

# CLIMATE POLICY

## DATABASE

## Climate Policy Database Codebook

2023 version

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### Disclaimer

The content of this codebook is subject to ongoing revision and improvement. In case you have suggestions, please contact our team.

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# 1. Introduction

The [Climate Policy Database](#) (CPDB) is an open, collaborative tool to advance the data collection of the implementation status of climate policies. This project is funded by the European Union H2020 ELEVATE project and was, in its previous phase, funded under ENGAGE and CD-Links. The database is maintained by NewClimate Institute with support from Wageningen University and Research and PBL Netherlands Environmental Assessment Agency.

The CPDB is annually updated to include latest policy developments. These updated include new policies adopted and updates on existing policies, such as changes to the content and implementation status of policies (for example, when a policy is ended, superseded, or goes from being planned to in force).

In this database a policy can be a law, strategic document, a target, or any other policy document that result in lasting reduction on the country's emissions intensity. The CPDB does not track policies covering very specific areas, such as efficiency standards for individual engine types.

The CPDB closely tracks climate policy developments in 42 countries including the European Union (EU) (see) and includes non-exhaustive information on other countries. The CPDB tracks policies at the national level. The EU is treated as a country for this purpose. Coverage of subnational and supranational policies is non-exhaustive for all countries.

Updating the CPDB is a collaborative effort of country experts who track new policies adopted in individual countries as part of their specific work. This research process includes surveying existing policy databases (see [list on our website](#)), as well as analysing official government documents, third-party reports, news sites and others. Figure 1 illustrates the process of data collection for CPDB updates:

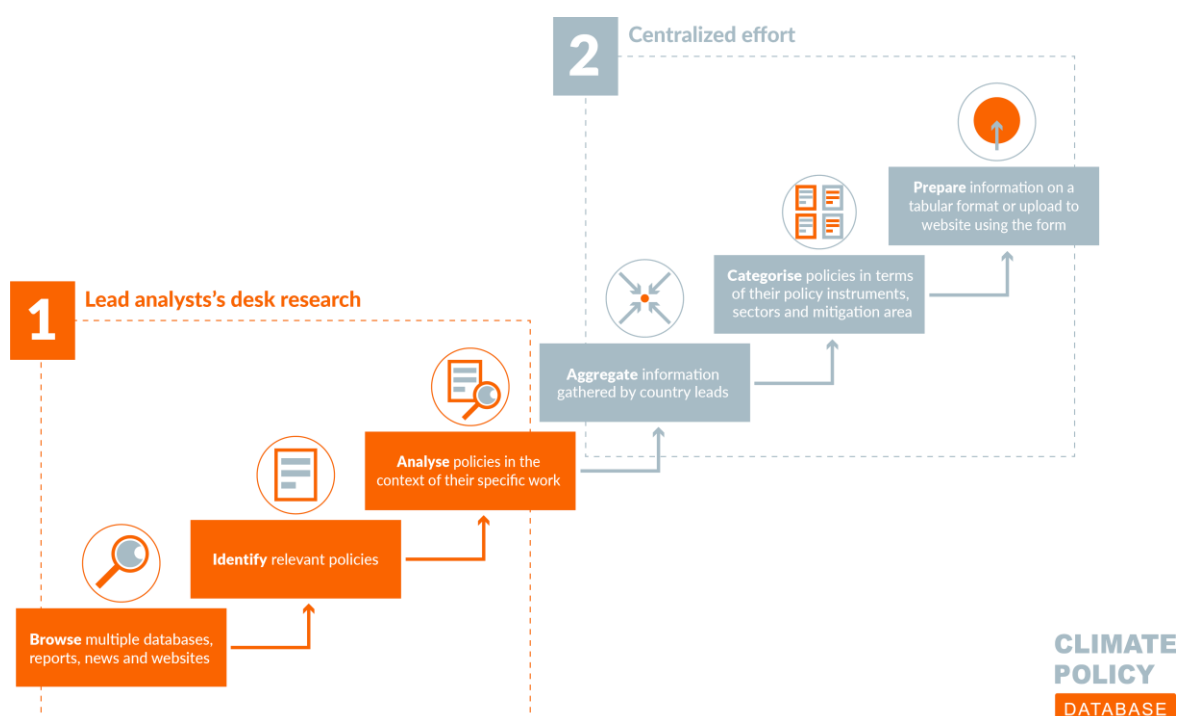


Figure 1. Overview of CDPB data collection process

The CPDB core team collects information from country experts and categorises it according to the CPDB's taxonomies (see below). New or updated policies are checked against existing policies to

ensure consistency and avoid duplication. Finally new policies are uploaded to the CPDB website. Policies for the countries listed in

Table 2 are updated annually. In this update, policies adopted in the previous year are added to the database, with smaller updates also happening throughout the year.

This codebook documents the database variables. Section 2 below includes general considerations regarding the conventions followed in the CPDB data entry. Section 3 provides a full list of the variables included in the database, including information of the purpose and format of each variable, as well as a description of the typologies used for specific fields. This list provides a full account of the information available for each policy within the database.

We aim to establish an open, collaborative platform to gather information on climate-related policies, with full geographical and sectoral coverage. Therefore, we highly welcome comments for continuous improvement and collaboration at: [climatepolicydatabase@newclimate.org](mailto:climatepolicydatabase@newclimate.org).

## 2. Data entry conventions

The organising principle of the database is one entry per policy. The policies included in this database are often a combination of policies with an explicit climate change mitigation objective, such as greenhouse gas emissions reduction strategies; energy policies, that help to decarbonise the energy supply and/or reduce energy demand; and policies that aim to introduce low-emissions practices and technologies to non-energy sectors, such as agriculture and land use. A policy can be a law, strategic document, a target, or any other policy document that result in lasting reduction on the country's emissions intensity.

Once a policy is identified, it is analysed and categorised in terms of the variables described in Section 3. In this Section, we present general conventions followed during the data entry process:

- In case a policy is superseded, we change the status of the original entry and add an end date for that policy at the time the policy ended, i.e. the entry still exists in the database but does not appear 'in force'. A new entry is created based on the new policy.
- When a document is revised periodically, one entry is added to the database with the date of the first document and the description of the policy is updated with each new release. The principle is also valid when there are many documents related to one policy. For example, all laws, decrees, or amendments regarding the current ethanol blending in Brazil are traced back to the main biofuels law (passed in 1993). The 1993 Law was added to the database and the main instrument for ethanol blending in Brazil, details about the changes in the law can, in general, be found in the policy description field.
- A policy document is coded under many policy instruments, sectors, mitigation areas and policy objectives.
- The EU is currently included as one extra country, under jurisdiction "Country".
- The database includes policies that affect domestic GHG emissions. Therefore, public investment programmes for renewable energy outside of the country are not included. However, policies supporting biofuel exports are included, as certain emissions reductions occur inside the country.
- While the IEA databases and other policy data sources, on which this study is based, do not publicly provide the definition for "Strategic planning", this study categorised new policy entries as such when they comprehensively refer to, e.g. modal share shift, transport planning, and compact city planning.

### 1.1.1 Data entry conventions for specific cases

- **Targets:** Three types of targets can be attributed to policies in the database: "Energy efficiency target", "GHG reduction target", and "Renewable energy target". These targets can be sectoral, as well as national. If the target is national, the marked sector is "General". However, if the target addresses only one sector, only that sector is selected (e.g. "Renewable energy target" for biofuel use is categorised in the "Transport" sector). We do not add targets well-beyond 2030.
- **Research funding:** Grants for research programmes were categorised under policy instrument "R&D funding", not "Grants and subsidies."
- **Renewable energy support:** Some policies such as renewable portfolio standards and biofuel blending regulations are targets and at the same time obligatory schemes. For these policies, this study categorised them as both "Renewable energy targets" and "obligation scheme" when the target/obligation values are provided for later than 2020. Otherwise, the policies are categorised only as "obligation scheme". In addition, for biofuels in the transport sector, the

policies are considered only as “obligation scheme” when they refer to the amount of biofuel blending in fuels to be complied with only for selected set of fuels.

- **Biofuels:** Policies that refer to sustainability of biofuels are categorised as “Product standards” and various support schemes for biofuel production are reported under the transport sector. The sustainability assessment of biofuels is categorized under the Agriculture and Forestry sector.
- **Codes and standards for appliances in the buildings sector:** Codes and standards concerning appliances are categorized as “Product standards”, while other types of standards (e.g. heating, cooling, hot water) are categorised as “Codes and standards” or “Building codes and standards”.
- **Planning strategies:** For the buildings sector, policies that address “Energy service demand reduction and resource efficiency”, which indicate structural shifts towards reduced energy service demand, and at least one of the following two (“Strategic planning” or “Infrastructure investments”) were categorised as “Urban planning strategies (including infrastructure investments)” that contribute to climate change mitigation. For the transport sector, the policies tagged with “Energy service demand reduction and resource efficiency” and at least one of the following two (“Strategic planning” or “Infrastructure investments”) were considered to be “Urban planning and infrastructure investment to minimise transport needs” that contribute to climate change mitigation.
- **Overarching mechanisms – Energy taxes, carbon pricing and subsidies:** Information on energy tax rates are based on the OECD “Taxing Energy Use 2019: OECD and Selected Partner Economies” for the countries that are covered in the database (OECD, 2019). For other countries, energy tax-related information is largely based on the IEA databases and IMF studies (IEA, 2016; IMF, 2013, 2015; OECD/IEA, 2019). Note that it was not possible to comprehensively assess the implementation status of energy tax measures due to the lack of information for several countries.
- **Taxes:** all the energy end-use sectors affected by a policy, e.g. electricity and heat, industry, buildings and transport, are reported under fossil fuel taxes including carbon taxes (including e.g. India’s coal tax or Japan’s global warming tax). Taxes on electricity generation and consumption were categorised under the electricity and heat sector, unless it is explicitly mentioned that they are imposed on a consumption basis to particular end-use sectors, i.e. industry, buildings and transport. Moreover, gasoline and diesel taxes are categorised under the transport sector, even when the taxes also apply to (a limited amount of) consumption in other sectors. For “Energy and other taxes”, gross tax rates were considered to avoid overlap with fossil fuel subsidies.
- **Fossil fuel subsidies:** Current publicly available information sources on fossil fuel subsidies apply different accounting methodologies (IEA, 2016; IMF, 2013, 2015, 2019; OECD/IEA, 2019; OECD, 2015). This study considered “direct budgetary transfers and tax expenditures that provide a benefit or preference for fossil-fuel production or consumption” as covered in the OECD Inventory of Support Measures for Fossil Fuels to evaluate whether countries provide fossil fuel subsidies.
  - Fossil fuel subsidies for the **electricity and heat sector** include, e.g. support for construction of fossil fuel power plants.
  - Fossil fuel subsidies for the **industry sector** include, e.g. various types of mining support, subsidies for transportation of fossil fuels or investment in other related infrastructure, subsidized prices for fossil fuels used in various industrial processes, and support for production of secondary fossil fuel products (e.g. coal briquettes).
  - Fossil fuel subsidies for the **transport sector** include, e.g. subsidised prices on fuels used for different means of transport.

- Fossil fuel subsidies for the **buildings sector** include, e.g. subsidised prices on fuels for electricity generation, heating, and cooking fuels. Subsidies on electricity generation and consumption were categorised under the electricity and heat sector, unless it is explicitly mentioned that they are provided on a consumption basis to end-use sectors, i.e. industry, buildings and transport.



### 3. Variables

This chapter provides a list of all the variables included in the Climate Policy Database, providing information regarding the description of each variable, as well as other relevant information for users of the database. Table 1 presents a layout of how each variable is described and what type of information is provided. The list follows the order of the variables from left to right in the database .csv version. As each row of the database represents one policy, each column represents one variable.

Important information to consider while going through the list:

- Not every variable is a mandatory field when adding a policy, and some fields may become mandatory only under certain circumstances.
- Some variables are still under development and while they are included in this list, they are not yet fully operational in the database.
- In some cases, input possibilities for a variable are limited to one or many elements from a given typology, which is always provided below the variable description table.
- The following variables are included in the current version of the CPDB no longer updated: stringency, impact\_indicators.comments, impact\_indicators.name, impact\_indicators.value, impact\_indicators.base\_year, impact\_indicators.target\_year. These variables will be discontinued in upcoming updates as a separate modelling protocol is under development.

Table 1: Layout of variable description table

Category	Description
<b>Variable name</b>	<i>(Name of the variable as shown in the database)</i>
<b>Description</b>	<i>(Purpose of the variable within the database)</i>
<b>Variable type</b>	<i>(Type of value stored in the variable, e.g. numeric or text)</i>
<b>Input format</b>	<i>(Single or multiple values allowed or required, if multiple values are possible, indicate if separated by space, comma, semicolon, or line break)</i>
<b>Mandatory field</b>	<i>(Yes or no)</i>

### 3.1 Policy ID

Category	Description
<b>Variable name</b>	policy_id
<b>Description</b>	<p>This variable identifies each policy in the database. The Policy ID includes both the unique identifier of the policy (five last digits) and the year and date when the policy was included in the database (four first digits).</p> <p>This field was introduced in 2021. Policies added to the database before this year will present the same added date.</p>
<b>Variable type</b>	Unique nominal numerical
<b>Input format</b>	Single 9-digit value: YYMMXXXXX (Year-Month-ID#)
<b>Mandatory field</b>	Yes

### 3.2 ISO-3 country code

Category	Description
<b>Variable name</b>	country_iso
<b>Description</b>	<p>This variable serves to identify to unambiguously identify the country that adopted each policy. ISO 3166-1 alpha-3 codes can be found on the UNSTAT <a href="#">website</a>. The European Union does not have an ISO3 code. Policies that refer to the group are identified by the unique 'EUE' code. The European Union is considered a country for the purposes of the database.</p>
<b>Variable type</b>	Categorical string
<b>Input format</b>	Single 3-letter code
<b>Mandatory field</b>	Yes

### 3.3 Country update frequency

Category	Description
<b>Variable name</b>	country_update
<b>Description</b>	<p>This field reflects whether the country adopting the policy is frequently updated in the CDPB.</p> <p>Out of the 198 countries covered in the CPDB, about 42 (including the EU) are updated annually (see list below). The remaining countries are updated on an ad hoc basis.</p>
<b>Variable type</b>	String
<b>Input format</b>	Single value selected from taxonomy [taxonomy: Annual/Sporadic]
<b>Mandatory field</b>	yes

Table 2: Countries with comprehensive coverage in the CPDB

ISO-3	Country	ISO-3	Country	ISO-3	Country
ARG	Argentina	IDN	Indonesia	SAU	Saudi Arabia
AUS	Australia	IRN	Iran	SGP	Singapore
BTN	Bhutan	JPN	Japan	ZAF	South Africa
BRA	Brazil	KAZ	Kazakhstan	KOR	South Korea
CAN	Canada	KEN	Kenya	CHE	Switzerland
CHL	Chile	MEX	Mexico	THA	Thailand
CHN	China	MAR	Morocco	GMB	The Gambia
COL	Colombia	NPL	Nepal	TUR	Turkey
CRI	Costa Rica	NZL	New Zealand	UKR	Ukraine
EGY	Egypt	NGR	Nigeria	UAE	United Arab Emirates
ETH	Ethiopia	NOR	Norway	GBR	United Kingdom
EUE	European Union	PER	Peru	USA	United States of America
DEU	Germany	PHL	Philippines	VNM	Viet Nam
IND	India	RUS	Russian Federation		

### 3.4 Policy title

Category	Description
<b>Variable name</b>	policy_title
<b>Description</b>	This variable contains the name of the policy in English, as well as the adopting country and the decision year.
<b>Variable type</b>	String
<b>Input format</b>	Single value. Format: Policy name + Country + Year of adoption
<b>Mandatory field</b>	Yes

### 3.5 Policy Name

Category	Description
<b>Variable name</b>	policy_name
<b>Description</b>	This variable contains the name of the policy in English. If possible, with regulation number to facilitate identification. The name of the regulation in the original language can be included in the description of the policy (see 3.13).
<b>Variable type</b>	String
<b>Input format</b>	Single value
<b>Mandatory field</b>	Yes

### 3.6 Jurisdiction

Category	Description
<b>Variable name</b>	jurisdiction
<b>Description</b>	This variable indicates the jurisdiction under which the policy is implemented
<b>Variable type</b>	String
<b>Input format</b>	Single value selected from taxonomy (see below)
<b>Mandatory field</b>	Yes

Table 3: Policy jurisdiction typology

Jurisdiction	Description
<b>Country</b>	Policy adopted and implemented at the national level.
<b>Subnational region</b>	Policy adopted and implemented at the subnational region level.
<b>City</b>	Policy adopted and implemented at the municipal level.
<b>Supranational region</b>	Policy adopted at national level by distinct countries and implemented between them.

### 3.7 Supranational region

Category	Description
<b>Variable name</b>	supernational_region
<b>Description</b>	When the option “Supranational region” has been selected at the “Jurisdiction” field, the group of adopting countries is specified here.
<b>Variable type</b>	String
<b>Input format</b>	Single or multiple values. In case of multiple values, they are separated by commas (.).
<b>Mandatory field</b>	No

### 3.8 Country

Category	Description
<b>Variable name</b>	country
<b>Description</b>	This variable indicates the adopting country
<b>Variable type</b>	String
<b>Input format</b>	Single value selected from taxonomy (see below)
<b>Mandatory field</b>	No

Table 4: Country ISO-3 code list

ISO-3	Country
AFG	Afghanistan
ALA	Åland Islands
ALB	Albania
DZA	Algeria
ASM	American Samoa
AND	Andorra
AGO	Angola
AIA	Anguilla
ATA	Antarctica
ATG	Antigua and Barbuda
ARG	Argentina
ARM	Armenia
ABW	Aruba
AUS	Australia
AUT	Austria
AZE	Azerbaijan
BHS	Bahamas
BHR	Bahrain
BGD	Bangladesh
BRB	Barbados
BLR	Belarus
BEL	Belgium
BLZ	Belize
BEN	Benin
BMU	Bermuda
BTN	Bhutan
BOL	Bolivia, Plurinational State of
BIH	Bosnia and Herzegovina
BWA	Botswana
BVT	Bouvet Island
BRA	Brazil
IOT	British Indian Ocean Territory
BRN	Brunei Darussalam
BGR	Bulgaria
BFA	Burkina Faso
BDI	Burundi
KHM	Cambodia
CMR	Cameroon
CAN	Canada
CPV	Cape Verde
CYM	Cayman Islands
CAF	Central African Republic
TCD	Chad
CHL	Chile
CHN	China
CXR	Christmas Island

ISO-3	Country
CCK	Cocos (Keeling) Islands
COL	Colombia
COM	Comoros
COG	Congo
COD	Congo, the Democratic Republic of the
COK	Cook Islands
CRI	Costa Rica
CIV	Côte d'Ivoire
HRV	Croatia
CUB	Cuba
CYP	Cyprus
CZE	Czechia
DNK	Denmark
DJI	Djibouti
DMA	Dominica
DOM	Dominican Republic
ECU	Ecuador
EGY	Egypt
SLV	El Salvador
GNQ	Equatorial Guinea
ERI	Eritrea
EST	Estonia
ETH	Ethiopia
FLK	Falkland Islands (Malvinas)
FRO	Faroe Islands
FJI	Fiji
FIN	Finland
FRA	France
GUF	French Guiana
PYF	French Polynesia
ATF	French Southern Territories
GAB	Gabon
GMB	Gambia
GEO	Georgia
DEU	Germany
GHA	Ghana
GIB	Gibraltar
GRC	Greece
GRL	Greenland
GRD	Grenada
GLP	Guadeloupe
GUM	Guam
GTM	Guatemala
GGY	Guernsey
GIN	Guinea
GNB	Guinea-Bissau
GUY	Guyana

ISO-3	Country
HTI	Haiti
HMD	Heard Island and McDonald Islands
VAT	Holy See (Vatican City State)
HND	Honduras
HKG	Hong Kong
HUN	Hungary
ISL	Iceland
IND	India
IDN	Indonesia
IRN	Iran
IRQ	Iraq
IRL	Ireland
IMN	Isle of Man
ISR	Israel
ITA	Italy
JAM	Jamaica
JPN	Japan
JEY	Jersey
JOR	Jordan
KAZ	Kazakhstan
KEN	Kenya
KIR	Kiribati
PRK	Democratic People's Republic of Korea
KOR	Republic of Korea
KWT	Kuwait
KGZ	Kyrgyzstan
LAO	Lao People's Democratic Republic
LVA	Latvia
LBN	Lebanon
LSO	Lesotho
LBR	Liberia
LBY	Libyan Arab Jamahiriya
LIE	Liechtenstein
LTU	Lithuania
LUX	Luxembourg
MAC	Macao
MKD	Macedonia, the former Yugoslav Republic of
MDG	Madagascar
MWI	Malawi
MYS	Malaysia
MDV	Maldives
MLI	Mali
MLT	Malta
MHL	Marshall Islands
MTQ	Martinique

ISO-3	Country
<b>MRT</b>	Mauritania
<b>MUS</b>	Mauritius
<b>MYT</b>	Mayotte
<b>MEX</b>	Mexico
<b>FSM</b>	Micronesia, Federated States of
<b>MDA</b>	Moldova, Republic of
<b>MCO</b>	Monaco
<b>MNG</b>	Mongolia
<b>MNE</b>	Montenegro
<b>MSR</b>	Montserrat
<b>MAR</b>	Morocco
<b>MOZ</b>	Mozambique
<b>MMR</b>	Myanmar
<b>NAM</b>	Namibia
<b>NRU</b>	Nauru
<b>NPL</b>	Nepal
<b>NLD</b>	Netherlands
<b>ANT</b>	Netherlands Antilles
<b>NCL</b>	New Caledonia
<b>NZL</b>	New Zealand
<b>NIC</b>	Nicaragua
<b>NER</b>	Niger
<b>NGA</b>	Nigeria
<b>NIU</b>	Niue
<b>NFK</b>	Norfolk Island
<b>MNP</b>	Northern Mariana Islands
<b>NOR</b>	Norway
<b>OMN</b>	Oman
<b>PAK</b>	Pakistan
<b>PLW</b>	Palau
<b>PSE</b>	Palestinian Territory, Occupied
<b>PAN</b>	Panama
<b>PNG</b>	Papua New Guinea
<b>PRY</b>	Paraguay
<b>PER</b>	Peru
<b>PHL</b>	Philippines
<b>PCN</b>	Pitcairn
<b>POL</b>	Poland
<b>PRT</b>	Portugal

ISO-3	Country
<b>PRI</b>	Puerto Rico
<b>QAT</b>	Qatar
<b>REU</b>	Réunion
<b>ROU</b>	Romania
<b>RUS</b>	Russian Federation
<b>RWA</b>	Rwanda
<b>BLM</b>	Saint Barthélemy
<b>SHN</b>	Saint Helena, Ascension and Tristan da Cunha
<b>KNA</b>	Saint Kitts and Nevis
<b>LCA</b>	Saint Lucia
<b>MAF</b>	Saint Martin (French part)
<b>SPM</b>	Saint Pierre and Miquelon
<b>VCT</b>	Saint Vincent and the Grenadines
<b>WSM</b>	Samoa
<b>SMR</b>	San Marino
<b>STP</b>	Sao Tome and Principe
<b>SAU</b>	Saudi Arabia
<b>SEN</b>	Senegal
<b>SRB</b>	Serbia
<b>SYC</b>	Seychelles
<b>SLE</b>	Sierra Leone
<b>SGP</b>	Singapore
<b>SVK</b>	Slovakia
<b>SVN</b>	Slovenia
<b>SLB</b>	Solomon Islands
<b>SOM</b>	Somalia
<b>ZAF</b>	South Africa
<b>SGS</b>	South Georgia and the South Sandwich Islands
<b>ESP</b>	Spain
<b>LKA</b>	Sri Lanka
<b>SDN</b>	Sudan
<b>SUR</b>	Suriname
<b>SJM</b>	Svalbard and Jan Mayen
<b>SWZ</b>	Swaziland

ISO-3	Country
<b>SWE</b>	Sweden
<b>CHE</b>	Switzerland
<b>SYR</b>	Syrian Arab Republic
<b>TWN</b>	Taiwan, Province of China
<b>TJK</b>	Tajikistan
<b>TZA</b>	Tanzania, United Republic of
<b>THA</b>	Thailand
<b>TLS</b>	Timor-Leste
<b>TGO</b>	Togo
<b>TKL</b>	Tokelau
<b>TON</b>	Tonga
<b>TTO</b>	Trinidad and Tobago
<b>TUN</b>	Tunisia
<b>TUR</b>	Turkey
<b>TKM</b>	Turkmenistan
<b>TCA</b>	Turks and Caicos Islands
<b>TUV</b>	Tuvalu
<b>UGA</b>	Uganda
<b>UKR</b>	Ukraine
<b>ARE</b>	United Arab Emirates
<b>GBR</b>	United Kingdom
<b>USA</b>	United States of America
<b>UMI</b>	United States Minor Outlying Islands
<b>URY</b>	Uruguay
<b>UZB</b>	Uzbekistan
<b>VUT</b>	Vanuatu
<b>VEN</b>	Venezuela, Bolivarian Republic of
<b>VNM</b>	Viet Nam
<b>VGB</b>	Virgin Islands, British
<b>VIR</b>	Virgin Islands, U.S.
<b>WLF</b>	Wallis and Futuna
<b>ESH</b>	Western Sahara
<b>YEM</b>	Yemen
<b>ZMB</b>	Zambia
<b>ZWE</b>	Zimbabwe

### 3.9 Subnational region or state

Category	Description
Variable name	subnational_region
Description	This variable indicates the subnational region adopting the policy. It is filled when the option “Subnational region or state” has been selected at the “Jurisdiction” field.
Variable type	String
Input format	Single value
Mandatory field	No

### 3.10 City or local

Category	Description
Variable name	policy_city_or_local
Description	This variable indicates the city or municipality adopting the policy. It is filled when the option “City or local” has been selected at the “Jurisdiction” field.
Variable type	String
Input format	Single value
Mandatory field	No

### 3.11 Policy Instrument

Category	Description
Variable name	policy_instrument
Description	This variable indicates the policy instrument(s) used.
Variable type	String
Input format	Single or multiple values selected from taxonomy. In case of multiple values, they are separated by commas (,).
Mandatory field	Yes

The policy instruments taxonomy was developed based on the [IEA policies database](#), to which a set of new categories were added. The complete list of policy instrument options is provided in Table 5. The main policy instrument types in our analysis are summarized below:

- **Economic instruments:** Support certain technologies, activities, behaviours or investments using financial supports and price signals to influence the market. Due to the diversity of economic instruments we further divide this category into:
  - *Direct investments*
  - *Fiscal or financial incentives*
  - *Market-based instruments*

- **Codes and standards:** Cover a wide range of instruments which impose targets, obligations and standards on actors or technologies. These include, for example, performance standards for appliances, equipment, and buildings.
- **Voluntary approaches:** Refer to measures that are undertaken voluntarily or are negotiated among actors. Voluntary commitments are when actors set targets affecting their own operation and communicate compliance, these can also apply to a constellation of actors that make a commitment voluntarily. These commitments can also be initiated by public actors who invite private actors to submit commitments. Negotiated agreements may require reporting and be subject to audits.

Table 5: Policy instrument typology

Category	Sub-category	Policy instrument	Description
<b>Economic instruments</b>	Direct investment	Funds to sub-national governments	Direct transfer of funds from national to sub-national governments for activities that have a potential to reduce the region's GHG emissions.
		Infrastructure investments	Direct funding for infrastructure projects with a mitigation component (Qureshi, 2016).
		Procurement rules	Government public procurement policies aimed towards increasing sustainability and reducing the emissions intensity of goods and services purchased (van Asselt et al., 2006).
		RD&D funding	Direct government funding for green R&D programmes or projects (Arnold, 2012).
	Fiscal or financial incentives	CO <sub>2</sub> taxes	Tax on carbon emissions associated with an activity measured by the quantity of emissions (Center for Climate and Energy Solutions, 2021).
		Energy and other taxes	Tax on energy or goods and services that are carbon-intensive. This instrument includes several forms of environmental taxation that reduce total emissions or emissions intensity (Center for Climate and Energy Solutions, 2021).
		Feed-in tariffs or premiums	Renewable electricity price surcharge to benefit producers (Haas et al., 2004).
		Grants and subsidies	Government support for mitigation activities through non-repayable funding specific purposes (grants) or reduced prices of specific goods and services (subsidies)
		Loans	Government support for mitigation activities through repayable funding for specific activities.
		Net metering	Policy to allow consumers who generate their own electricity to trade with the grid through retail credit (Poullikkas et al., 2013).



Category	Sub-category	Policy instrument	Description
		Tax relief	Rebate or elimination of specific taxes for selected activities or actors with the purpose of incentivizing mitigation activities (Haas et al., 2004).
		User charges	Policies that foster changes in user behaviour, for example reduction of available parking places. This instrument is often combined with others.
		Tendering schemes	Bidding competition by potential providers of a required good or service aimed at reducing provision costs, e.g., through auctions (del Río & Bleda, 2012).
		Retirement premium	Financial incentive for the early retirement of emissions-intensive or inefficient assets, e.g., vehicles or power plants.
		User charges	Levy on the use of government owned or provided goods and services for mitigation purposes (Bell, 1995).
	Market-based instruments	GHG emissions allowances	Government established GHG emissions limits or caps on specific actors which can be traded to incentivize cost-effective emissions reductions (World Bank, 2016).
		GHG emission reduction crediting and offsetting mechanism	Baseline-and-Credit schemes where mitigation activities can calculate their impact against a baseline to obtain credits which can be sold for offsetting purposes (World Bank, 2016).
		Green certificates	Scheme for the generation of tradable renewable energy certificates (Morthorst, 2003).
		White certificates	Scheme for the generation of tradable energy savings certificates produced by energy efficiency activities measured against a baseline (Giraudet et al., 2012).
	<b>Regulatory Instruments</b>	Codes and standards	Building codes and standards
Industrial air pollution standards			Mandatory standards for the emission of polluting substances by industry actors including but not limited to GHG gases (Rissman et al., 2020).
Product standards			Mandatory standards for specific products to limit their energy or emissions intensity or their environmental impact in general (Sachs, 2012)
Sectoral standards			Sector-wide mandatory standards with mitigation purposes (OECD & IEA, 2007).
Vehicle air pollution standards			Mandatory standards for the maximum emission of air pollutants such as hydrocarbons, oxides of nitrogen and particulate matter for new vehicles (Kodjak, 2015).

Category	Sub-category	Policy instrument	Description
		Vehicle fuel-economy and emissions standards	Mandatory standards for the maximum emission of GHGs and minimum fuel-efficiency for new vehicles (Kodjak, 2015).
		Auditing	Inspection schemes to enforce compliance of specific actors with established rules and standards.
		Monitoring	Continuous and systematic collection of data to supervise specific activities for evaluation and enforcement purposes.
		Obligation schemes	Mandatory requirement to comply with regular quotas for mitigation-related outcomes, such as yearly energy efficiency improvements for businesses (European Commission, 2012).
		Other mandatory requirements	This category includes any mitigation-related obligations not covered by previous instruments.
<b>Information and education</b>	Performance label	Comparison label	Consumer-oriented labelling schemes which provide a rating of a certain good or service against a pre-determined scale, allowing for a comparison across products (Grolleau et al., 2015).
		Endorsement label	Consumer-oriented labelling schemes which inform that a certain good or product adapts to pre-defined minimum standards related to mitigation outcomes (Grolleau et al., 2015).
		Advice and Aid in implementation	Assistance programs for actors engaging in mitigation-related activities.
		Information provision	Schemes aimed at increasing access to information with potential positive mitigation outcomes, such as energy savings potentials or existing mitigation incentive policies.
		Professional training and qualification	Training programs for activities associated directly or indirectly with mitigation outcomes.
<b>Policy support</b>		Institutional creation	Establishment of an institution to regulate a mitigation-relevant sector (see sector typology in section 3.12)
		Strategic planning	Policies establishing strategic priorities and roadmaps for specific sectors or economy wide.
<b>RD&amp;D (out)</b>	Research programme	Technology deployment and diffusion	Incentive schemes to accelerate the production of near-to-market technologies with mitigation potential (Sánchez-Sellero & Bataineh, 2021).

Category	Sub-category	Policy instrument	Description
		Technology development	Incentive schemes to support nascent technologies with mitigation potential (Sánchez-Sellero & Bataineh, 2021).
		Demonstration project	Support for the implementation of pre-operational technologies or new uses of existing technologies (Bossink, 2017).
<b>Voluntary approaches</b>		Negotiated agreements (public/private sector)	Partnerships between public and private actors for the implementation of mitigation-related activities or agreed voluntary commitments (Kang et al., 2012).
		Public voluntary schemes	
		Unilateral commitments (private sector)	Commitments made voluntarily by private actors relating to mitigation outcomes, including renewable energy sourcing, electrification of vehicle fleets, internal carbon pricing or emissions reduction targets among others (Kang et al., 2012).
<b>Barrier removal</b>		Removal of fossil fuel subsidies	Removal of existing subsidies either at the production or consumption ends (Timperley, 2021).
		Removal of split incentives (landlord tenant problem)	Schemes aimed overcoming incentive barriers such as a landlord-tenant problem and increasing energy efficiency in the building sector (Bird & Hernández, 2012).
		Grid access and priority for renewables	Mandatory requirement to give priority to renewable energy producers and guaranteeing full purchase of their electricity (Zhang, 2019).
<b>Climate strategy</b>		Formal & legally binding climate strategy	Climate change economy-wide strategies which are enshrined in law
		Political & non-binding climate strategy	Climate change economy-wide strategies which are not enshrined in law and rather adopted through policy documents published by government agencies.
		Coordinating body for climate strategy	The creation of a dedicated institution to regulate and monitor climate change responses and strategies.
<b>Target</b>	Energy efficiency target	Formal & legally binding energy efficiency target	Sectoral or economy-wide target which is enshrined in law.
		Political & non-binding energy efficiency target	Sectoral or economy-wide target which is not enshrined in law and rather adopted through policy documents published by government agencies.

Category	Sub-category	Policy instrument	Description
	GHG reduction target	Formal & legally binding GHG reduction target	Sectoral or economy-wide target which is enshrined in law.
		Political & non-binding GHG reduction target	Sectoral or economy-wide target which is not enshrined in law and rather adopted through policy documents published by government agencies.
	Renewable energy target	Formal & legally binding renewable energy target	Sectoral or economy-wide target which is enshrined in law.
		Political & non-binding renewable energy target	Sectoral or economy-wide target which is not enshrined in law and rather adopted through policy documents published by government agencies.

### 3.12 Sector

Category	Description
<b>Variable name</b>	sector
<b>Description</b>	This variable indicates the sector(s) impacted by the policy. Economy-wide policies are categorized as “General”. Information from this field serves to organize policies by row within our policy matrix.
<b>Variable type</b>	String
<b>Input format</b>	Single or multiple values selected from taxonomy. In case of multiple values, they are separated by commas (,).
<b>Mandatory field</b>	Yes

Table 6: Sector typology

Sector	Description	Sub-sector
<b>Agriculture and forestry</b>	Policies to increase sustainable practice in agriculture and those targeting better forest management. Policies associated with sustainability standards for biomass used as a source for biofuels in other sectors are also included in this sector.	Agricultural CH4
		Agricultural CO2
		Agricultural N2O
		Forestry
<b>Buildings</b>	Policies that target energy-use in buildings. These policies address building structure, appliances, cooking and heating/cooling devices. It also includes urban planning strategies that include retrofits.	Appliances
		Construction
		Heating and cooling
		Hot water and cooking
<b>Electricity and heat</b>	Policies related to energy supply and enabling infrastructure, such as transmission and distribution grids. This sector does not include	CCS
		Coal
		Gas
		Nuclear

Sector	Description	Sub-sector
	policies related to fossil fuel exploration and production.	Oil
		Renewables
<b>General</b>	Cross-sectoral policies or policies that apply to any sector and that provide framing for or enable the implementation of other sectoral policies. These include, but are not limited to, national or sectoral climate strategies and Research and Development (R&D) policies.	General
<b>Industry</b>	Policies covering both energy-generation for own use and process-related emissions. This sector also includes policies related to other non-energy emissions. For example, emissions related to waste or fossil fuel exploration.	Fluorinated gases
		Fossil fuel exploration and production
		Industrial energy related
		Industrial N2O
		Industrial process CO2
		Negative emissions
		Waste (CH4)
<b>Transport</b>	Policies related to all modes of land transportation and infrastructure programmes that might reduce transport needs (e.g. urban planning).	Air
		Heavy-duty vehicles
		Light-duty vehicles
		Low-emissions mobility
		Public transport
		Rail
		Shipping

### 3.13 Description

Category	Description
<b>Variable name</b>	policy_description
<b>Description</b>	This variable serves to provide details on the content of the adopted policy, or regarding contextual information that cannot be otherwise incorporated within the data structure, such as the original language name of the policy, details of any targets or strategies included in the document, as well as details on amendments or planned changes to the policy.
<b>Variable type</b>	String
<b>Input format</b>	Free text
<b>Mandatory field</b>	No (Recommended)

### 3.14 Mitigation area (policy type)

Category	Description
<b>Variable name</b>	policy_type
<b>Description</b>	This variable serves to identify how a policy contributes to mitigation outcomes. Information from this field serves to organize policies by column within our policy matrix,
<b>Variable type</b>	String

Category	Description
<b>Input format</b>	Single or multiple values selected from taxonomy. In case of multiple values, they are separated by commas (,).
<b>Mandatory field</b>	Yes

Table 7: Mitigation area typology

Mitigation area	Description
<b>Energy service demand reduction and resource efficiency</b>	Policy options that aim to indirectly reduce energy demand by supporting activity changes are categorized separately from energy efficiency. These are policy options that aim at, for example, reducing material use in manufacturing industries or developing urban planning strategies to minimize transport needs.
<b>Energy efficiency</b>	Policy options categorized under this area ultimately aim to reduce energy consumption in the different sectors. It includes both framing policies aiming at reducing energy consumption, such as energy efficiency targets, as well as policy options that support energy reductions.
<b>Renewables</b>	Policy options in this area aim to support the development of renewable technologies in the respective sectors. Such support might take a direct form, via subsidies or loans, or indirect e.g. by developing grid infrastructure technology that support the integration of high share of variable electricity generation technologies.
<b>Non-energy use</b>	This area includes policy options aiming to reduce non-energy related emissions. For example, policies to reduce fugitive emissions in fossil fuel production or process-related industrial emissions.
<b>Other low-carbon technologies and fuel switch</b>	To accomplish the switch to low-carbon sources the decline of emitting technologies must be complemented by the uptake low-emissions alternatives besides renewables. This area includes policy options that tackle the uptake of non-renewable low-carbon technologies as well as options that impose limitations on the use of emissions-intensive technologies, e.g. coal- and oil-fuelled technologies.
<b>Unknown</b>	This area includes policies where it is not clear if/how they contribute to mitigation. Adaptation policies, for example, might have a positive mitigation impact, but unless it is specifically addressed in the policy document, it remains uncertain.

### 3.15 Policy Stringency

Category	Description
<b>Variable name</b>	stringency
<b>Description</b>	This variable serves to identify the level of stringency of an adopted policy
<b>Variable type</b>	Ordinal numerical variable
<b>Input format</b>	Single value on a scale of 1 (one) to 5 (five)
<b>Mandatory field</b>	No (parked)

### 3.16 Implementation state

Category	Description
<b>Variable name</b>	policy_status
<b>Description</b>	This variable serves to identify the current legal status of policies
<b>Variable type</b>	Text value
<b>Input format</b>	Single value selected from taxonomy
<b>Mandatory field</b>	Yes

Table 8: Implementation state typology

State	Description
<b>In force</b>	Policy is currently being implemented and/or enforced.
<b>Planned</b>	Policy has been discussed and designed, but its implementation start date is set in the future. The policy can still be modified before adoption.
<b>Ended</b>	Policies with a determined implementation timeframe, such as five-year plans, are marked as ended when their end-date is due.
<b>Superseded</b>	Policy has been replaced by a new distinct policy. In case a policy is updated and parts of it change, the changes can be included in the policy description, but the policy remains as “In force”.
<b>Draft</b>	In many cases, policy drafts are submitted for public or otherwise external consultation before being approved by the corresponding authorities. These can be added to the database under the “Draft” category but need to be updated once the final version of the policy is adopted.
<b>Under review</b>	This category includes policies which are already in force but are required to undergo modifications to continue being in force. This need can derive for example from reported ineffectiveness of the policy, or due to new policies or targets that prompt an adjustment in existing policies.
<b>Unknown</b>	There is not enough information available to identify the current implementation status of a given policy.

### 3.17 Date of decision

Category	Description
<b>Variable name</b>	decision_date
<b>Description</b>	This variable serves to identify the year on which the decision to adopt a policy has been made
<b>Variable type</b>	Ordinal numerical variable
<b>Input format</b>	Single 4-digit value in format YYYY
<b>Mandatory field</b>	Yes

### 3.18 Start date

Category	Description
Variable name	start_date
Description	This variable serves to identify the year on which the policy starts to take effect. Whenever no information is provided for this field, it is assumed that the decision and start dates coincide.
Variable type	Ordinal numerical variable
Input format	Single 4-digit value in format YYYY
Mandatory field	No

### 3.19 End date

Category	Description
Variable name	end_date
Description	This variable serves to identify the year on which a policy stops to take effect. Whenever a policy's implementation state is marked as "Ended", an end date is provided.
Variable type	Ordinal numerical variable
Input format	Single 4-digit value in format YYYY
Mandatory field	No*

\*See description.

### 3.20 High impact

Category	Description
Variable name	high_impact
Description	<p>This variable serves to classify the expected/observed level of impact of a given policy.</p> <p>High impact policies were identified using a combination of different methods.</p> <p>First, policies were identified by country experts. These experts were asked to identify the most impactful policies in their context. The method to identify policies is the same across countries but the results are country dependent. The content of this variable is not a result of <i>ex-post</i> analysis of the effectiveness of these policies and are better interpreted as reflecting country experts' expectations about their effect.</p> <p>Second, policies which are explicitly quantified in countries' current policy GHG projections were also considered to have high impact. This includes projections prepared by national governments as well as independent research groups. Information on latest policy projections taken from Nascimento et al. (2022).</p>



Category	Description
<b>Variable type</b>	String
<b>Input format</b>	Single value selected from taxonomy
<b>Mandatory field</b>	No (parked)

Table 9: High impact evaluation typology

Impact	Description
<b>High</b>	Policies identified by country-experts as policy interventions with high potential impact in the coming decade (up to 2030), or policies included in national current policy GHG projections.
<b>Unclear</b>	Policies which were identified as high-impact policies by some experts, but not by others or policies that were identified as high-impact but cannot be quantified due to the lack of targets or impact indicators.
<b>Unknown</b>	Policies that were not identified by national experts as high-impact policies or were evaluated by national experts and were not explicitly included in national current policy GHG projections.

### 3.21 Policy objective

Category	Description
<b>Variable name</b>	policy_objective
<b>Description</b>	This variable serves to specify the objectives of a policy
<b>Variable type</b>	Text value
<b>Input format</b>	Single or multiple values selected from taxonomy
<b>Mandatory field</b>	Yes

Table 10: Policy objective typology

Policy objective	Description
<b>Mitigation</b>	Mitigation – reducing climate change – involves reducing the flow of heat-trapping greenhouse gases into the atmosphere, either by reducing sources of these gases or enhancing the “sinks” that accumulate and store these gases (NASA, 2021).
<b>Adaptation</b>	Adaptation – adapting to life in a changing climate – involves adjusting to actual or expected future climate. The goal is to reduce vulnerability to harmful effects of climate change (NASA, 2021).
<b>Economic development</b>	Policies aiming to grow the whole economy or a specific industry or sector either in size or in productivity. Economic development policies will be included in the CPDB as long as they also consider mitigation or adaptation aspects (IECD, 2021).
<b>Energy access</b>	Policies to enhance energy access include rural electrification programs or electricity market regulation changes aimed at making subsidies be more effective and reach those most in need. These policies can include a mitigation component when

Policy objective	Description
	expanding energy access is done through new renewables generation capacity instalments (IEA, 2020).
<b>Food security</b>	Food security, as defined by the United Nations' Committee on World Food Security, means that all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their food preferences and dietary needs for an active and healthy life. Policies aiming at guaranteeing this can be related to adaptation strategies in climate policy (IFPRI, 2021).
<b>Land use</b>	Policies that affect land use and the process of land use planning. These can have a big impact not only on mitigation outcomes, but also on adaptation and biodiversity. Sustainable land management policies regulate the process of land use, land use change and forestry to enable land users to maximize the economic and social benefits of land, while maintaining or enhancing the ecological support functions of its resources (Metternicht, 2017).
<b>Water</b>	Water management policies are usually considered within land use management. These aim to sustainably manage water and sanitation to guarantee a stable supply and minimum quality standards (International Water Association, 2021).

### 3.22 Source

Category	Description
<b>Variable name</b>	reference
<b>Description</b>	This variable serves to document policies by providing a link to policy documents, legislations, or official announcements. Preferably are provided in English, but when official documents are not available in English, an extra link is provided with an English summary or description of the policy.
<b>Variable type</b>	String
<b>Input format</b>	Single or multiple URLs. In case of multiple values, they are separated by line breaks.
<b>Mandatory field</b>	Yes

### 3.23 Impact indicators: comments

Category	Description
<b>Variable name</b>	impact_indicators.comments
<b>Description</b>	This variable serves to provide details on given impact indicators for a policy.
<b>Variable type</b>	String
<b>Input format</b>	Free text
<b>Mandatory field</b>	No (parked)

### 3.24 Impact indicators: name

Category	Description
<b>Variable name</b>	impact_indicators.name
<b>Description</b>	This variable serves to identify impact indicators provided within a policy, such as new standards or targets.
<b>Variable type</b>	String
<b>Input format</b>	Single or multiple values selected from taxonomy. In case of multiple values, they are separated by commas (,).
<b>Mandatory field</b>	No (parked) – this variable is not consistently updated since 2018

Table 11. Impact indicator typology

Impact indicator
GHG emissions reduction (%)
GHG emissions reduction (GtCO <sub>2</sub> eq)
GHG intensity per GDP reduction (%)
GHG intensity per GDP target (gCO <sub>2</sub> eq/US\$)
Energy efficiency improvement target (%)
Energy efficiency target (J/US\$)
Energy efficiency target (kWh/US\$)
Energy intensity per GDP improvement target (%)
Share of renewables (%)
Capacity of renewables (MW)
Electricity generation emissions (gCO <sub>2</sub> /kWh)
Vehicle emissions standards (gCO <sub>2</sub> /km)
Vehicle fuel consumption (km/l)
Blend of biofuel in gasoline (%)
Blend of biofuel in diesel (%)
Building energy performance standard (kWh/cap)
Building energy performance standard (kWh/ m <sup>2</sup> )
Building energy performance standard (PJ/cap)
Building energy performance standard (PJ/m <sup>2</sup> )
Deforested area (ha/year)
Afforested/Reforested area (ha/year)
GHG emissions (total GtCO <sub>2</sub> eq)

### 3.25 Impact indicators: value

Category	Description
<b>Variable name</b>	impact_indicators.value
<b>Description</b>	This variable serves to provide a value for identified impact indicators provided within a policy.

Category	Description
<b>Variable type</b>	Nominal numerical variable
<b>Input format</b>	Single or multiple values. In case of multiple values, they are separated by commas (,). In case of fractional values, the decimal separator is a period (.).
<b>Mandatory field</b>	No (parked) – this variable is not consistently updated since 2018

### 3.26 Impact indicators: base year

Category	Description
<b>Variable name</b>	impact_indicators.base_year
<b>Description</b>	This variable serves to provide a base year for identified impact indicators provided within a policy. This field is only relevant for targets that require a baseline such as percentual GHG reduction targets.
<b>Variable type</b>	Ordinal numerical variable
<b>Input format</b>	Single or multiple values. In case of multiple values, they are separated by commas (,).
<b>Mandatory field</b>	No (parked) – this variable is not consistently updated since 2018

### 3.27 Impact indicators: target year

Category	Description
<b>Variable name</b>	impact_indicators.target_year
<b>Description</b>	This variable serves to provide a target year for identified impact indicators provided within a policy.
<b>Variable type</b>	Ordinal numeric value
<b>Input format</b>	Single or multiple values. In case of multiple values, they are separated by commas (,).
<b>Mandatory field</b>	No (parked) – this variable is not consistently updated since 2018

### 3.28 Last updated

Category	Description
<b>Variable name</b>	last_update
<b>Description</b>	<p>Policies are subject to continuous updates. These aim to reflect real updates to the policy or improvements in the interpretation of that policy, such as on its description and policy instruments.</p> <p>This column indicates when the entry was last updated. This date will often differ from the first four digits of the Policy ID. This field was introduced in 2021. Therefore, policies that existed in the database before then will be empty until they are updated.</p>

<b>Variable type</b>	Date
<b>Input format</b>	DD/MM/YYYY
<b>Mandatory field</b>	No

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