

Solutions

2.1 A In a simplified model, marginal social cost equals marginal private cost plus marginal external cost. A pollution charge can alter incentives, but selecting a charge requires evidence and a stated objective. Monetary totals do not by themselves settle distribution, irreversibility, uncertainty or whether a service can be substituted.

2.2 $\text{social cost} = (\text{private} + \text{external}) \times \text{quantity} = (6 + 2) \times 50 = 400 \text{ units}$.

2.3 False. A money value is an assumption-dependent estimate, not a measurement of intrinsic ecological value. A policy that lowers total cost can still place a disproportionate burden on a vulnerable group.

2.4 externality. externality means A transaction effect on a third party not fully reflected in its price.

3.1 Total 600–900 units. External valuation, distribution and omitted effects are uncertain; a midpoint does not settle equity or policy.