Transport Pricing Guidance

*Guidance for assessing the greenhouse gas impacts of transport pricing policies*

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Glossary, abbreviations and acronyms, references and contributors

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**GLOSSARY**

**Assessment period**

The time period over which GHG impacts resulting from a policy are assessed

**Assessment report**

A report, completed by the user, that documents the assessment process and the GHG, sustainable development and/or transformational impacts of the policy

**Baseline scenario**

A reference case that represents the events or conditions most likely to occur in the absence of a policy (or package of policies) being assessed

**Causal chain**

A conceptual diagram tracing the process by which the policy leads to impacts through a series of interlinked logical and sequential stages of cause-and-effect relationships

**Cross-elasticity of demand**

A policy of the responsiveness of the quantity demanded for a good to a change in the price of another good, ceteris paribus. The cross-price elasticity is used to estimate the indirect impact, or the gross effect of a fuel price increase on transport demand in alternative modes. It is the percentage change of a good’s demand divided by the percentage change of a substitute good’s price.

**Emission factor**

A factor that converts activity data into GHG emissions data

**Ex-ante assessment**

The process of estimating expected future GHG impacts of a policy (i.e., a forward-looking assessment)

**Ex-post assessment**

The process of estimating historical GHG impacts of a policy (i.e., a backward-lookup assessment)

**Expert judgment**

A carefully considered, well-documented qualitative or quantitative judgment made in the absence of unequivocal
observational evidence by a person or persons who have a demonstrable expertise in the given field (IPCC 2006)

**GHG assessment boundary**
The scope of the assessment in terms of the range of GHG impacts that is included in the assessment

**GHG impacts**
Changes in GHG emissions by sources that result from a policy

**Heavy-duty vehicles (HDV)**
A vehicle designed for heavy work (bus or truck) which is generally powered by a diesel engine

**Impact assessment**
The estimation of changes in GHG emissions or removals resulting from a policy, either ex-ante or ex-post

**Independent policies**
Policies that do not interact with each other, such that the combined effect of implementing the policies together is equal to the sum of the individual effects of implementing them separately

**Inputs**
Resources that go into implementing the policy, such as financing

**Interacting policies**
Policies that produce total effects, when implemented together, that differ from the sum of the individual effects had they been implemented separately

**Intermediate effects**
Changes in behaviour, technology, processes, or practices that result from the policy, which lead to GHG impacts

**Jurisdiction**
The geographic area within which an entity’s (such as a government's) authority is exercised

**Key performance indicator (indicator)**
A metric that indicates the performance of a policy

**Light-duty vehicles (LDV)**
Any motor vehicle with a gross vehicle weight rating of 10,000 pounds or 4,500 kg or less, which generally use gasoline

**Monitoring period**
The time over which the policy is monitored, which may include pre-policy monitoring and post-policy monitoring in addition to the policy implementation period

**Negative impacts**
Impacts that are perceived as unfavourable from the perspective of decision makers and stakeholders

**Overlapping policies**
Policies that interact with each other and that, when implemented together, have a combined effect less than the sum of their individual effects when implemented separately. This includes both policies that have the same or complementary goals (such as national and subnational energy efficiency standards for appliances), as well as counteracting or countervailing policies that have different or opposing goals (such as a fuel tax and a fuel subsidy).

**Own-price elasticity**
The own-price elasticity is used to estimate the direct impact, or the net effect of a fuel price increase on fuel demand. It is the
percentage change of a good’s demand divided by the percentage change of that good’s price.

Parameter
A variable such as activity data or emission factors that are needed to estimate GHG impacts

Policy implementation period
The time period during which the policy is in effect

Policy or action
An intervention taken or mandated by a government, institution, or other entity, which may include laws, regulations, and standards; taxes, charges, subsidies, and incentives; information instruments; voluntary agreements; implementation of new technologies, processes, or practices; and public or private sector financing and investment, among others

Policy scenario
A scenario that represents the events or conditions most likely to occur in the presence of the policy (or package of policies) being assessed. The policy scenario is the same as the baseline scenario except that it includes the (or package of policies) being assessed

Positive impacts
Impacts that are perceived as favourable from the perspectives of decision makers and stakeholders

Price elasticity of demand
A policy of the responsiveness of demand or supply of a good or service to changes in price. The price elasticity of demand policies the ratio of the proportionate change in quantity demanded to the proportionate change of the price.

Pricing policy
Pricing policies in the transport sector incorporate external costs of transport into price signals that are intended to influence demand and reduce GHG emissions, including increased fuel taxes and levies, fuel subsidy reductions, road pricing, vehicle purchase incentives, carbon taxes, vehicle taxes, parking pricing, distance-based pricing, public transit fare reforms, company car policy reforms and smart growth reforms, among others

Rebound effect
Increased consumption that results from actions that increase efficiency and reduce consumer costs

Stakeholders
People, organisations, communities or individuals who are affected by and/or who have influence or power over the policy

Sustainable development impacts
Changes in environmental, social or economic conditions that result from a policy, such as changes in economic activity, employment, public health, air quality and energy security

Uncertainty
1. Quantitative definition: Measurement that characterises the dispersion of values that could reasonably be attributed to a parameter. 2. Qualitative definition: A general term that refers to the lack of certainty in data and methodological choices, such as
the application of non-representative factors or methods, incomplete data, or lack of transparency.
ABBREVIATIONS AND ACRONYMS

CDM  Clean Development Mechanism
CO₂  carbon dioxide
CO₂e carbon dioxide equivalent
tCO₂e tonnes of carbon dioxide equivalent
CNG  compressed natural gas
GHG  greenhouse gas
GIZ  Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
HDV  heavy-duty vehicle
ICAT Initiative for Climate Action Transparency
LPG  liquified petroleum gas
NCV  net calorific value
NDC  Nationally Determined Contribution
LDV  light-duty vehicle
MRV  Monitoring, Reporting and Verification
NAMA Nationally Appropriate Mitigation Action
PKM  passenger kilometre
TKM  tonne kilometre
UNFCCC United Nations Framework Convention on Climate Change
VKT  vehicle kilometre
WRI  World Resources Institute
REFERENCES


Ewing, Reid and Hamidi, Shima. 2014. Measuring Urban Sprawl and Validating Sprawl Measures, Metropolitan Research Center at the University of Utah for the National Cancer Institute, the Brookings Institution and Smart Growth America (www.smartgrowthamerica.org). Available at: https://gis.cancer.gov/tools/urban-sprawl/.


International Fuel Prices (www.sutp.org/en/resources/publications-by-topic/international-fuel-prices.html) is a website with information on international fuel price reports from GTZ (a German international development agency) and other sources.


NOAA. Cameo Chemicals, Gasoline Chemical Datasheet. Available at: https://cameochemicals.noaa.gov/chemical/11498.


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