

Agenda item 2.2.
Paragraph 7 of the annotated agenda

Carbon market and policy developments

CDM EB 95

Bonn, Germany, 11 - 13 July 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 - 1st Commitment Period

- Total of 1,481,526,204 CERs and 871,893,629 ERUs were issued for the 1st Commitment Period to date (Grand Total 2,353,419,833)

Party	Total GHG emissions in CP1*	Assigned amount in CP1	Total quantity of KP units retired (by type of unit)					
			AAUs	RMUs	ERUs	CERs	tCERs	ICERs
Australia	2,711,153,476	2,957,579,143	2,711,153,478	0	0	0	0	0
European Union (26)	23,506,022,164	26,711,743,430	21,809,460,149	390,402,324	508,003,532	817,796,021	1,615,811	0
Iceland	23,356,071	18,523,847	18,420,881	1,542,761	42,128	93,161	0	0
Japan	6,392,411,719	5,928,257,666	5,984,298,257	243,567,378	22,402,979	141,799,902	343,203	0
Liechtenstein	1,175,109	1,055,623	953,020	165	5,156	216,768	0	0
Monaco	471,255	495,221	471,255	0	0	0	0	0
New Zealand	372,797,621	309,564,733	179,055,090	80,598,152	97,027,042	16,117,338	0	0
Norway	266,824,503	250,576,797	253,134,092	1,824,462	2,605,670	9,260,279	0	0
Russian Federation	11,187,543,419	16,617,095,319	11,187,543,419	0	0	0	0	0
Switzerland	261,721,729	242,838,402	236,857,347	8,267,540	558,645	16,038,197	0	0
Ukraine	1,999,434,250	4,604,184,663	0	0	0	0	0	0
TOTAL	46,722,911,316	57,641,914,844	42,381,346,988	726,202,782	630,645,152	1,001,321,666	1,959,014	0



Kyoto Protocol – 2nd Commitment Period

- As of 30 June 2017: 78 Parties have deposited their instrument of acceptance (155 are needed for the Doha Amendment to enter into force)

Party	Total KP units accepted for carry over			Total KP units NOT requested for carry over		
	AAUs	CERs	ERUs	AAUs	CERs	ERUs
Australia	127,650,775	21,768,290	0	0	49,038	0
European Union (26)#	4,008,628,882	154,821,868	171,036,887	470,613,525	27,761,377	19,188,097
Iceland	0	0	0	0	0	0
Japan	170,995,012	2,561,806	29,600	131,268	66,674	0
Liechtenstein	42,984	0	0	0	0	0
Monaco	23,966	0	0	0	0	0
New Zealand	123,749,012	0	0	5,495,234	717,256	13,717,518
Norway	8,575,385	3,579,869	6,264,420	0	545	538,784
Russian Federation	0	0	0	5,141,806,703	7,220,072	0
Switzerland	5,794,523	1,821,654	0	0	45	0
Ukraine	2,001,107,853	533,410	0	0	0	0
TOTAL	6,446,568,392	185,086,897	177,330,907	5,618,046,730	35,815,007	33,444,399

- As of 31 May 2017: 350,199,285 CERs have been issued for the 2nd Commitment Period



Use of CDM in NDCs



COP21-CMP11
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NDCs referring to use of CDM:

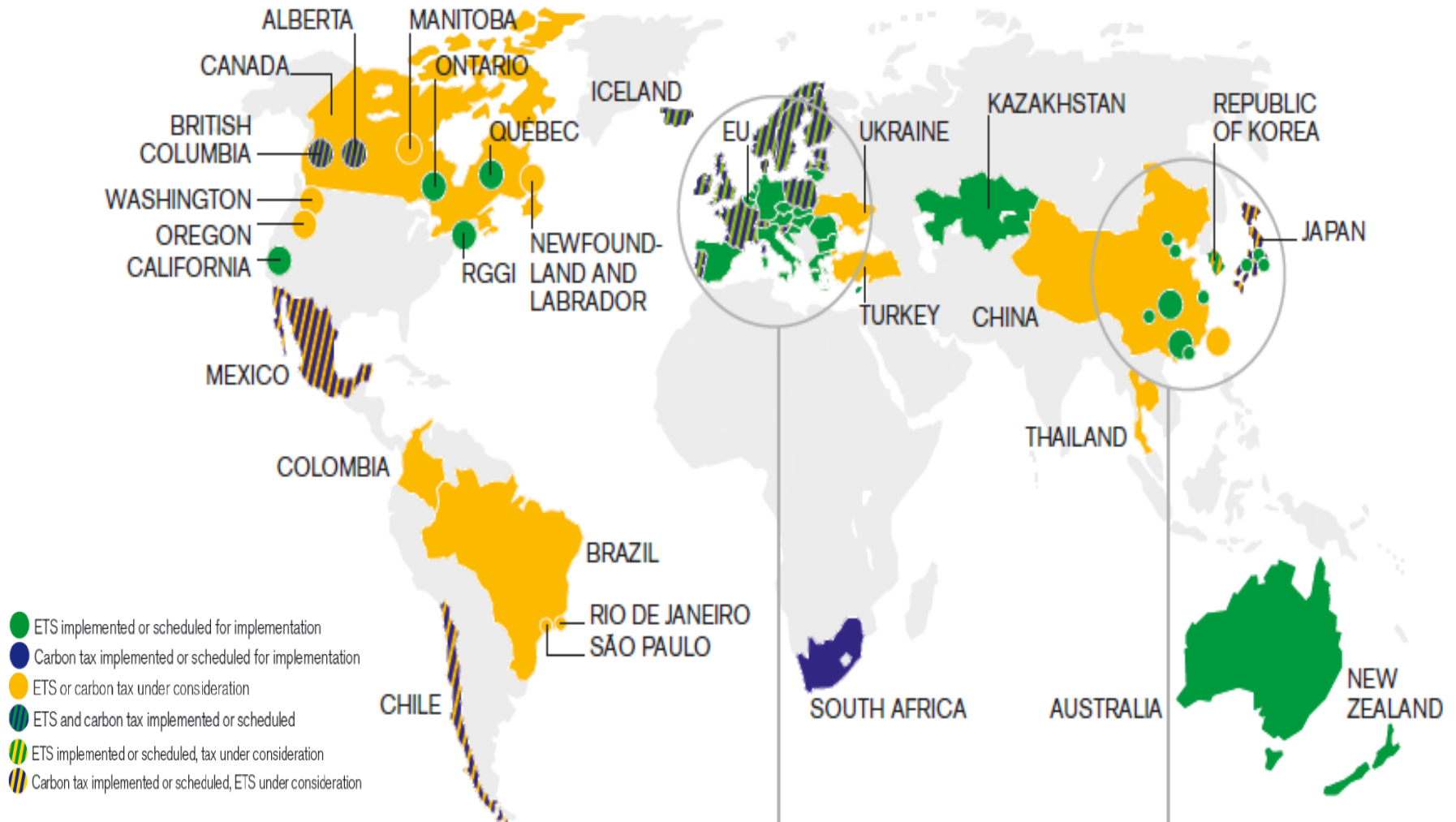
- 30 NDCs refer specifically to the CDM as a means for achieving the NDC, including:

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 finance their NDC implementation



Snapshot of carbon pricing globally



Source: State & Trends of Carbon pricing, World Bank, October 2016



Korean Emission Trading Scheme



K-ETS:

- 1st Phase (2015-2017) – Annual caps 573.5 Mt, 526.2 Mt and 550.9 Mt CO₂e, 10% offsets only domestic allowed
- 2nd Phase (2018-2020) – Annual caps to be announced, currently 10% offsets only domestic – proposal to allow half international
- 3rd 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 ₂ 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



European Union



EU-ETS:

- EU ETS operators have exchanged approx. 12 million CERs and ERUs for EUAs since May 2016 bringing the total number of CERs and ERUs exchanged since the start of Phase 3 to 422.4 million
- Overall EU ETS operators have used approx. 1,481.4 million of the 1,514 million unit quota leaving only 32.6 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 member states:

- BNEF estimates government demand from EU member states at 285 million units (with an additional 60 million for Norway)



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 MtCO₂e/year, registered PAs and PoAs could supply approx. 11 million CERs/year
- Implementation delayed until 2018 at the earliest



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



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
- 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
- Energy sector emissions of approx. 83 MtCO₂e in 2012
- Current registered Colombian PAs and PoAs could supply approx. 7 million CERs/yr





World Bank Pilot Auction Fund:

- 1st Auction: Methane from CDM only = 8.7 million @ \$2.40 each over 2016-2020
- 2nd Auction: Methane from CDM, VCS or GS = 5.7 million @ \$3.50 each over 2017-2020
- 3rd 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



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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

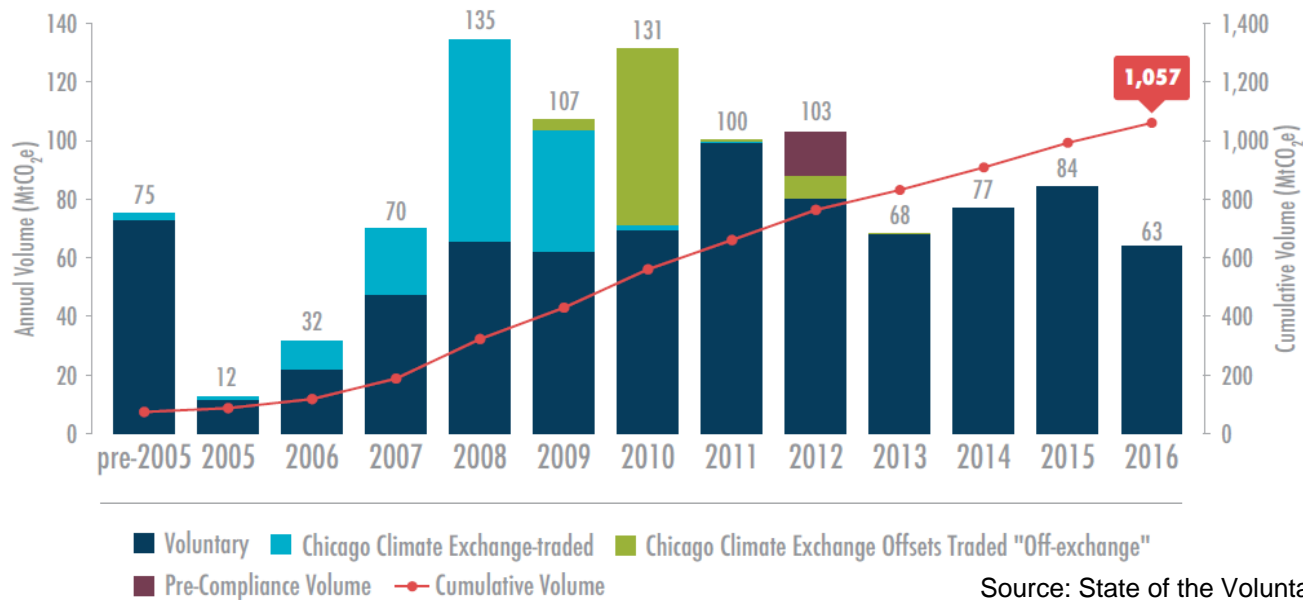


Voluntary Carbon Markets

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



Source: State of the Voluntary Carbon Market 2017



CORSIA

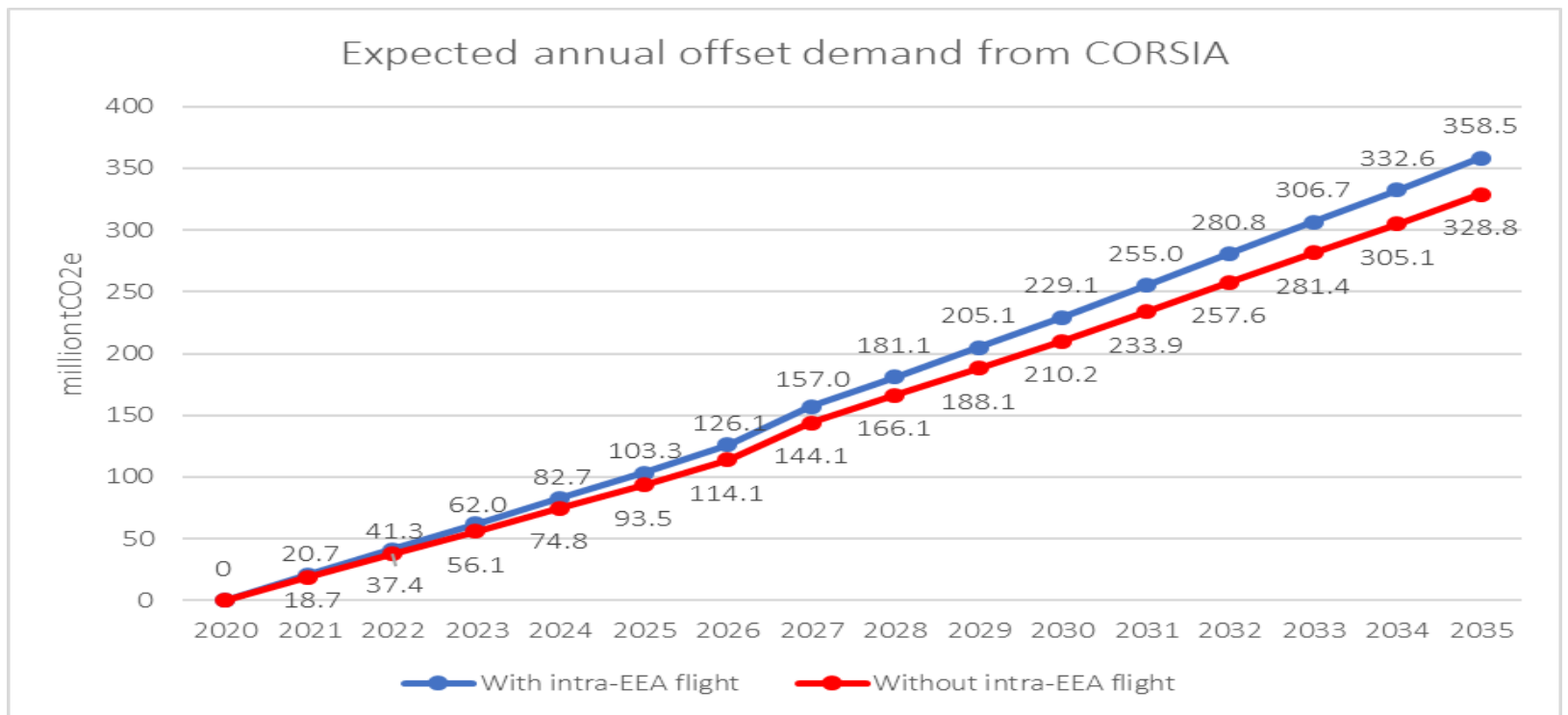


- 4 more member states joined CORSIA since EB92 (Nov 2016)
- 70 states out of 191 member states, representing more than 87.7% of international aviation activity intend to voluntarily participate in the CORSIA from 2021 to 2026



CORSIA

- 3 Phases: Pilot phase (2021-2023); 1st Phases (2024-2026); 2nd Phases (2027-2035)
- The aggregated expected offset demand 2021-2035 from CORSIA is estimated at 2,510 to 2,742 million tCO₂e



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



Thank You

