

Agenda item 2.2
Paragraph 4 of the annotated
agenda

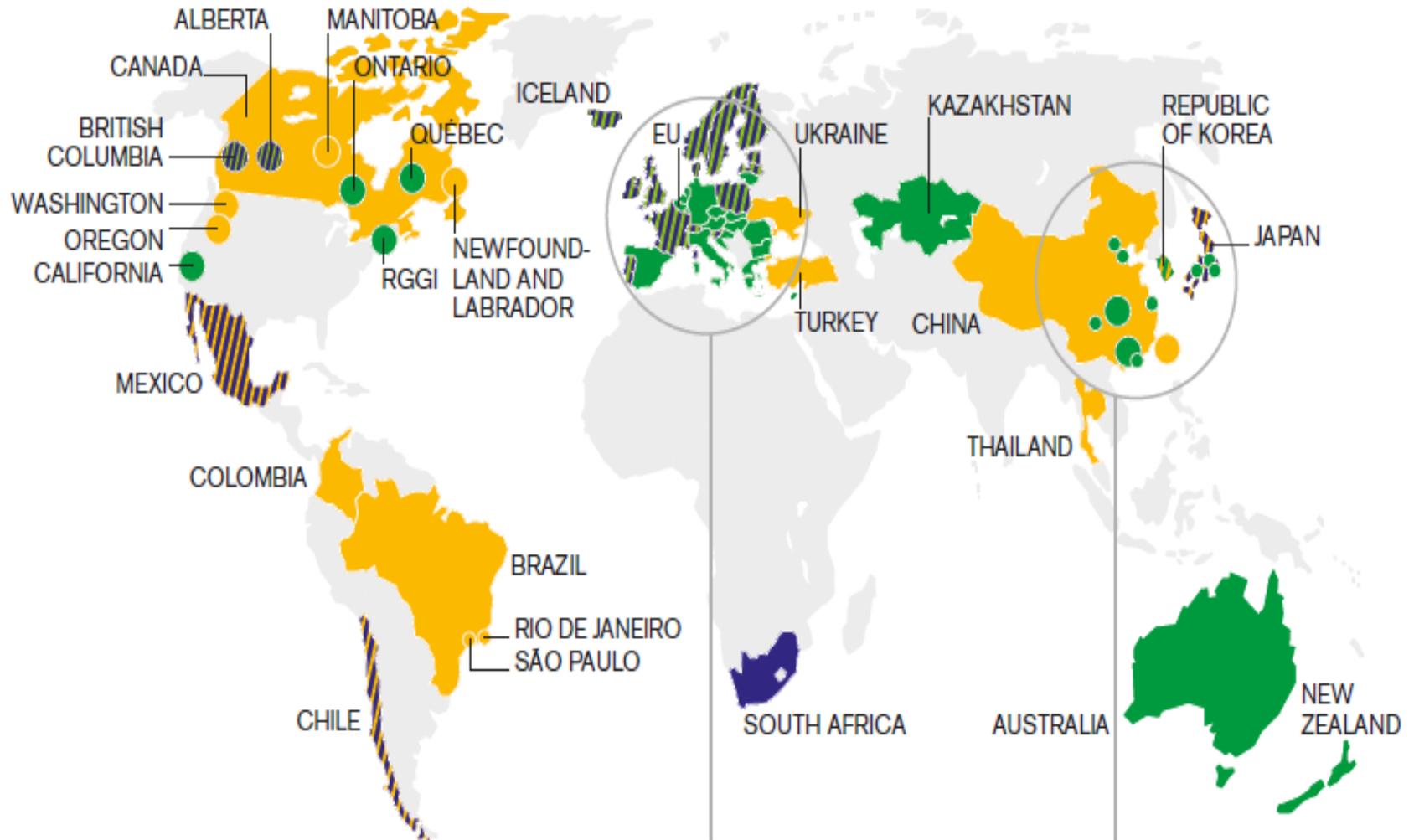
**Market and policy
developments**

CDM EB 92

Marrakech, Morocco, 31 October - 4 November 2016



Snapshot of carbon pricing globally

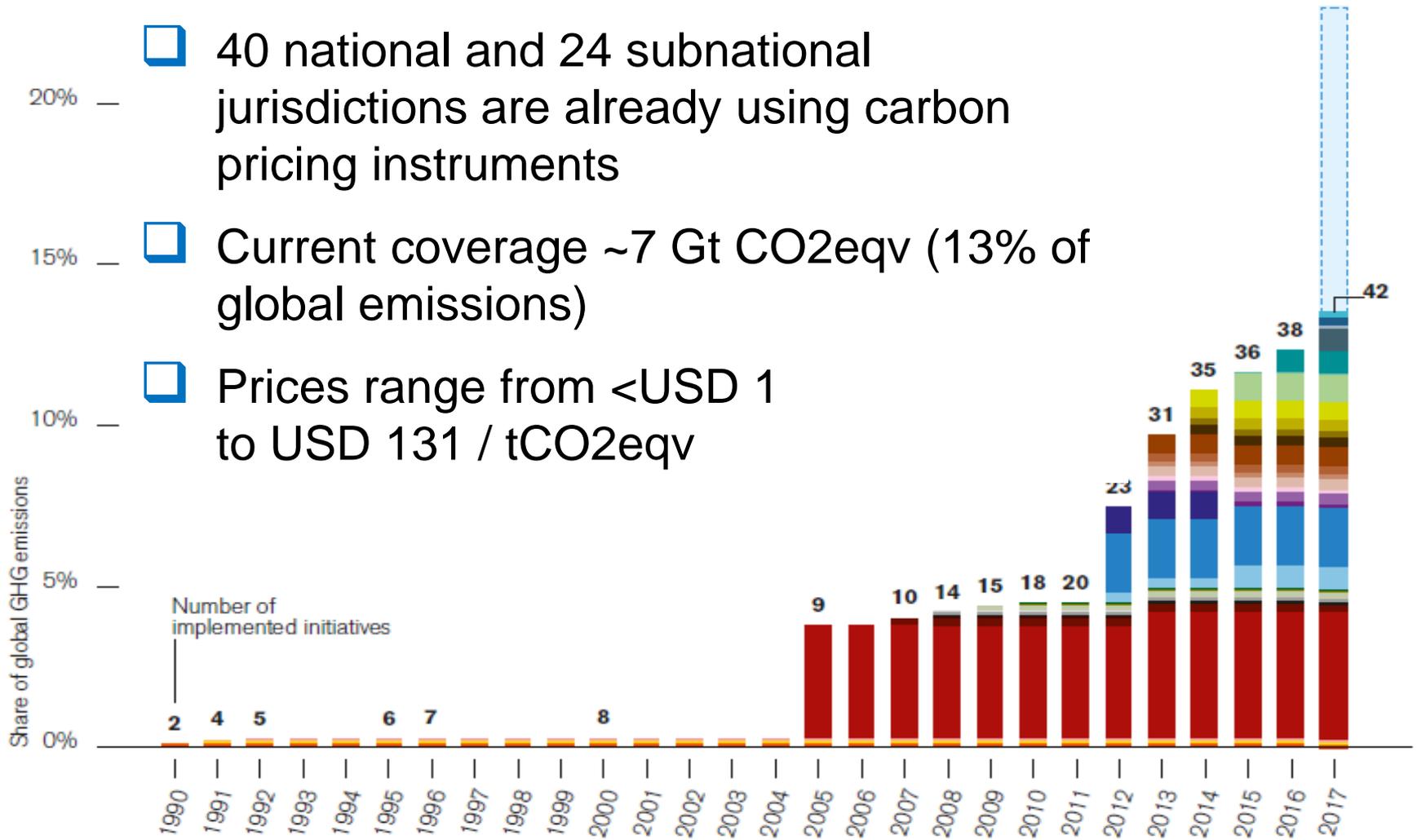


Source: State & Trends of Carbon pricing, World Bank, October 2016



Snapshot of carbon pricing globally

- 40 national and 24 subnational jurisdictions are already using carbon pricing instruments
- Current coverage ~7 Gt CO₂eqv (13% of global emissions)
- Prices range from <USD 1 to USD 131 / tCO₂eqv



Examples of recent developments

- ❑ Mexico piloting market and explore linking w. California, Quebec, Manitoba
- ❑ Ontario preparing launch of ETS
- ❑ ETS launched in S. Korea
- ❑ Carbon tax established in Portugal
- ❑ British Columbia put price on LNG plant emissions on top of existing tax.
- ❑ Australia require large emitters to offset emissions above limit
- ❑ G7 Carbon Market Platform expanded
China preparing shift from 7 ETS pilots to national ETS scheme



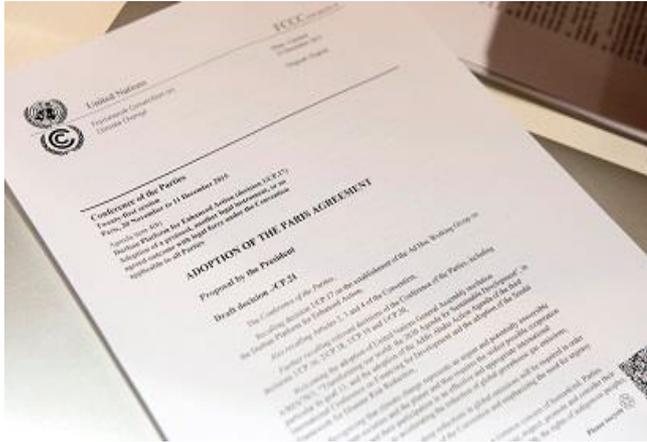
The Paris Agreement

- ❑ Paris Agreement sent a strong positive signal
- ❑ Approximately 100 of 189 submitted NDC indicate use of carbon pricing instruments.
- ❑ Most focus on national level action.
- ❑ Article 6 seen as enabling international cooperation.



COP21 · CMP11
PARIS 2015
UN CLIMATE CHANGE CONFERENCE

Paris Agreement: Article 6



- Cooperative Approaches
- A new sustainable development and mitigation mechanism
- Non-market based approaches

- The Paris Agreement enters into force on 4 November 2016 – less than a year after it was adopted!
- The “rule book” needs to be developed as soon as possible!
- The role of CDM in the Paris Agreement architecture remains unclear

CDM: current market situation



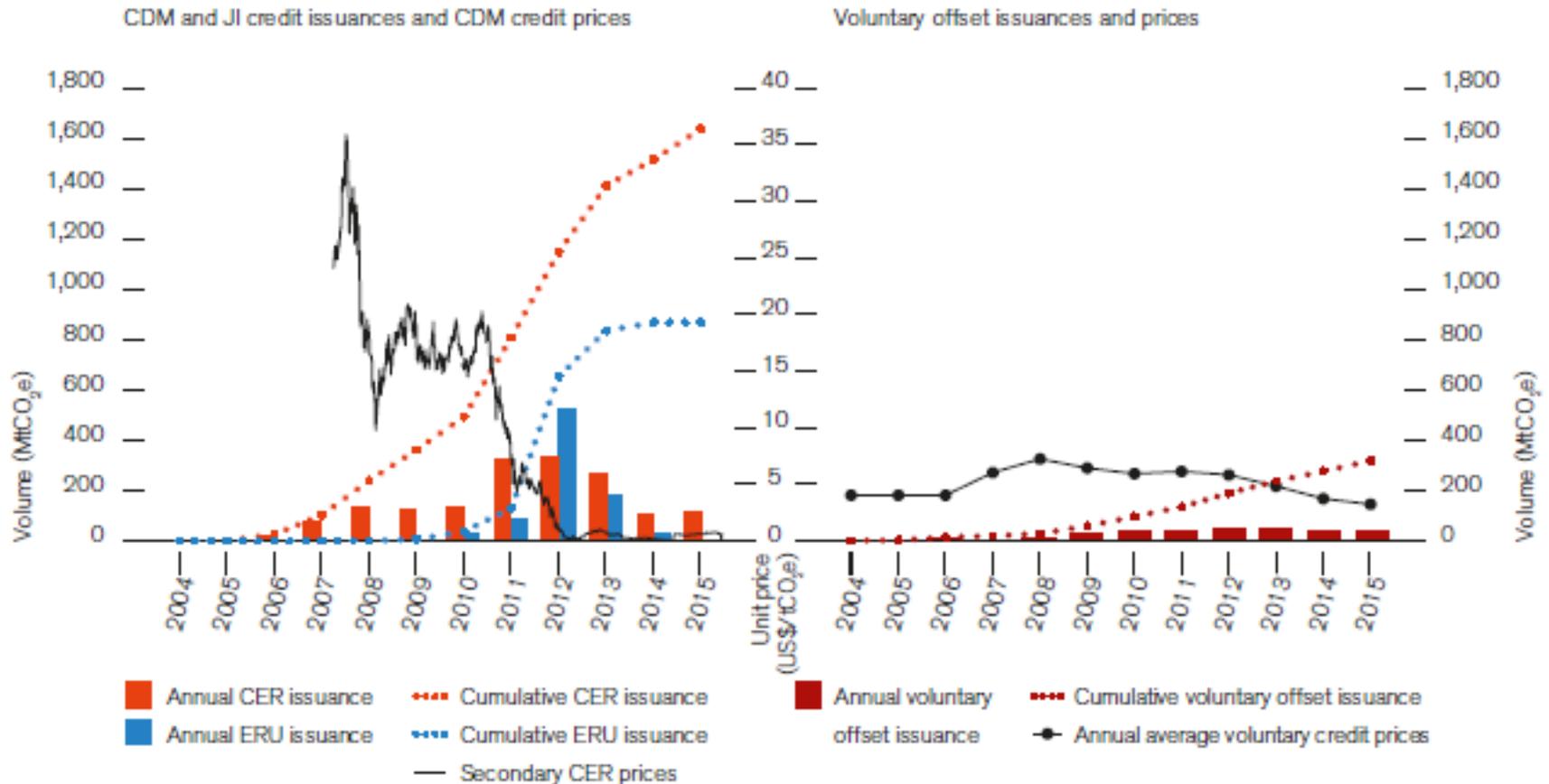
- ❑ UN offsets (CER & ERU) issued to date:
~2.5 billion tCO₂eqv
- ❑ Remaining compliance demand: ~0.1 Gt CO₂eqv
- ❑ “Other demand” estimated in range of a few hundred Mt CO₂eqv from 2016 to 2020

➤ **Kyoto compliance as source of CER demand almost exhausted**

- ❑ CDM in principle able to issue 3.5 Gt CO₂eqv from 2016 to 2020
- ❑ Due to lack of demand and prevailing prices more likely to be in the range 300-600 Mt CO₂eqv.
- ❑ Supply can change rapidly if new demand appear
- ❑ CER price currently around USD 0.4/CER (open) and USD 1-5/CER (VC Platform)



CDM: Voluntary markets



□ Voluntary cancellation of CERs in the CDM registry from Oct 2015 to Sep 2016 amount to 9 million CER, incl. VC of CERs for Korean ETS



Observations



1. Traditional compliance demand under the Kyoto protocol is almost exhausted
2. The Paris Agreement provides strong positive signal on the use of market based approaches
 - Nationally through NDCs
 - Internationally through Article 6
3. The lack of clarity of CDM's recognition in the Paris Agreement world strongly disincentivizes further investments in CDM.

Other significant developments



1. Adoption of the Kigali Amendment to the Montreal Protocol, adopting a plan to phase out production and use of HFC



2. Establishment of the ICAO Carbon Offset and Reduction Scheme for International Aviation (CORSIA) to achieve carbon neutral growth in international aviation from 2020



HFC: Background



- ❖ The Montreal Protocol on Substances that Deplete the Ozone Layer entered into force on 1 January 1989.
- ❖ Highly successful - has led to a 98 per cent decrease in the production and use of ozone-damaging chemicals.
- ❖ The Montreal Protocol aims at phasing out the production and use of two groups of ozone substances: Chlorofluorocarbons (CFCs), and Hydrochlorofluorocarbons (HCFCs).
- ❖ Hydrofluorocarbons (HFCs) is an ozone friendly substitute for HCFC and CFC.
- ❖ The Global Warming Potential of HFC, however, is between ~4000 to 12.000, i.e. HFC is a potent greenhouse gas.
- ❖ HFCs is part of the Greenhouse Gases covered by UNFCCC, but were until recently not covered by the Montreal Protocol
- ❖ On 14 October 2016, the 28th Meeting of the Parties (MOP 28) to the Montreal Protocol adopted the Kigali amendment.



The Kigali Amendment



- ❖ The Kigali amendment includes HFC in the Montreal protocol.
- ❖ The Kigali amendment will reduce global production and use of HFCs between 80 and 85 percent by 2047, estimated to at least some 70 billion tCO₂eqv.
- ❖ The Kigali Amendment, calls for developed countries, including the US and EU, to start to phase down HFCs by 2019 and a group of developing countries such as China, Brazil and most of Africa to follow with a freeze of HFCs consumption levels in 2024, and India, Pakistan, Iran, Saudi Arabia and Kuwait in 2028.
- ❖ Estimated to avoid up to 0.5°C of global warming by the end of the century



Kigali Amendment in a nut shell

	Non-A5 (developed countries)	A5 (developing countries) – Group 1	A5 (developing countries) – Group 2
Baseline – HFC component	2011-2013 Average HFC consumption	2020-2022 Average HFC consumption	2024-2026 Average HFC consumption
Freeze	-	2024	2028
1st step	2019 – 10%	2029 – 10%	2032 – 10%
2nd step	2024 – 45%	2035 – 30%	2037 – 20%
3rd step	2029 – 70%	2040 – 50%	2042 – 30%
4th step	2034 – 80%		
Plateau	2036 – 85%	2045 – 85%	2047 – 85%
Notes	Belarus, Russian Federation, Kazakhstan, Tajikistan, Uzbekistan, 25% HCFC component and 1 st two steps are later: 5% in 2020, 35% in 2025	Article 5 countries not part of Group 2 Most developing countries, including China and Brazil	GCC, India, Iran, Iraq, Pakistan



Impact on CDM

- There are 22 registered CDM projects addressing reduction of HFC (HFC23 & 134a):
- 11 projects are in China, 8 in India and 1 each in Argentina, Mexico and South Korea.
- All these projects have already made issuances.
- China has mandated that all HFC plants would be subjected to regulation to destroy the gas, so no units will be available for sale.
- All Indian projects have 10 year fixed crediting period, with the latest crediting period starting on 03 Feb 2011 → none of the Indian projects will be affected by this amendment.
- Other projects have renewable crediting periods, starting between from 1 Jan 2003 and 20 April 2009.
- AMS-IIIN, and AM1 are the two relevant methodologies



Next steps

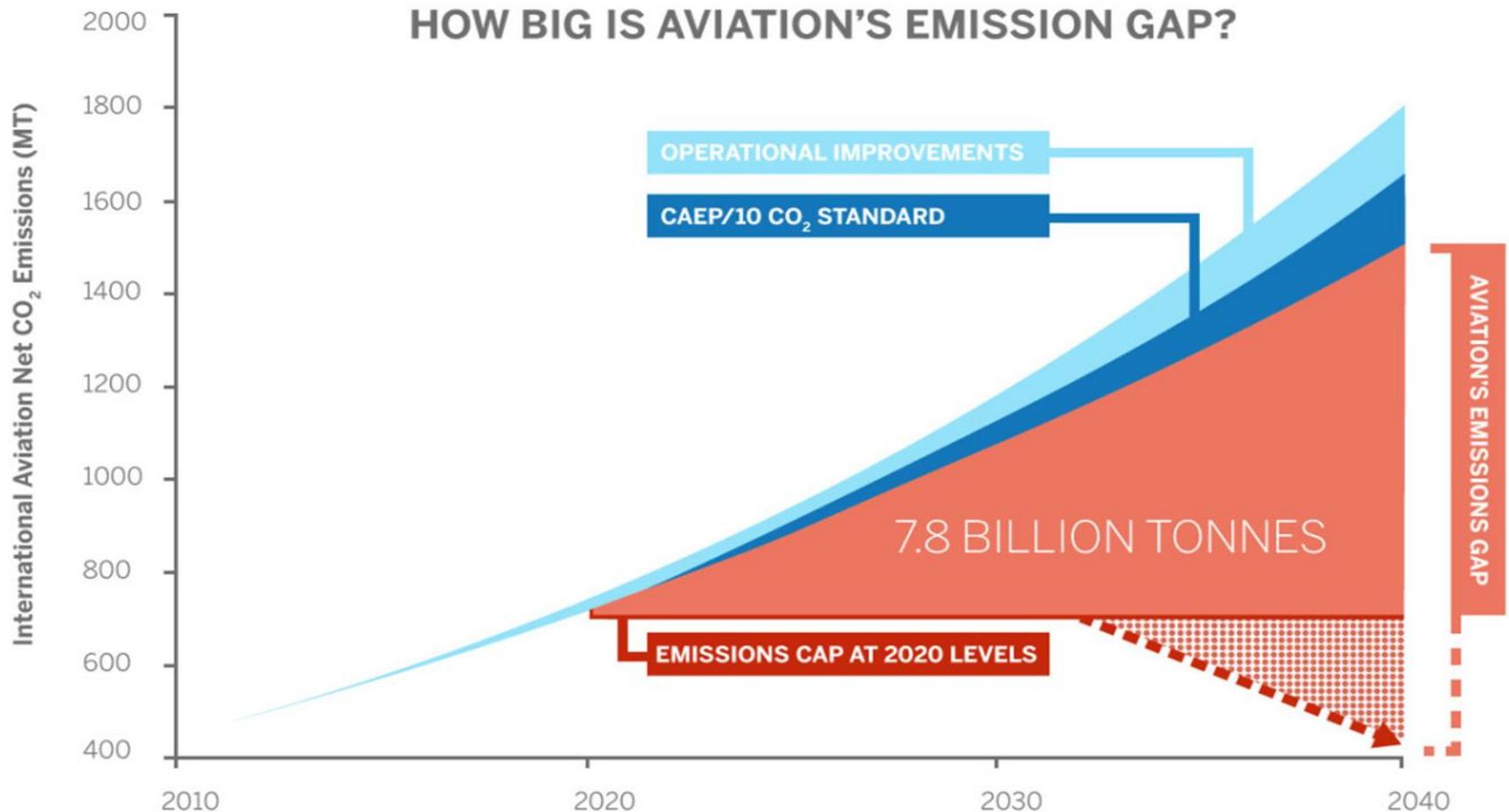
1. The Secretariat will assess any potential impact of the Kigali amendment on HFC projects in CDM.
2. If any issues are identified, the Board will be informed.



Landing the ICAO Agreement on CORSIA



GHG emissions from international aviation



SOURCE: ICAO, "Overview of Environmental Work," Singapore GLADs, 2015."



Decision by ICAO's 39th Assembly

- To achieve carbon neutral growth from 2020: Establish the Carbon Offsetting and Reduction Scheme for International Aviation – **CORSIA**

 - CORSIA is to be **implemented in three phases**:
 1. Pilot phase: 2021-2023 – Voluntary
 2. 1st Phase: 2024-2026 – Voluntary
 3. 2nd phase: 2027- 2035 – Member states with more than 0.5% of global Revenue-Tonne-Kilometer (RTK).

 - ❖ Exceptions SIDS, LDC and Land Locked Developing Countries
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Key points of ICAO's resolution

- **Emission coverage of CORSIA:** As of 12 October 2016, 66 States, representing 86.5% of global RTK (i.e. international aviation activity), intend to voluntarily participate in CORSIA from its pilot phase.



Potential impact on CDM

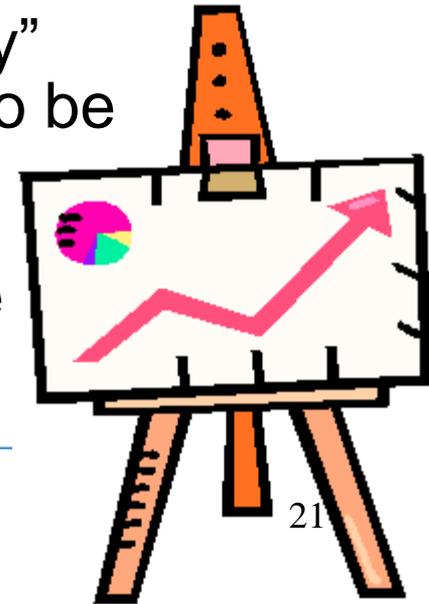
Potential for significant post-2020 demand

- Demand per year by 2025: ~174 million tCO₂eqv
- Demand per year by 2030: ~230 million CO₂eqv
- Total demand 2020-2040: ~7.8 billion CO₂eqv

- Demand for eligible units. May include CERs, Article 6 units, and other units meeting Emission Unit Criteria

- CERs and Article 6 have “privileged eligibility” (but not automatic). Guidelines and criteria to be developed in ICAO by 2018

- The CDM Board can facilitate that CERs are formally recognized as eligible units



Recommendations

The Board may wish to

- ✓ Take note of the changing context within which CDM operates and continue work to encourage and facilitate the use of CDM and CERs outside its traditional role to meet compliance demand within the Kyoto Protocol.
- ✓ Encourage parties to clarify the recognition of CDM in the context of the Paris Agreement.
- ✓ Welcome of the Kigali Amendment to the Montreal Protocol and take note of that the Secretariat is assessing potential implications for HFC projects in CDM.
- ✓ Welcome the ICAO decision on CORSIA and undertake work to support the use of CERs within CORSIA.





Thank You

