

SOCIAL COSTS GLOSSARY

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(Italicised terms within definitions are glossed separately.)

Accident insurance	Voluntary or mandated insurance against the risks of accidents (property and health). The premiums partly internalise external costs.
Average costs	Total costs in a period, divided by the quantity (output) produced/consumed in that period. Long term average costs include a share of fixed costs (e.g. costs associated with expansion of infrastructure).
Club good	A good that can be consumed only by a limited number of users (club members), as opposed to a <i>public good</i> (consumable by everyone) or one from whose consumption everyone can easily be excluded. Road use is a club good.
Consumer surplus	Measures the net benefits from consuming a certain quantity of a good/service; also measures how much a consumer would be willing to pay for the consumption of a good, over and above the market price.
Contingent valuation method	<i>Valuation</i> technique which asks people directly how much they are willing to pay/to accept for improving/deteriorating environmental quality. Based on the <i>stated preference</i> approach, it is the only method that allows the estimation of <i>existence value</i> .
Cost-effectiveness	Minimising the costs of achieving a given (e.g. environmental) objective/target; a “ <i>second-best</i> ” efficiency criterion, often used when a full cost-benefit analysis is not feasible.
Defensive expenditures	<i>Valuation</i> technique wherein a value for environmental quality is inferred from people’s (voluntary) expenditures aimed at improving their situation.
Earmarking	Tying revenues received to a specific use (e.g. financing road network expansion).

Efficiency	Generally used here to mean efficient allocation of scarce resources, in the broad sense. At the margin, resources should be used by the individual who is willing to pay the most for them (i.e. marginal social cost equals marginal social benefit).
Elasticity	Proportional change in demand in response to a price increase or decrease (price elasticity); or reaction in total demand after an increase/decrease in income (income elasticity).
Environmental effectiveness	Benefit/Improvement to the environment that a given policy response generates, considered separately from the economic costs that may result from implementing the policy.
Equity	Criterion that may entail modifying a political decision so as to achieve a particular distribution of incomes in the economy through, for instance, subsidies to public transport for low-income groups or to achieve regional development objectives.
Existence value	Economic value which people attribute to something purely for its existence (no consumption is foreseen); can only be estimated via the <i>contingent valuation</i> method.
Externality (external cost)	Economic cost not normally taken into account in markets or in decisions by market players.
(Full) fuel cycle	Complete fuel cycle; the discovery, depletion (mining), processing, transport and use of an energy resource.
Hedonic pricing	<i>Valuation</i> technique which infers a value for environmental quality from rent or property price differentials.
Human cost	Value attributed to human life in excess of the average economic output produced by an individual.
Internalisation	Incorporation of an <i>externality</i> into the market decision making process through pricing or regulatory intervention. In the narrow sense, internalisation is achieved by charging polluters (for example) with the damage costs of the pollution generated by them, in accordance with the <i>polluter pays principle</i> .
Marginal costs	Costs related to a small increment in demand (e.g. an extra vehicle-kilometre driven). Long term marginal costs include the capacity expansion needed to service increased traffic demands.
“No regrets” level	Level of internalisation at which individuals or companies achieve a net personal/private benefit (e.g. savings on fuel bills) which exceeds the loss in welfare due to a given policy. The existence of “no regrets” options will tend to increase the political acceptability of internalisation policies.

Opportunity costs	Costs which arise when a particular project restricts alternative uses of a scarce resource (e.g. land use for infrastructure precludes alternative uses such as recreation). The size of an opportunity cost is the value of a resource in its most productive alternative use.
Pareto efficiency (=P. optimality) Pareto,	State of equilibrium in which no one's welfare can be further improved without decreasing someone else's (after V.F.D. 1848-1923).
Pecuniary externality through	External effect that is actively and voluntarily processed through markets and thus need not be addressed by government action.
Polluter pays principle	Political/economic principle stating that polluters should pay the full environmental costs of an activity. Some experts extend the principle to state that users that should pay the full social costs of an activity, but this is not universally accepted.
Prevention cost approach	Technique for estimating <i>externalities</i> whereby the costs of preventing damage are used as a proxy for the cost of the damage itself for society.
Productivity	Output divided by the inputs needed to produce that output, in value terms.
Public good	Good/service for which property rights are not defined. Without government intervention, environmental goods (e.g. clean air) are usually treated as public.
Progressivity/Regressivity	Impact of government policy on income distribution; progressive/regressive effects occur when poor households spend a smaller/larger proportion of their income for a particular measure (e.g. a tax) than do richer households.
Relative price	Price of a good/service relative to one or several other goods (e.g. transport prices relative to a "basket" of all other goods/services produced in the economy).
Revealed preference	<i>Valuation</i> technique wherein consumers' choices are revealed in the marketplace (e.g. by the purchase of a good).
Risk approach	Technique for estimating <i>externalities</i> whereby external costs are inferred from premiums for risk factors (e.g. the cost of insurance, or of risk diversification).
Second-best (option, policy)	One that does not correspond to the theoretically optimum solution but is the best of the available non-optimal policies/measures.
Severance effect	Separation of adjacent areas by road or rail infrastructure, causing negative impact on human beings (e.g. restricted access to shopping, recreational, etc. facilities) or on flora and fauna (e.g. constriction of habitat). Also called barrier or separation effect.

Shadow price	The marginal opportunity cost of the use of a resource (i.e. the loss of benefits if this resource cannot be used for the next best purpose).
Social costs	The sum total of internal and <i>external</i> costs.
Social cost-benefit analysis	Systematic estimation of all costs and benefits of a project that are relevant to society. Includes both <i>technological externalities</i> and <i>pecuniary externalities</i> , as long as the latter are not merely redistribution of income.
Stated preference	<i>Valuation</i> technique wherein monetary estimates are derived from hypothetical statements by individuals about their preferences, typically relying on a questionnaire approach; an example is the <i>contingent valuation method</i> .
Tax	A government-imposed levy whose size may or may not be related to the pre-tax price of a good/service.
Technological externality	External effect that is not actively or voluntarily processed through markets, resulting in economic inefficiency; occurs when some firm or individual uses an asset without paying for it (or, more technically, when one productive activity changes the amount of output or welfare which can be produced by some other activity using a given amount of resources). Negative technological externalities reduce the amount of output or welfare an economy can produce with a given allocation of inputs.
Toll	Special charge levied at a particular point where vehicles pass (tunnel, motorway, etc.).
Traffic volume	Measure of transport activity, expressed in, for example, <i>vehicle-kilometres</i> or <i>tonne-kilometres</i> .
Transport mode (etc.).	Category of means of transport (road, rail, aviation, shipping, etc.).
Unit costs	Costs per unit of a good/service (e.g. <i>traffic volume</i>).
Use-charge	Any charge related directly to actual use of a transport mode; is a variable charge (as opposed to, say, vehicle and sales taxes, which are fixed charges). The term is preferred here because “user charge”, which is frequently employed in the literature in this sense, can be misinterpreted out of context.
Utility (private (social	Benefit received by an individual through consumption of a good/service or through the existence of that good/service utility); or the aggregate of private utilities in an economy utility).
Valuation	Process of estimating the economic value of a certain quantity of a good/service; generally expressed in monetary terms.
Vehicle-kilometre	One kilometre travelled by a single vehicle.