



**Climate change: data and policy**

Vlad Trusca, UN Climate Change Secretariat

49th UN Statistical Commission - Side Event: Climate Change - Linking Statistics and Policy

# Who are we?

- UNFCCC - United Nations Framework Convention on Climate Change, 1992
- Kyoto Protocol, 1997 & Doha Amendment, 2014
- Paris Agreement, 2015



- intergovernmental negotiations
- constituted bodies
- technical expertise
- analysis of info & data

**"...stabilize GHG concentrations in the atmosphere at a level that will prevent dangerous human interference with the climate system."**



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# Reporting & Review

- **Mostly under Convention & Kyoto Protocol + Nationally Determined Contributions under Paris A.**
- **Two groups of Parties:**
  - Annex I Parties (developed countries)
  - Non-Annex I Parties (developing countries)
- **Different requirements:**
  - Methodological basis (IPCC guidelines)
  - Content & frequency
  - Conditional on funding (Non-Annex I Parties)
  - Rigorous review process (Annex I Parties)

Annex I  
Parties

Non-Annex I  
Parties

All Parties  
of PA

# Annex I Parties - 44

- **GHG Inventory** - annually:
  - Based on official data from Statistical Offices
  - Data in formatted tables (CRF)
  - Methodological report (NIR)
- **National Communication (NC)** - every 4 years
- **Biennial Report (BR)** - every 2 years
  - Policy-related info (mitigation, adaptation, funding, etc.)
- Methodological basis - 2006 IPCC guidelines

TABLE 2 SECTORAL REPORT FOR AERIAL TRANSPORT  
Sheet 1 of 2

	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>EUROPEAN COALITION FOR AIR TRANSPORT</b>									
<b>Austria</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Belgium</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Denmark</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>France</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Germany</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Greece</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Ireland</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Italy</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Latvia</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Lithuania</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Malta</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Netherlands</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Poland</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Portugal</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Spain</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Slovakia</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Slovenia</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Sweden</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Switzerland</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Turkey</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>United Kingdom</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>EUROPEAN COALITION FOR AIR TRANSPORT</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



# Non-Annex I Parties - 153

- **Only under Convention**
- **National Communication (NC)** - every 4 years
- **Biennial Update Report (BUR)** - every 2 years
  - Policy-related info (mitigation, adaptation, funding and capacity building needs)
  - Depending on funding
- **GHG Inventory** - less detailed, included in NC/BUR
  - flexibility to use 1996 IPCC Guidelines
- **National Adaptation Plan (NAP)**
- **National Adaptation Programme of Action (NAPA)** - LDCs

Fourth National  
Communication  
of the Republic of Moldova  
Submission to the United Nations Framework Convention on Climate Change

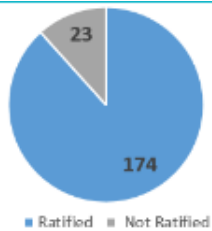
SOCIALIST REPUBLIC OF VIET NAM  
MINISTRY OF NATURAL RESOURCES AND ENVIRONMENT

THE SECOND BIENNIAL UPDATED REPORT  
OF VIET NAM TO THE UNITED NATIONS  
FRAMEWORK CONVENTION  
ON CLIMATE CHANGE

2018

NATIONAL ADAPTATION PLAN FOR  
CLIMATE CHANGE IMPACTS IN SRI LANKA  
2016 - 2025

National Environment Commission  
Royal Government of Bhutan

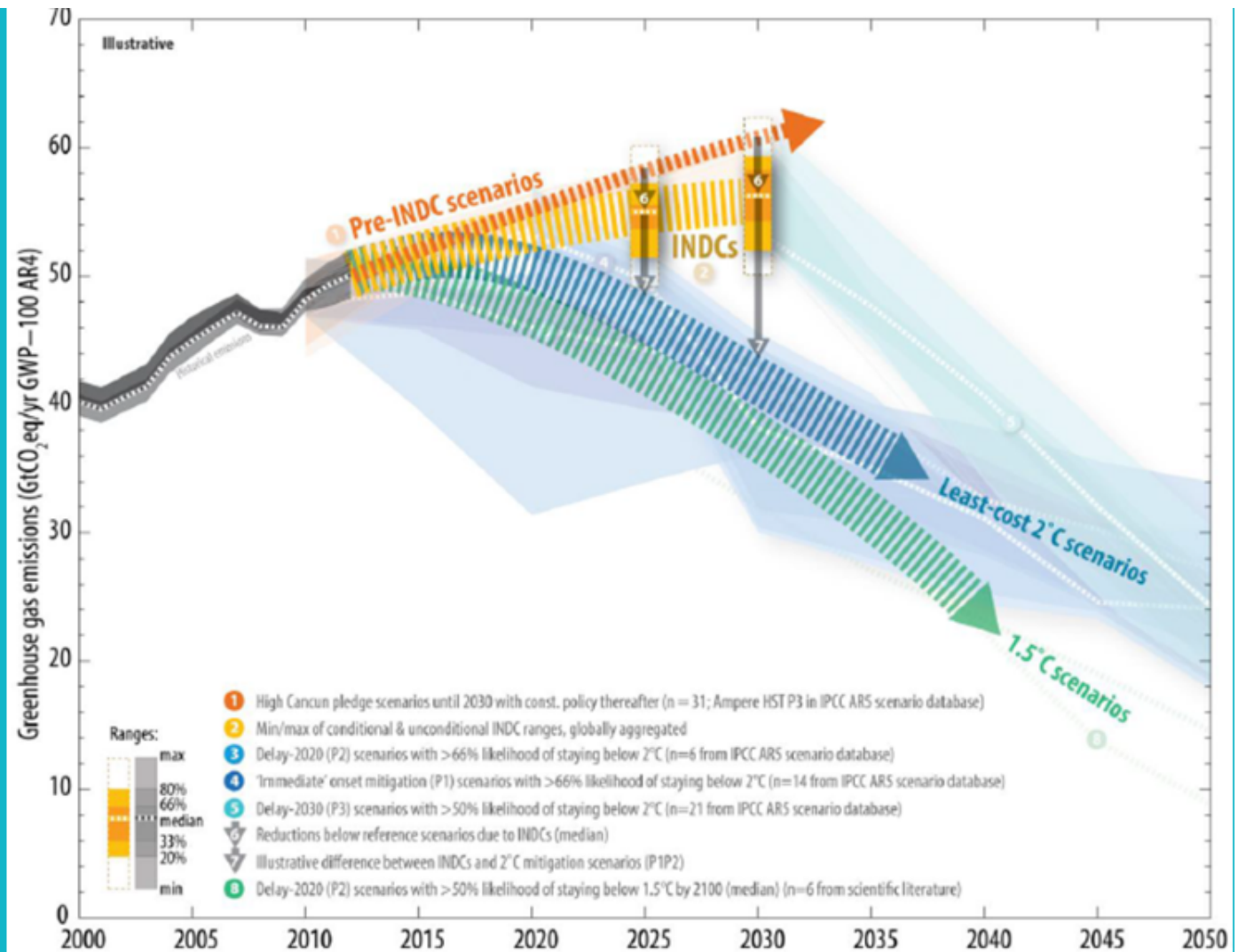


# All Parties under Paris Agreement - 174\*

- **INDC (Intended Nationally Determined Contributions) -** Parties communicated them before COP 21 (Paris)
- **NDCs (Nationally Determined Contributions) -** Parties to communicate 1st NDC at the time of PA ratification
  - 150 - Automatic conversion of INDC to NDC
  - 18 - Revisions to INDCs or NDCs submitted
  - 6 - Parties currently revising NDCs
- **NDC -** post-2020 climate actions reflecting country ambition for reducing emissions by considering domestic circumstances and capabilities



# Synthesis report on the aggregate effect of INDCs







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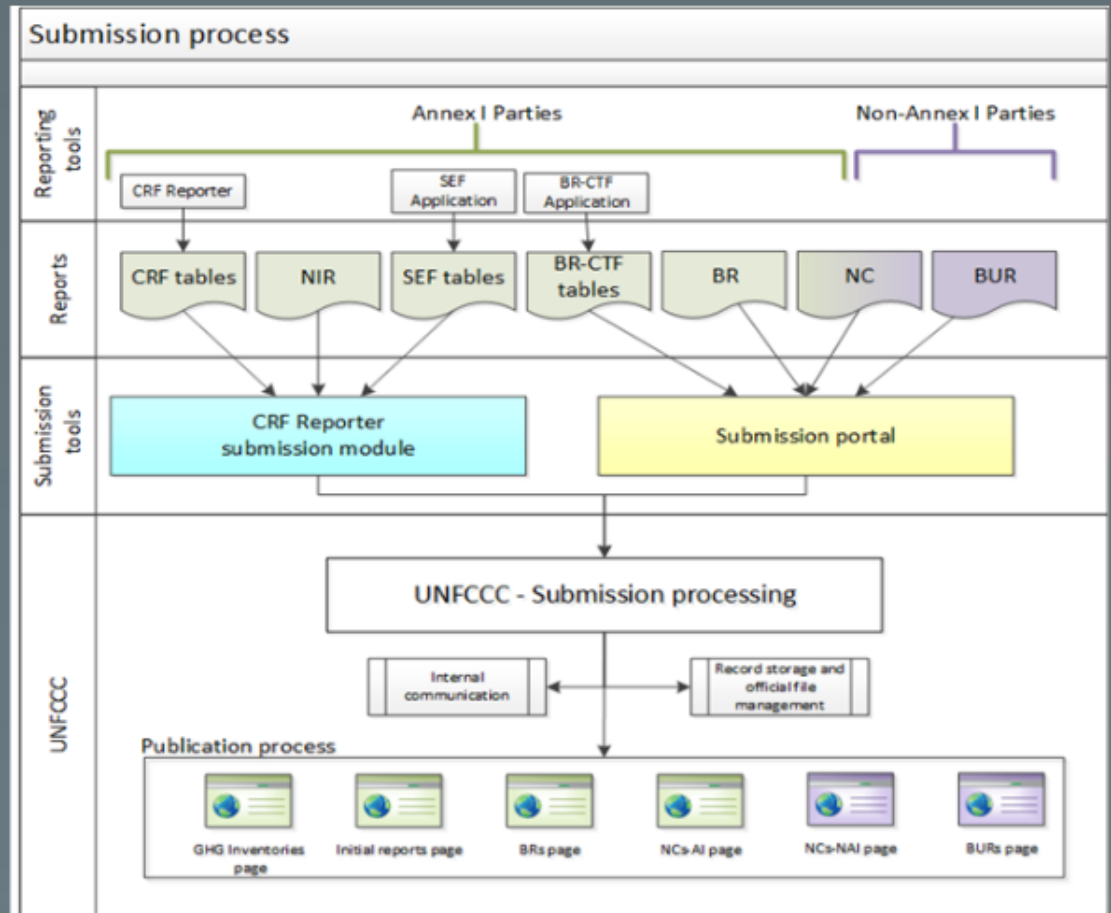
## Our Data

- Data collection
- Data analysis
- Data management
- Data dissemination

Data  
Process

# Data process

- **Data collection** - MRV, mandates
- **Data analysis** - status reports; assessment reports; aggregate GHG info; compilation and accounting reports; etc.
- **Data management** - processing by internal tools:
  - portal & Data Warehouse
  - review process
- **Data dissemination** - BR DI; GHG DI; webpages; cooperation agreements with FAO, IEA, WRI





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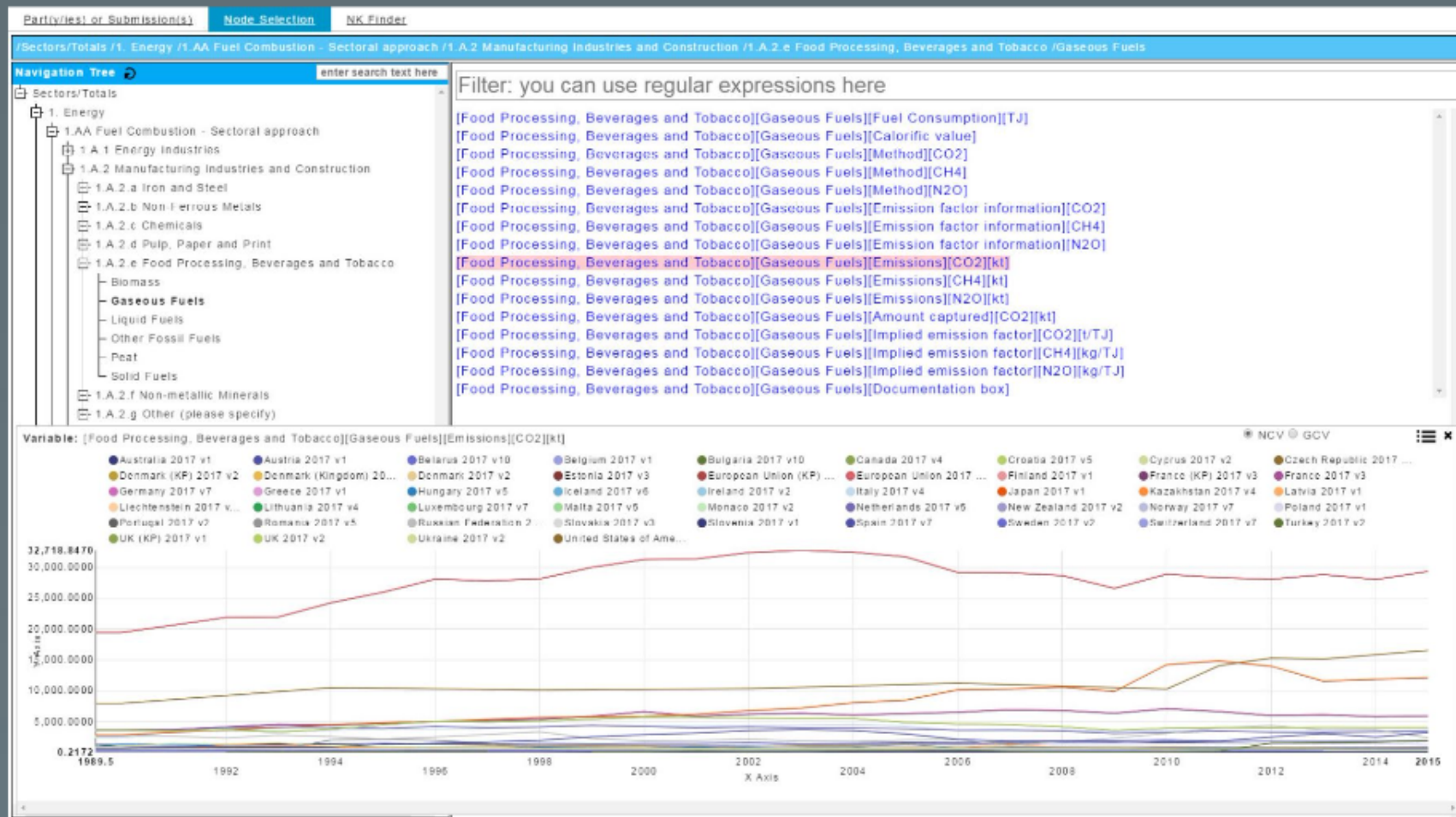


## Our Tools

- Internal vs external
- User friendly
- Comprehensive
- Accurate
- Simple



# GHG Emissions Locator



# GHG Emissions Comparison Tool

UNFCCC Review Comparison Tool

Party: Iceland | Submissions: ISL 2017 v5 → ISL 2017 v6 | Inventory years: All years | Difference: All values

EXPORT TIME SERIES

- ▼ Sectors/Totals
  - > 1. Energy
  - > 2. Industrial Processes and Product Use
  - ▼ 3. Agriculture
    - ▼ 3.1 Livestock
      - ▼ 3.A Enteric Fermentation
        - > 3.A.1 Cattle
        - > 3.A.2 Sheep
      - ▼ 3.B Manure Management
        - ▼ 3.B.1 CH4 Emissions
          - > 3.B.1.2 Sheep
        - > 3.B.2 N2O and NMVOC Emissions

Filter

[Enteric Fermentation][Cattle][Implied emission factor][CH4][kg/head/year]

[Enteric Fermentation][Cattle][Emissions][CH4][kt]

With difference ▼	Base year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
ISL 2017 v5	3.91	3.91	3.98	4.13	4.05	4.01	4.03	4.12	3.92	3.97	3.94	3.84	3.79	3.69	3.63	3.57	3.62
ISL 2017 v6	4.24	4.24	4.33	4.47	4.39	4.34	4.37	4.47	4.24	4.30	4.26	4.17	4.11	4.00	3.92	3.87	3.93
Second - first	0.33	0.33	0.35	0.34	0.34	0.33	0.34	0.35	0.32	0.33	0.32	0.33	0.32	0.31	0.29	0.30	0.31
Relative to first	8.44%	8.44%	8.79%	8.23%	8.40%	8.23%	8.44%	8.50%	8.16%	8.31%	8.12%	8.59%	8.44%	8.40%	7.99%	8.40%	8.56%

# GHG Inventory Data Interface



**United Nations**  
Framework Convention on  
Climate Change

## Process

### GHG Data - UNFCCC

Time series - Annex I

Detailed data by Party

Comparison by Category

Comparison by Gas

GHG profiles

Annex I

Non-Annex I

Global map - Annex I

## Greenhouse Gas Inventory Data - Comparison by Gas <sup>?</sup>

Please select two different Parties for comparison

Australia

European Union (Convention)

Please select Category

Total GHG emissions without LULUCF

Please select two different years for comparison

Base year

1990

Query results for — Parties: Australia and European Union (Convention) — Years: Base year and 1990 — Category: Total GHG emissions without LULUCF — Unit: kt CO2 equivalent

Export to Excel

Export to CSV

Printer Friendly Version

Gas	Australia			European Union (Convention)			European Union (Convention) to Australia Difference	
	Base year	1990	Difference	Base year	1990	Difference	Base year	1990
CO2	278,352.79	278,352.79	0.00%	4,457,424.17	4,457,424.17	0.00%	1501.36%	1501.36%
CH4	119,920.32	119,920.32	0.00%	728,408.46	728,408.46	0.00%	507.41%	507.41%
N2O	15,327.33	15,327.33	0.00%	384,989.38	384,989.38	0.00%	2411.78%	2411.78%
HFCs	1,424.68	1,424.68	0.00%	29,125.49	29,125.49	0.00%	1944.35%	1944.35%
PFCs	4,607.01	4,607.01	0.00%	25,870.24	25,870.24	0.00%	461.54%	461.54%
Unspecified mix of HFCs and PFCs	NO	NO	—	5,840.68	5,840.68	0.00%	—	—
SF6	211.02	211.02	0.00%	11,002.95	11,002.95	0.00%	5114.21%	5114.21%



# Biennial Report Common Tabular Format

Table 5  
Summary of key variables and assumptions used in the projections analysis<sup>a</sup>

Key underlying assumptions	Unit	Historical <sup>b</sup>								Projected				
		1988	1993	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
GDP growth rate (1)	%	1.30	3.00	3.70	2.30	1.90				1.60	1.93	1.15	1.59	1.59
Population (2)	thousands	5,135.00	5,216.00	5,330.00	5,411.00	5,535.00				5,890.00	5,930.00	6,000.00	6,100.00	6,190.00
Population growth (3)	%	0.10	0.37	0.30	0.24	0.44				0.19	0.15	0.47	0.23	0.30
International oil price (4)	USD / bar	23.73	17.02	28.50	54.52	99.10				45.30	30.34	81.72	92.43	92.43
International coal price (5)	USD / ton	10.25	10.73	8.78	15.30	23.18				14.09	14.46	15.83	16.93	16.93
International gas price (6)	USD / bar	NA	10.82	15.72	42.82	38.03				29.47	34.59	47.86	58.84	58.84
EU ETS Carbon price (7)	EUR(2010)/tCO <sub>2</sub>	NA	NA	NA	22.00	15.00				7.59	5.97	7.17	10.07	10.07

<sup>a</sup> Parties should include key underlying assumptions as appropriate.  
<sup>b</sup> Parties should include historical data used to develop the greenhouse gas projections reported.

Custom Footnote

(1) \* In general the starting point for the GHG projection is the latest historic GHG inventory, with the future development projected on the basis of the projected parameters only - such as projected GDP, projected fuel prices etc. (i.e. not historical parameters). Therefore the historic parameters shown here for 1990-2010 are shown only to follow the recommendations from the review of Denmark's BR2, although this is not in line with the purpose of the table: 'include historical data used to develop the greenhouse gas projections reported'. \*\* The key variables shown here for 2020-2010 are used for the 'with existing resources' (WED) scenario. The results are shown in table 6(a).

(2) \* In general the starting point for the GHG projection is the latest historic GHG inventory, with the future development projected on the basis of the projected parameters only - such as projected GDP, projected fuel prices etc. (i.e. not historical parameters). Therefore the historic parameters shown here for 1990-2010 are shown only to follow the recommendations from the review of Denmark's BR2, although this is not in line with the purpose of the table: 'include historical data used to develop the greenhouse gas projections reported'. \*\* The key variables shown here for 2020-2010 are used for the 'with existing resources' (WED) scenario. The results are shown in table 6(a).

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(4) \* In general the starting point for the GHG projection is the latest historic GHG inventory, with the future development projected on the basis of the projected parameters only - such as projected GDP, projected fuel prices etc. (i.e. not historical parameters). Therefore the historic parameters shown here for 1990-2010 are shown only to follow the recommendations from the review of Denmark's BR2, although this is not in line with the purpose of the table: 'include historical data used to develop the greenhouse gas projections reported'. \*\* The key variables shown here for 2020-2010 are used for the 'with existing resources' (WED) scenario. The results are shown in table 6(a).

# Biennial Report Data Interface

File Edit View Favorites Tools Help



United Nations  
Framework Convention on  
Climate Change

## Biennial Reports Data Interface (BR-DI)

- Home
- GHG inventory data
- Information on reduction target
- Progress towards achieving the target (mitigation measures)
- Reporting on progress
- GHG projections - assumptions
- GHG projections
- Financial contributions
- Financial contributions - summary
- Capacity building
- Technology support

### Home

Decision 19/CP.18 adopted the biennial report common tabular format (BR CTF) for the "UNFCCC biennial reporting guidelines for developed country Parties". The BR CTF, as contained in the annex to decision 19/CP.18, consists of 27 tables designed to facilitate the provision of information by developed country Parties on:

- Greenhouse gas (GHG) emission trends;
- Description of quantified economy-wide emission reduction target;
- Progress in achievement of this target;
- GHG projections; and
- Provision of financial, technological and capacity building support.

To facilitate flexible search queries of the BR CTF data submitted by developed country Parties, the secretariat has launched the Biennial Reports Data Interface (BR-DI) application. The BR-DI allows the BR CTF data to be searched via user-defined queries within any of the ten categories. Within each of these ten categories, multiple search options are available that allow users to refine their queries by various criteria. In an effort to streamline the functionalities of applications within the secretariat, users searching for GHG inventory data and GHG projections are automatically redirected to the "flexible GHG data queries" page.

Note: The data presented in the BR-DI has been extracted from the BR CTF tables submitted by developed country Parties, and every effort has been made to ensure the accuracy and consistency of the information. Users may wish to read the full Biennial Reports and the associated BR CTF tables for more detailed and comprehensive Party information at: [http://unfccc.int/national\\_reports/biennial\\_reports\\_and\\_unsubmitted\\_biennial\\_reports/items/7500.php](http://unfccc.int/national_reports/biennial_reports_and_unsubmitted_biennial_reports/items/7500.php)

# NDC Registry



NDC Registry  
(interim)

Login

HOME ALL NDCs NDC Information - FAQ

169 Parties have submitted their first NDCs.

ALL A B C D E F G H I J K L M N O P Q R S T U V W X Y Z



AFGHANISTAN FIRST NDC

COUNTRY PAGE



ALBANIA FIRST NDC

COUNTRY PAGE



ALGERIA FIRST NDC

COUNTRY PAGE



ANDORRA FIRST NDC

COUNTRY PAGE



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# Negotiations



**Paris Agreement Work Programme** - rules and modalities under the new climate regime

Key elements:

- NDCs
- Global stocktake
- Transparency framework



**COP 24** (Nov. 2018) - Katowice, Poland

**Talanoa Dialogue** - platform for Parties and non state actors

Conclusions

# Conclusions

- Parties submit a **vast amount of data** about all aspects of national activities - **publicly available**
- Data needed from **national statistical offices** is complex - expertise, resources and analytical efforts
- Understand the link between **national statistics and climate-change data**
- Enhance the cooperation between **national statistical offices** and the **national authorities** responsible for reporting climate change data
- Expect an **increase of data reporting/needs** under the Paris Agreement - transparency framework
- Difficult year ahead - negotiations under **Paris Agreement Work Programme**



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# More information

## **UN Climate Change Secretariat**

<http://cop23.unfccc.int/>

<http://unfccc.int/2860.php>

## **NDC Registry**

<http://www4.unfccc.int/ndcregistry/Pages/Home.aspx>

## **GHG Data Interface**

[http://di.unfccc.int/time\\_series](http://di.unfccc.int/time_series)

[http://di.unfccc.int/detailed\\_data\\_by\\_party](http://di.unfccc.int/detailed_data_by_party)

## **Talanoa Dialogue**

<https://talanoadialogue.com/>



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