefit analysis the attempt is to determine if the action is worth the cost.

ii. Brings external costs into the equation.

iii. Difficult and controversial to do because the process is filled with value judgments

iv. The Costs of Environmental Regulations – Pollution prevention rather than pollution control to reduce costs and increase compliance

v. The Benefits of Environmental Regulations – Attempt to quantify benefits

* The value of human life

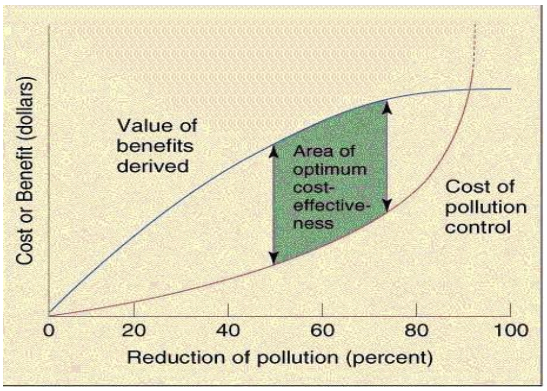
* Non-human environmental components

B. Cost Effectiveness

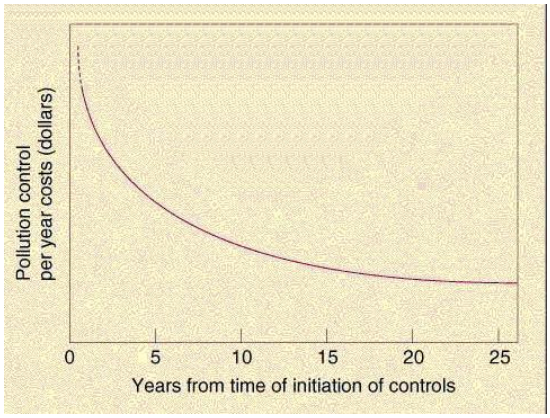
i. In a cost effectiveness analysis the attempt is to find the least costly way to achieve the goal.

4. Some of the criteria of pollution control discussed below:

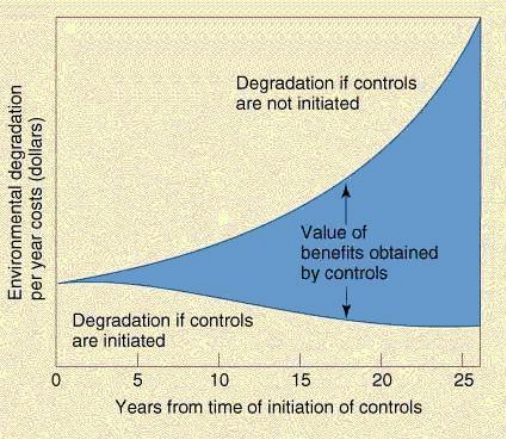
* The cost of pollution control increases exponentially with the degree of control to be achieved. However, benefits derived from pollution control tend to level off and become negligible as pollutants are reduced to near or below threshold levels. Following figure explains this:



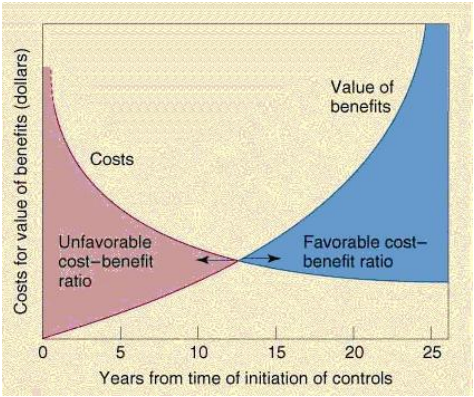
* Pollution-control strategies generally demand high initial costs. The costs then generally decline as those strategies are absorbed into the overall economy. Following figure explains this:



* Benefits may be negligible in the short term, but they increase as environmental and human health recover from the impacts of pollution or are spared increasing degradation. Following figure explains this:



* When the two curves are compared, we see that what may appear as cost-ineffective expenditures in the short term (5-10 years) may, in fact, be very cost effective in the long term. Following figure explains this:



5. Conclusion- An understanding of the linkages between society, environment and the economy will prove to be instrumental in arriving at meaningful interpretations of the pressing environmental issues faced around the world today.

Through locally accountable organizations, people who are dependent on local resources and their sustainable management can make their concerns heard and often taken into account.

Optimizing use of limited resources is one of the biggest challenges facing any decision-maker. Economic assessment is therefore a vital tool. It can enumerate the potential costs and value the anticipated benefits of a proposed programme, policy or regulatory initiative, and reflect trade-offs inherent in alternatives.

Source : http://saferenvironment.wordpress.com/2009/04/22/economic-valuation-of-health-for-environmental-policy/