

## FAQ

1. How does Benefit Cost analysis help in environmental policy making?

Ans: Benefit Cost analysis uses economic point of view for the choice of policy measures. It is decided on the basis of maximum benefit and minimum cost. The analysis is done by comparing the benefits and costs in money terms. Suitable decisions are taken after comparison of cost and benefit. Before taking any decision, it has to be ensured that benefit of taking the decision exceeds cost incurred in implementing the decision. While doing this analysis, the tools of benefit cost analysis are to be used.

2. What is significance of time adjustment to benefits and costs?

Ans: Any policy decision has long term impact. All the costs are not incurred on immediate basis. There is a deferred implication of cost. Similarly, benefits also do not accrue on immediate basis. So, for making any comparison, we have to calculate present value of benefits and costs. While calculating the present value, we need to look at the opportunity cost and make the relevant corrections to arrive at the present value. This is just like calculating the Principal amount of any bank deposit when we know maturity value, interest rate and time period. After calculating the present value of benefit or cost, we need to make inflation correction. This correction accounts for the prevailing level of inflation. Some measures like Consumer price Index may be used for calculation of this inflation correction. Using the correction, real value of benefit or cost is calculated and then we can make a reasonable comparison after making these time adjustments.

3. What is Benefit Cost analysis and how it is done?

Ans: The Benefit Cost analysis is a comparison of current value of benefits and costs related to any policy decision. The very first step of making the comparison is to work out the present value of benefits and costs after applying the required corrections for calculating present value and applying

the inflation correction. After this present value is known, the comparison is done between benefit and cost of different policy options. First step is to select feasible policy option. The rule is that current value of benefits should be more than current value of costs. After this selection of feasible options, final selection of option is done based on either maximization of present net value of benefits (PVNB) or minimization of present value of costs (PVC).

4. What are advantages of Benefit Cost analysis?

Ans: Benefit Cost analysis provides us with a very objective tool for policy decision making. Here the decisions are not taken on perceptions. Actual calculation of numbers related to benefits and costs is done for the available policy options. Since the relevant corrections are also done for time factor and inflation factor, the figures are realistic and comparable. Only after actual comparison of numbers, best policy option can be decided. The biggest advantage of Benefit Cost analysis is its objectivity.

5. What are key reservations about Benefit Cost analysis?

Ans: The two reservations about benefit cost analysis are related to measurement problems and equity issues. The measurement problem is related to assigning money value to any benefit or cost. Sometimes, unreal values can be assigned leading to incorrect comparisons and hence wrong decisions. Another measurement issue is about selection of social discount rate which is always subject to much debate. This rate decides the computation of present value for comparison. The second reservation is about the analysis not considering unequal distribution of benefits or costs to individuals or industries. It is not certain that the inequality will be same for benefits and costs.

6. How do you make summary of time adjusted benefits and costs?

Ans: Present value of all the benefits and all the costs are determined. The sum total of time adjusted benefits is PVB and that of time adjusted costs is PVC.

7. What are different criteria used for determining feasibility of the options?

Ans: Following are the criteria for feasibility of the options:-

(a)  $(PVB/PVC) > 1$

(b)  $(PVB - PVC) > 0$

8. What is relevance of two different criteria for determination of feasibility?

Ans: The criterion ' $(PVB/PVC) > 1$ ' conveys the benefits of policy option per unit of cost spent, while the criterion ' $(PVB-PVC) > 0$ ' conveys the monetary value of excess benefits over and above the cost.

9. What are the different decision rules in benefit cost analysis and what is their relevance?

Ans: First rule is maximizing the PVNB and this helps achieve allocative efficiency. Second rule is minimize the PVC and this help achieve cost effectiveness.

10. What is the key purpose of Benefit cost analysis?

Ans: The key purpose of benefit cost analysis is to provide guidance for decision making.