#### United Nations Framework Convention on Climate Change

Agenda item 2.2.
Paragraph 4 of the annotated agenda

# Carbon market and policy developments

**CDM EB 97** 

Bonn, Germany, 30 October to 3 November 2017



# **Procedural background**

- Through its management plan the Board has requested regular updates regarding developments in carbon markets and related policy fields
- In EB92, the Board requested the secretariat to include information on the potential use of CERs in carbon markets, carbon pricing initiatives, and NDCs in future updates.
- In EB92, the Board also requested the secretariat to monitor the development of CORSIA and support the process, upon demand by ICAO.



# **Purpose**

 To provide regular updates on key developments affecting the operating environment of the CDM, so as to support the Board's strategic decision making.





# **Kyoto Protocol – 2nd Commitment Period**

- As of 21 September: 83 Parties have deposited their instrument of acceptance – an increase of 5 since the last update
  - 155 are needed for the Doha Amendment to enter into force
- As of 21 October: 401,103,691 CERs have been issued for the 2<sup>nd</sup> Commitment Period – <u>a 14% increase since the last update</u>. This represents:
  - c.50% of the <u>expected issuance</u> from <u>issuing</u> projects for the CP
  - c.13% of the <u>potential issuance</u> from <u>issuing</u> projects
  - c. 6% of the <u>potential issuance</u> from <u>registered</u> projects



## **Use of CDM in NDCs**

### NDCs referring to use of CDM:



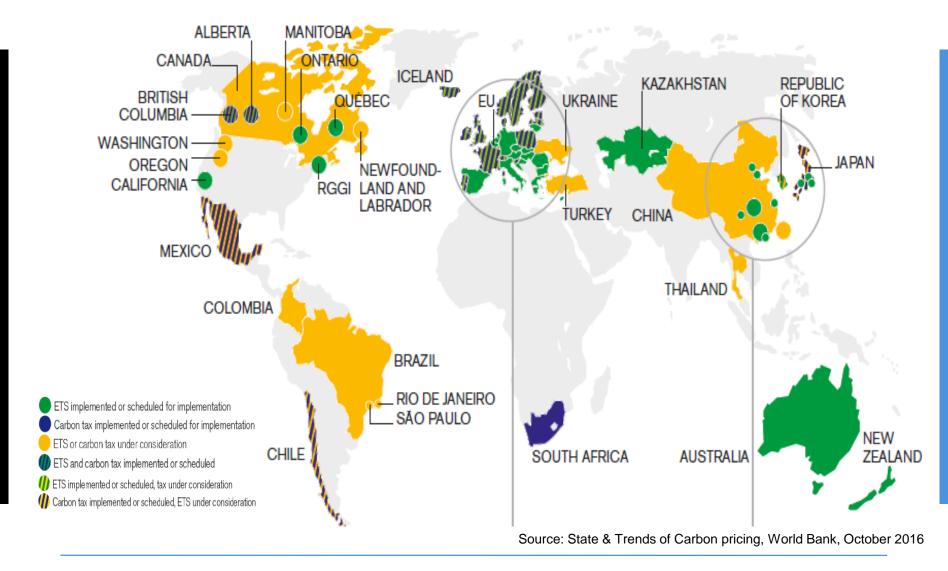
30 NDCs refer specifically to the CDM as a means for achieving the NDC, including:

Angola	Chad	Liberia	Senegal		
Antigua & Barbuda	Cote d'Ivoire	Niger	Sierra Leone		
Barbados	Fiji	Norway	South Sudan		
Belize	Gambia	Pakistan	Switzerland		
Bhutan	Guinea	Moldova	Togo		
Burkina Faso	Haiti	Rwanda	Uganda		
Cape Verde	Lebanon	St. Vincent & Grenadines			
Central African Republic	Lesotho	Sao Tome & Principe			

 The vast majority of the above NDCs mentions the CDM within the context of helping to support the financing of implementation



# **Snapshot of carbon pricing globally**





### **Korean ETS**

#### K-ETS:



- 1st Phase (2015-2017) Annual caps 573.5 Mt, 526.2 Mt and 550.9 MtCO<sub>2</sub>e, 10% offsets only domestic allowed
- 2<sup>nd</sup> Phase (2018-2020) Annual caps to be announced, currently 10% offsets only domestic – proposal to allow half international
- 3<sup>rd</sup> Phase (2021-2025) Annual caps to be announced, 10% offsets with half allowed to be international
- NDC anticipates up to 1/3 of national reductions to be sourced internationally

(mtCO <sub>2</sub> e)	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Max Potential	57.3	56.2	55.1	54.0	52.8	51.7	50.6	49.5	48.3	47.2	46.0
National	57.3	56.2	55.1	54.0 (27.0)	52.8 (26.4)	51.7 (25.6)	25.3	24.7	24.2	23.6	23.0
International	0	0	0	0 (27.0)	0 (26.4)	0 (25.6)	25.3	24.7	24.2	23.6	23.0



## **Chinese National ETS**



- Launch of the National ETS that will replace the existing 8 subnational ETSs delayed until December 2017
- Sectors to be covered include: power generation, petrochemicals, chemicals, steel, paper, building materials, metals, aviation.
- Will be the largest carbon market with eventual coverage of approx.
   4,500 5,000 MtCO<sub>2</sub>e
- Latest indication is that existing units from the 8 sub-national ETSs will not be eligible
- Continuing uncertainty on whether CCERs will be used within the National ETS



# **European Union ETS**



#### **EU-ETS International Units**:

- EU ETS operators have exchanged approx. 422.39 million CERs and ERUs for EUAs since the start of Phase 3
- Overall EU ETS operators have used approx. 1,481.4 million of the approx. 1,600 million unit quota leaving only approximately 118.6 million demand for 2017-2020 (approx. 8 million per annum)
- Post-2020 EU-ETS (Phase 4: 2021-2030) still envisions zero international unit use

#### **EU-ETS Reform:**

- EU institutions (Parliament and Council) are deliberating changes to the ETS for the period 2021-2030 based on a Commission proposal
- It is not expected at present that the revised directive will have a direct impact on CER demand



## Carbon Tax with Offsets - South Africa

### South Africa Carbon Tax:

- A tax of ZAR 120 per tonne (eqv. to €8/t) of liable emissions will be imposed on all entities, companies and installations that emit >100,000 t/yr.
- Able to use between 5%-10% eligible domestic offsets to reduce tax liability as well as tax free thresholds (from 60% up to 80% depending on sector)
- Eligible offsets must be from South African hosted projects and may include CDM projects and possibly also VCS and Gold Standard projects
- ZA National Treasury estimates offset demand at 17.5 MtCO<sub>2</sub>e/year, registered PAs and PoAs could supply approx. 11 million CERs/year
- Implementation delayed until 2018 at the earliest



## Carbon Tax with Offsets - Colombia

#### Colombia Carbon Tax:

- Introduced a tax on fuel producers and importers, commencing 1
  January 2017, on the carbon content on fossil fuels equivalent to
  USD 5 per tCO2e However, coal is excluded
- On 1 June, passed law allowing fuel producers and importers to offset 100% of tax liability on a tonne-for-tonne basis
- Eligible offsets cover a broad criteria that includes CDM and non-CDM
- Offsets will be cancelled and re-issued through Colombia's National Registry of Emissions Reductions
- Oil and gas emissions of approx. 52 MtCO<sub>2</sub>e in 2012
- Current registered Colombian PAs and PoAs could supply approx. 7 million CERs/yr



## **Carbon Tax with Offsets – Mexico**

#### Mexico Carbon Tax:



- Tax on fossil fuels (approx. 5 USD per tonne) to raise 1 billion
   USD per year
- Current registered Mexican PAs and PoAs could supply approx. 15 million CERs/yr
- However, implementing regulation for CER use has not been issued with no news on when it is expected

### Other Mexican Carbon Market Policy:

- Expected to launch pilot ETS in 2017 and initiate ETS in 2018
- Mexico, Ontario and Quebec issued a joint declaration to promote the expansion of carbon market in North America



### **Result-based Finance**



#### World Bank Pilot Auction Fund:

- 1st Auction: Methane from CDM only = 8.7 million @ \$2.40 each over 2016-2020
- 2<sup>nd</sup> Auction: Methane from CDM, VCS or GS = 5.7 million @ \$3.50 each over 2017-2020
- 3<sup>rd</sup> Auction: Nitric Acid from CDM or VCS = 6.2 million @ \$2.10 each over 2017-2020
- Total of 20.6 million units over 2016-2020 for \$53.85 million



### **Result-based Finance**



#### Carbon Initiative for Development (CiDev):

- Kenya: SimGas Biodigesters = 500,000 CERs
- Madagascar: Ethanol Cookstoves = 1,100,000 CERs
- Ethiopia: Biogas = 1,100,000 CERs
- Ethiopia: Off-Grid Renewable Energy = 800,000 CERs
- Senegal: Rural Electrification = All CERs to end 2024
- Mali: Rural Electrification = 400,000 CERs
- West Africa Biodigesters = 540,000 CERs
- Uganda: Rural Electrification = 990,000 CERs

Total of 5,430,000 CERs



# **Voluntary Carbon Markets**

#### State of the voluntary carbon market:

- 2016 = 63.4 million tCO2e transacted (5.1 million CERs)
- 2015 = 84 million tCO2e transacted (1.1 million CERs)
- 2014 = 77 million tCO2e transacted (0.8 million CERs)

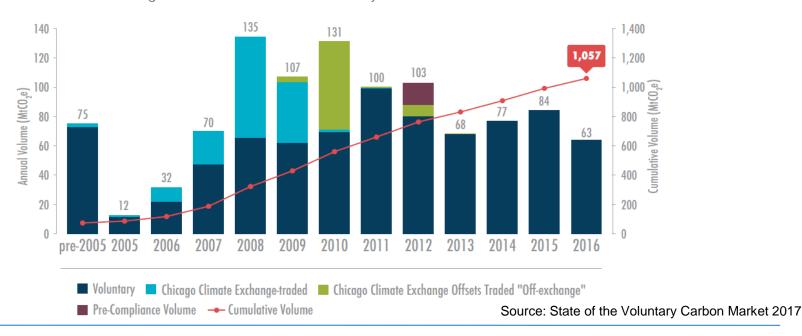


Figure 2: Historical Market-Wide Voluntary Offset Transaction Volumes

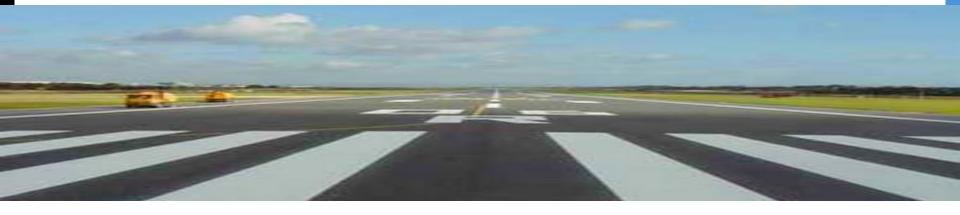


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### **CORSIA**



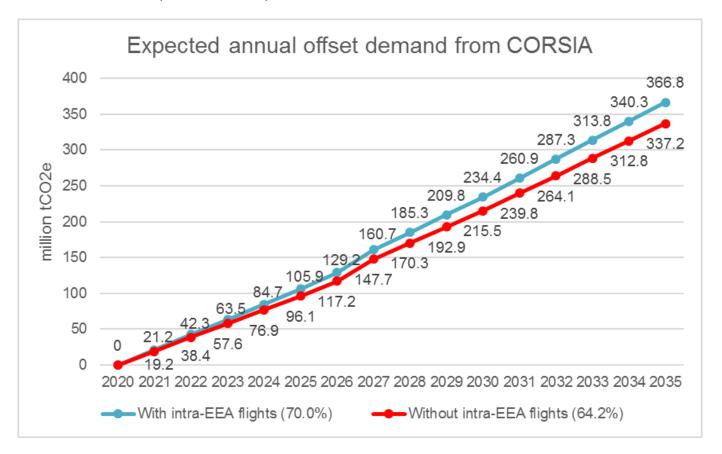
- Objective: Carbon neutral growth post-2020 (CNG2020)
- 2 more member states joined CORSIA since EB95 (Jul 2017)
- 72 out of 191 member states, representing 87.7% of international aviation activity and 67% of emissions from international aviation, intend to voluntarily participate in the CORSIA from 2021 to 2026
- 3 Phases: Pilot phase (2021-2023); 1<sup>st</sup> phase (2024-2026); 2<sup>nd</sup> phase (2027-2035)





### **CORSIA**

 The aggregated expected offset demand 2021-2035 from CORSIA is estimated at 2,574 or 2,806 million tCO2e





## **CORSIA**

- Timeline:
  - Jun 2018: ICAO Council to adopt the SARPs (i.e. CORSIA Rulebook)
  - Jan 2019: SARPs enter into force
  - Jan 2021: CORSIA obligations start
- Eligible units for CORSIA must meet Emission Unit Criteria (EUC) of SARPs to be competed in Jun 2018
- ICAO's 39<sup>th</sup> Assembly resolution agreed on eligibility of UNFCCC mechanism units (i.e. CERs and Article 6.4 units) for CORSIA provided that they meet EUC of SARPs on doublecounting, eligible vintage and timeframe.



# IMO Strategy on emissions reductions



- 70<sup>th</sup> Marine Environmental Protection Committee (MEPC) adopted the "Road map for developing a comprehensive IMO strategy on reduction of GHG emissions from ships", which plans adoption of:
  - Initial strategy including a list of candidate short-, mid- and long-term further measures in 72<sup>nd</sup> MEPC (Apr 2018);
  - Revised strategy including short-, mid- and longterm further measure(s) in 80<sup>th</sup> MEPC (Spring 2023)
- 71<sup>st</sup> MEPC noted the draft structure of the initial strategy including sections of:
  - Levels of ambitions/Guiding principles
  - List of candidate short-, mid- and long-term further measures and their impacts on States



### Recommendations

#### The Board may wish to:

- ✓ Take note of the changing context within which CDM operates.
- Continue to provide support as requested by Parties, ICAO and WB to facilitate the use of CERs in their carbon pricing initiatives
- ✓ Identify any additional "demand-side" activities which the Board considers the secretariat could undertake to promote the use of the CDM to deliver its mitigation and sustainable development potential



#### United Nations Framework Convention on Climate Change

# Thank You

