The potential impact of transitioning CDM units and activities to the Paris Agreement

Understanding implications of key policy choices on the table in Glasgow

Webinar
21 October 2021

Agenda

		 Carsten Warnecke (NewClimate Institute)
1.	Introductory remarks from the German Federal Ministry for Environment	 Thomas Forth (BMU)
2.	Transitioning elements of the CDM to Paris: Overview and focus on units (CERs)	 Lambert Schneider (Öko-Institut)
3.	Credit supply potential for activity transition and implications for Paris goals	 Harry Fearnehough (NewClimate Institute)
4.	Response and Q&A	 Kazuhisa Koakutsu (MoE, Japan)
5.	Conclusions on further work	 Thomas Forth (BMU)

Transitioning elements of the CDM to Paris

Overview of elements under discussion

What can be transitioned?

1. Regulatory documents
2. Institutional arrangements
3. Projects
4. Certified emission reductions (CERs)

Examples of regulatory documents

Documents	Issues to be addressed
Project / PoA standard Project / PoA cycle procedure Validation & verification standard	**Many elements suitable but amendments needed, e.g.** • Overall mitigation in global emissions (OMGE) • Article 6 approval / authorization • Avoiding double issuance • Addressing non-permanence • Sectoral / jurisdictional crediting • Appeals procedure
Methodologies	**Methodologies need updating, e.g.** • Ambition of baselines • Consistency with NDCs and LEDS • Host Party participation • Treatment of policies

Examples of institutional arrangements

Documents	Issues to be addressed
Designated Operational Entities (DOEs)	**Option 1: Temporarily use CDM accreditation system** • Avoids duplication, simpler for DOEs and project participants • Raises operational issues, e.g. with regard to performance monitoring and responsibility for accreditation / suspension **Option 2: Establish new accreditation system** • Possible time delays for issuance • Parallel operation to the CDM more cumbersome for DOEs • May include specific guidance on new A6.4 requirements
CDM Registry	**Option 1: Amend CDM registry** **Option 2: Develop a new registry**
Panels & Working Groups	**Option 1: Temporary use of CDM methodologies and accreditation panel** **Option 2: Establish new panels** • At least two Supervisory Body meetings necessary
Designated National Authorities	Up to Parties to designate same or different institution

Project transition

Key principles

- Host Party approval
- Compliance with Article 6.4 rules (possibly with temporary exceptions)
- Possible rules for which type of activities are eligible for transitioning

Division of responsibilities between CDM and Article 6.4

	CDM	Article 6.4 mechanism
Issuance	Emission reductions or removals occurring **until 31 December 2020**	Emission reductions or removals occurring **on or after 1 January 2021**
Registration	Projects with a start of first crediting period **until to 31 December 2020**	Activities with a start of first crediting period **on or after 1 January 2021**
Accreditation	Accreditation, suspension, performance monitoring **until 31 December 2023**	Accreditation, suspension, performance monitoring **as of 1 January 2024**

Transition of CERs

Use of Certified Emission Reductions (CERs) issued for **emission reductions achieved until 31 December 2020** towards achieving NDCs

Options proposed in Article 6 negotiations

- No transition
- Full transition
- Limited transition (based on cut-off restrictions)

Key considerations

- Implications for ambition
- Implications for the carbon market (e.g. carbon credit prices)
- **Supply potential of CERs under different cut-off restrictions**

CER Transition

Supply potential and other policy considerations

What is the CER supply potential?

Technical supply potential

- Technical potential to issue CERs
- Assuming sufficient demand and sufficiently high prices
- Consideration of regulatory and technical limitations
  (e.g. end of crediting periods, technical performance, etc)

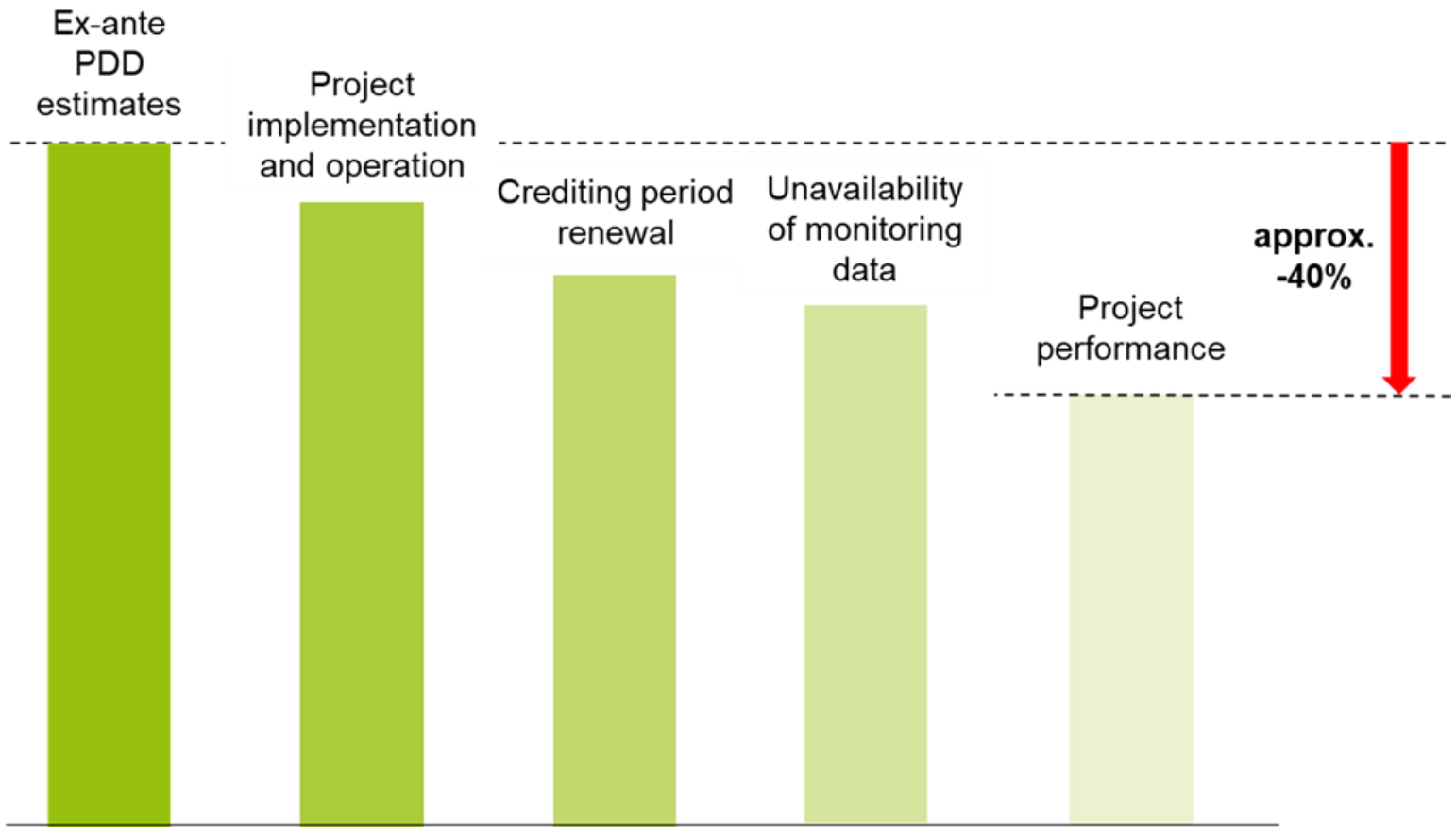
Can be estimated

Issuance scenarios

- Possible actual level of CER issuance and transition
- Depends on future demand and prices offered for CERs
- Depends on other developments
  (e.g. voluntary carbon market, CORSIA)

Highly uncertain

Factors affecting CER supply potential



Key differences among existing estimates

	NewClimate/ Oeko	IGES	UNFCCC
Starting point	Ex-ante emission reduction estimates in project design documents		
Restrictions on renewal of crediting periods	Full consideration		
Project implementation and operation	Adjustments based on detailed 2015 survey by NewClimate Institute		No consideration
Implications of renewal on ER calculations	Considered for industrial gas projects	No consideration	No consideration
Unavailability of monitoring data	Single average adjustment to all projects	Adjustment only to projects with high risks of no monitoring	No consideration
Project performance	Performance rates differentiated by project types and PAs / PoAs	Performance rates differentiated by project types	Different rates (based on historical market, not performance)
Other assumptions	None	None	Projects without contact with secretariat since 2017 will not issue CERs

Reasons for differences in supply estimates

What is being estimated?

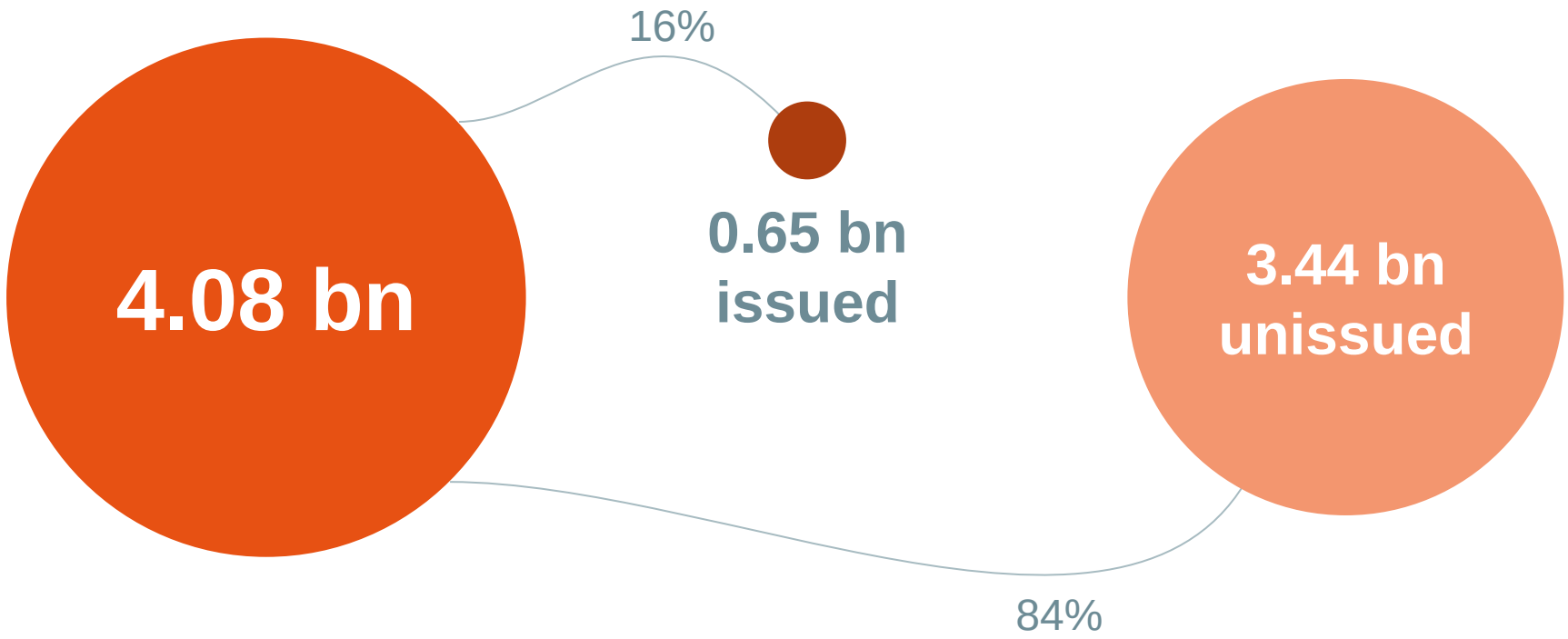
- NewClimate/Oeko and IGES: **Technical supply potential**
- UNFCCC Secretariat: **Issuance scenarios**
  (Scenarios about market situation, based on historical demand and prices over different periods)

What are the main factors

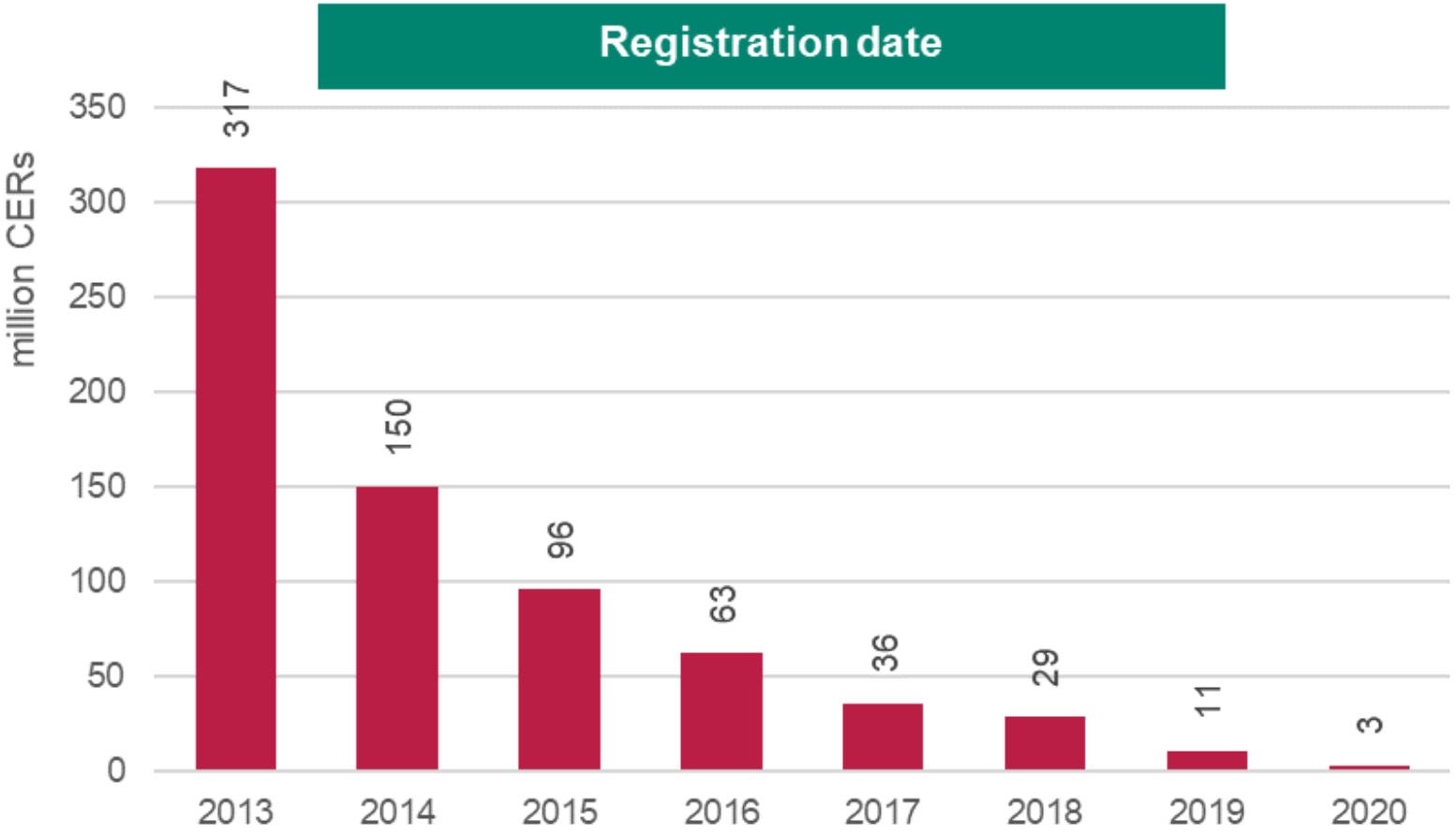
- Same database for all estimates
- Differences in what is estimated (technical supply or scenarios)
- Some differences in consideration of factors that limit supply potential

NewClimate/Oeko model: CER supply potential for emission reductions between 2013 and 2020 without restrictions on eligibility

Unrestricted supply potential of CERs (2013 – 2020)

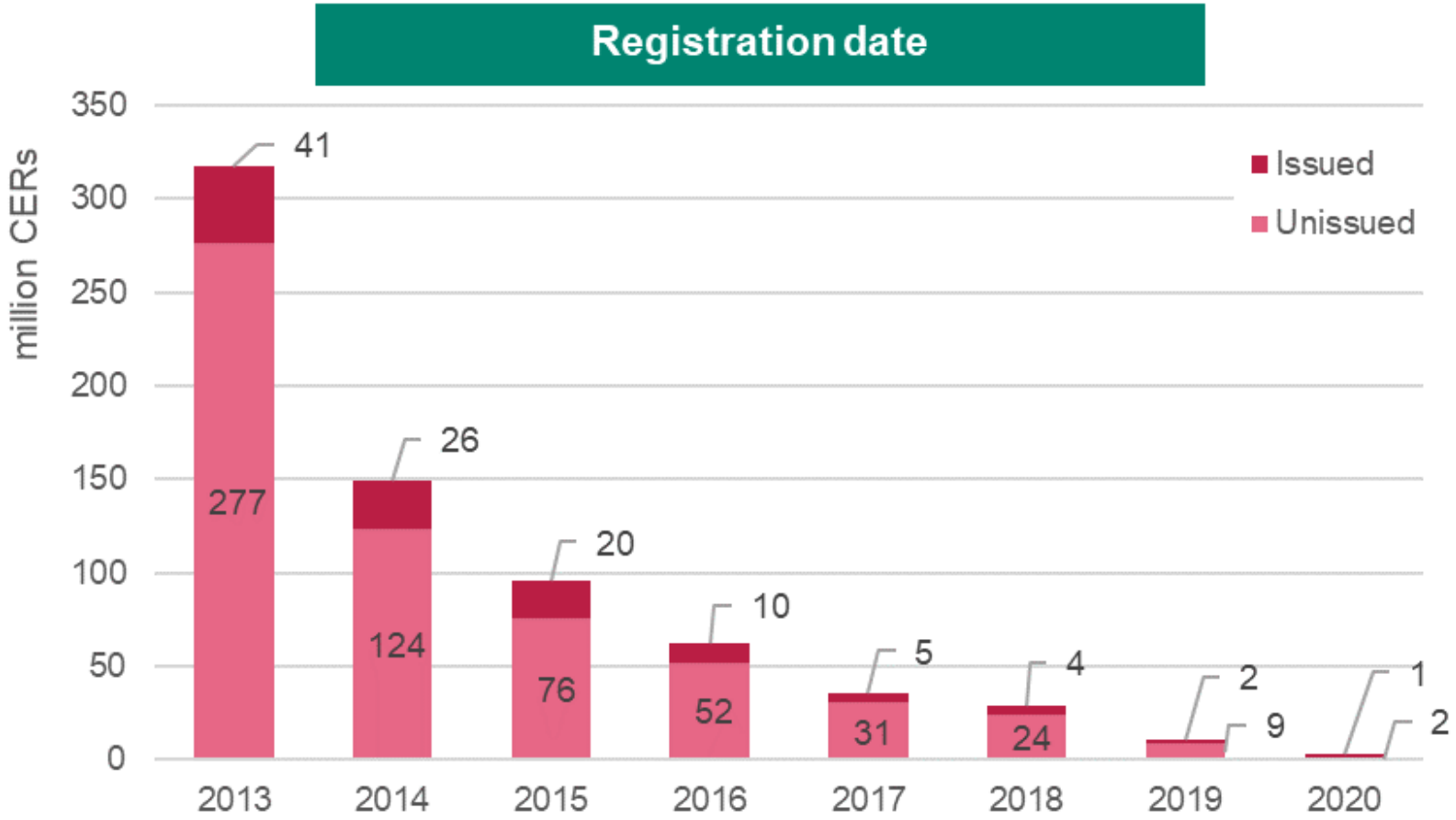


CER supply potential for emission reductions up to end of 2020 under **registration date** restrictions



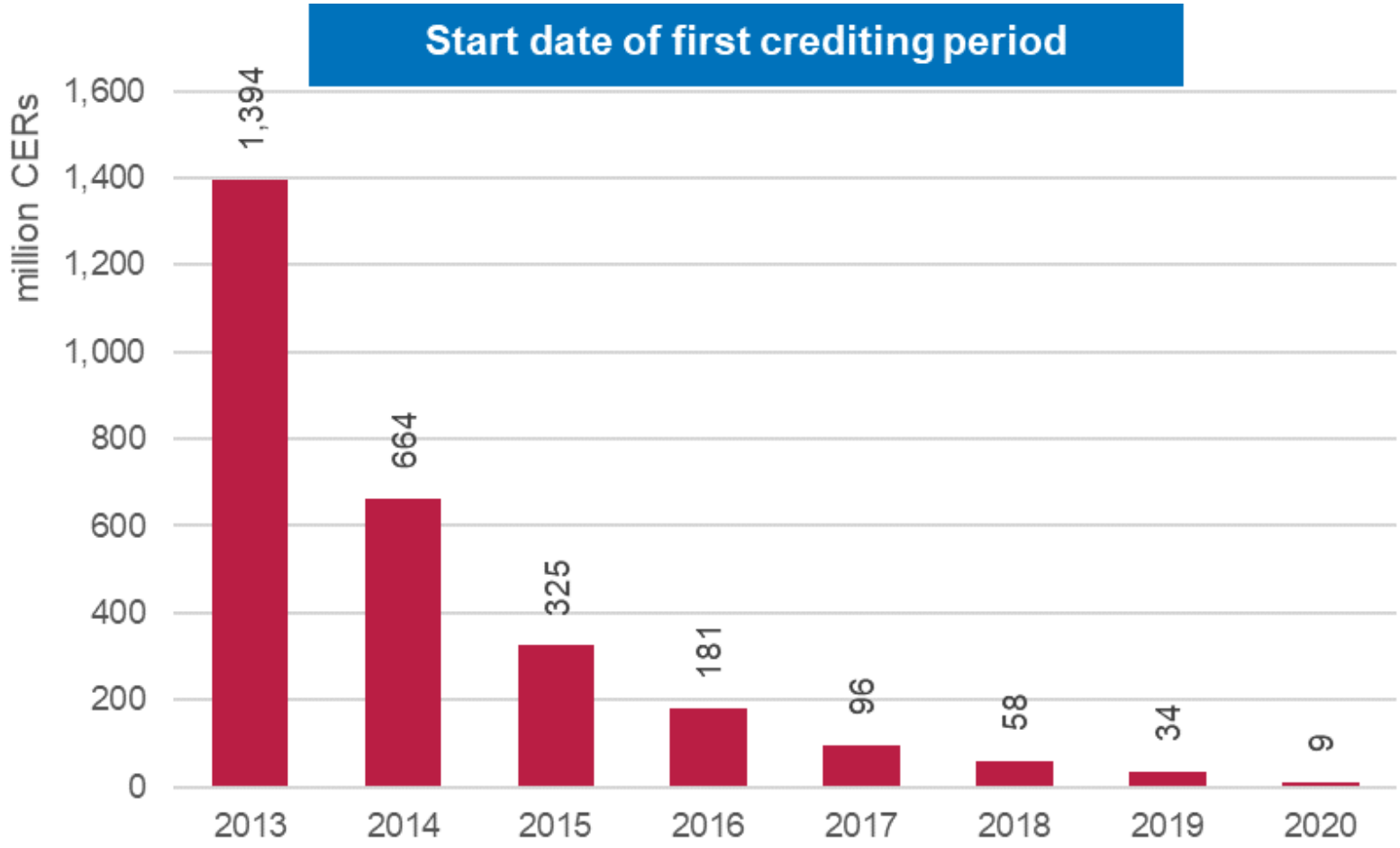
Supply potential (including issued CERs) from project activities **registered** on or after 1 January of each year from 2013 to 2020 for emission reductions up to 31 December 2020

The majority of the supply potential has not yet been issued as CERs



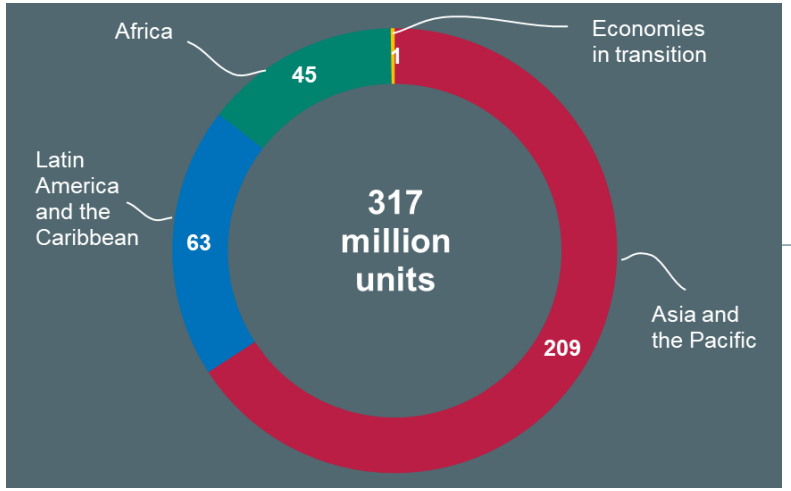
Supply potential (including issued CERs) from project activities **registered** on or after 1 January of each year from 2013 to 2020 for emission reductions up to 31 December 2020

CER supply potential for emission reductions up to end of 2020 under **start date of first crediting period** restrictions

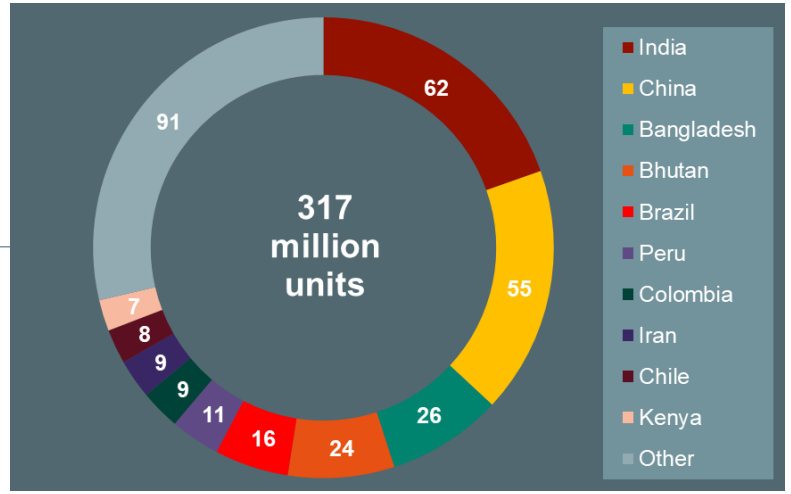


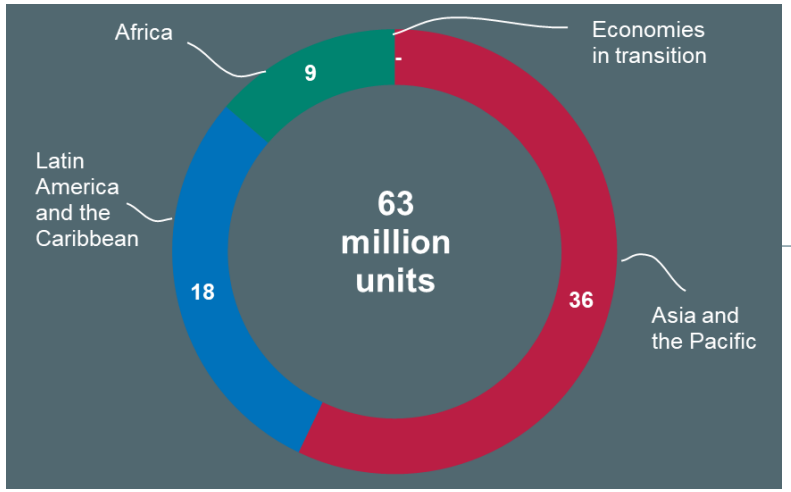
Supply potential (including issued CERs) from project activities with a **start date of first crediting period** on or after 1 January of each year from 2013 to 2020 for emission reductions up to 31 December 2020

CER supply potential for emission reductions up to end of 2020 by **geographical region**

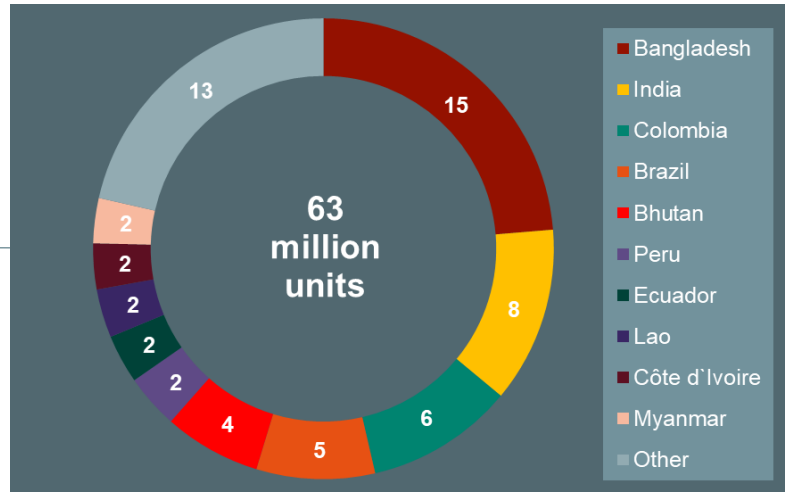


CER supply potential for projects registered since start of **2013**





CER supply potential for projects registered since start of **2016**



Implications of allowing CER transition

Ambition

- Emission reductions up to 2020 have or have not occurred
- A decision in 2021 to allow use of CERs towards NDCs can, by definition, not provide any incentives for delivering further emission reductions
- Ambition of NDCs is diluted by the amount of CERs transitioned

Market implications

- Lower prices for ITMOs (up to 3 billion CERs could be available at less than 1 EUR)
- Fewer new mitigation measures / carbon market projects implemented
- Trust in the market may be further undermined

Other considerations

- CERs are owned by project developers partially based in Annex I countries
- CER supply dominant from few countries
- Transition of CERs leads to fewer SOP collected and less OMGE achieved
- Transition of CERs channels limited resources away from new investments

CDM activity transition

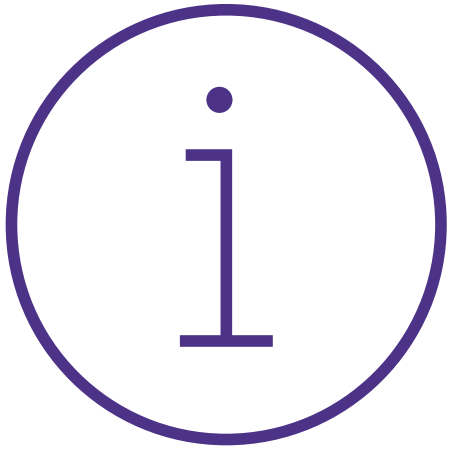
Estimates of potential supply of units from CDM activities for emission reductions from start of 2021

What is CDM activity transition?

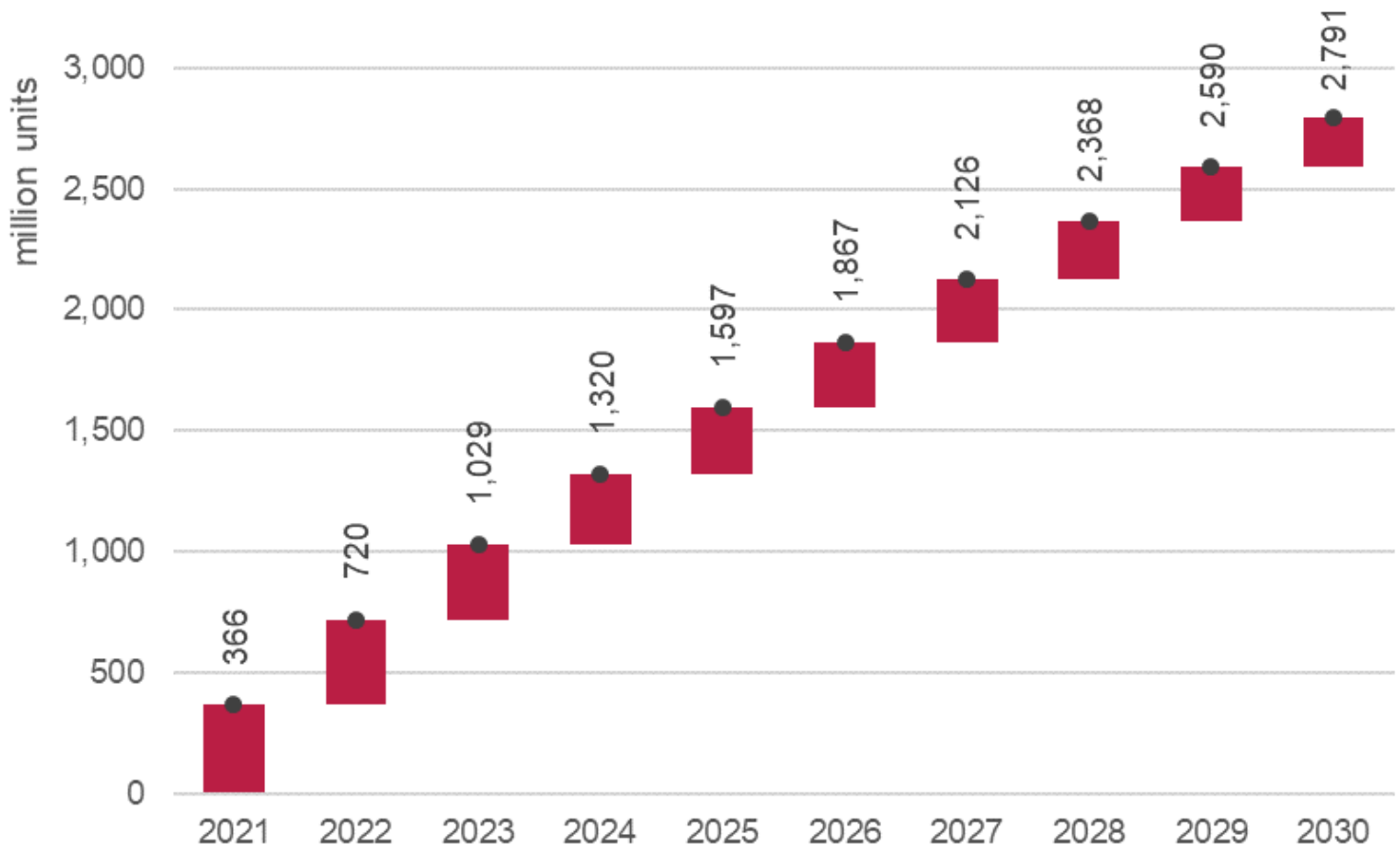
- Refers to **registration of existing CDM projects under the new Article 6.4 mechanism**
- In this context we look at **emission reductions from existing CDM projects from start of 2021**
- Parties have not yet agreed whether any CDM activities could be transitioned at all, or under which conditions transition may be approved, e.g.
  - Host country authorisation
  - Types of activities and/or project circumstances
  - Ability to meet and implement 6.4 participation rules and requirements

Headline assumptions for estimating supply potential under an unrestricted CDM activity transition

- **All existing CDM activities take necessary steps to transition to new mechanism** and meet relevant criteria, such as host country authorisation
- Activities able to **continue renewing crediting periods up to their maximum duration** (where renewal has been requested in time)
- Continued delivery of emission reductions **until the end of the projects' technical lifetimes** (differentiated by project type)
- Analysis covers annual supply *potential* (subject to adjustment factors to reflect ability to issue credits) for emission reductions **from start of 2021 to 2030**



Existing registered CDM projects could supply approximately 2.8 billion units for emission reductions between 2021 and 2030



Supply potential from all registered activities **for emission reductions from 1 January 2021** in each year from 2021 to 2030

Red bars reflect annual emission reductions and **dots** show cumulative totals

We analyse a selection of potential activity transition restrictions

Transition limited to vulnerable activities at risk of discontinuation

Transition limited to PoAs and small-scale PAs

Project activity registration date
(e.g. only projects registered since start of 2013 or 2016)

Crediting limited to remainder of project's existing crediting period as at 31 Dec 2020

List of possible options for which activities may transition
(as per Chair's summary of informal dialogue on CDM transition 11 October 2021)

Transition limited to vulnerable activities at risk of discontinuation

Transition limited to PoAs and small-scale PAs

Project activity registration date
(e.g. only projects registered since start of 2013 or 2016)

Crediting limited to remainder of project's existing crediting period as at 31 Dec 2020

Options covered by our analysis

Active CDM activities
(operational, with a current crediting period)

Only those from within the NDC of the host Party

Our analysis does not explicitly cover these two options

Implications of activity transition options for Paris goals

Project level

- Buying credits from non-vulnerable CDM projects does not directly incentivise further emission reductions
- Continued support for vulnerable CDM projects can enable abatement that would not otherwise occur, but robust identification of such projects is challenging and bears risks

Host-country level

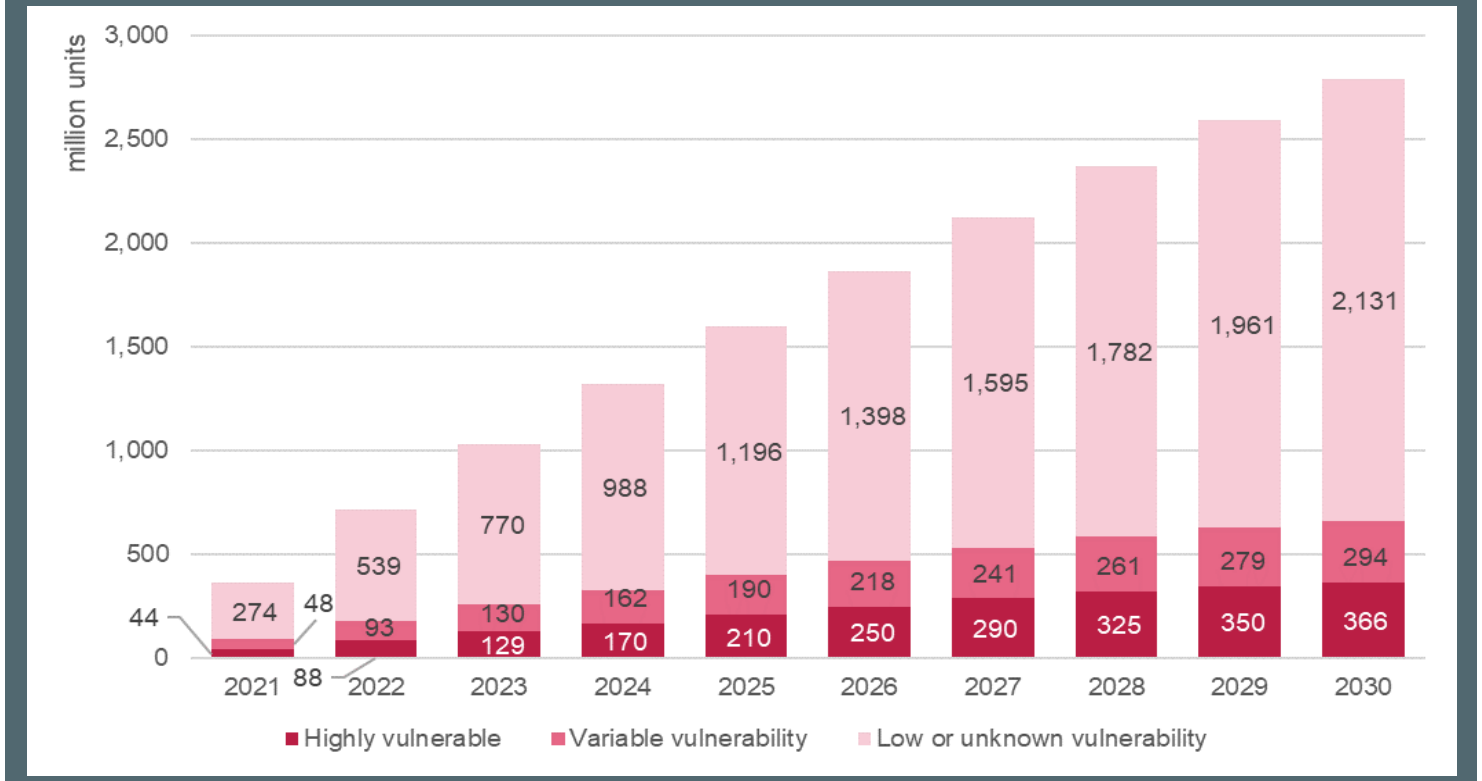
- If host countries have ambitious NDCs and apply corresponding adjustments, transitioning non-vulnerable activities will undermine their ability to achieve their targets
- If host countries have weak NDCs, or do not apply corresponding adjustments, transitioning non-vulnerable projects will increase global emissions

Investment signals

Some market stakeholders raise concerns that limiting transition undermines market credibility…

- Project financing decisions unlikely based on material post 2020 credit revenues
- Extending crediting lifetime of existing projects may reward some investors, but can also diminish the attractiveness of new investments

Majority of the CDM supply potential is from activities that will continue abatement regardless of credit revenues

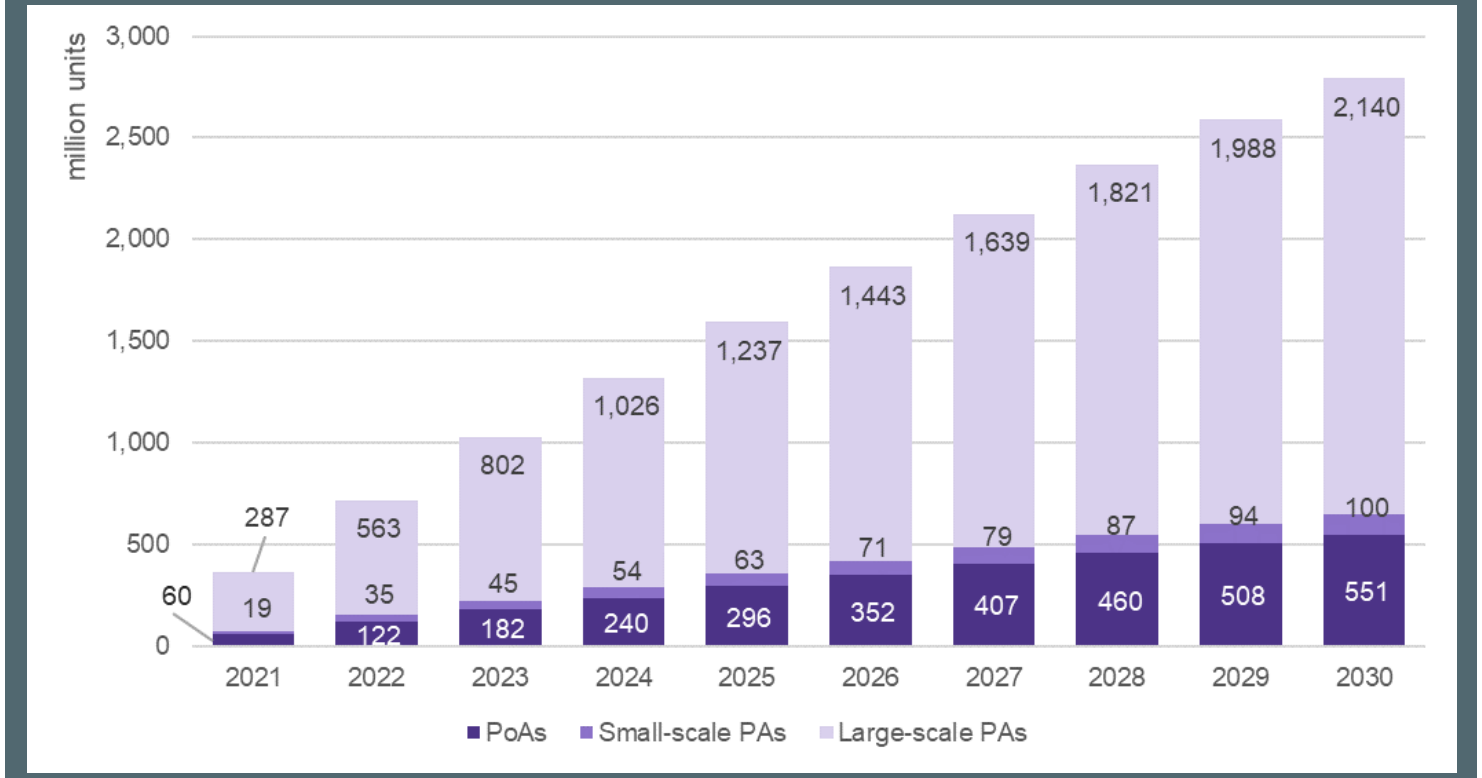


Supply potential from all activities according to vulnerability assessment // emission reductions from 1 January 2021 to the end of each year up to 2030

Bars reflect **cumulative** totals by the end of each year

- Some projects classified as highly vulnerable may have already ceased abatement given continued low market price signal for credits in recent years
- Continued support for limited number of vulnerable activities **could deliver abatement that would otherwise not happen**
- **Robust identification process required** to ensure limitation to truly vulnerable activities

PoAs and small-scale activities could together supply 650 million units for emission reductions from 2021-2030

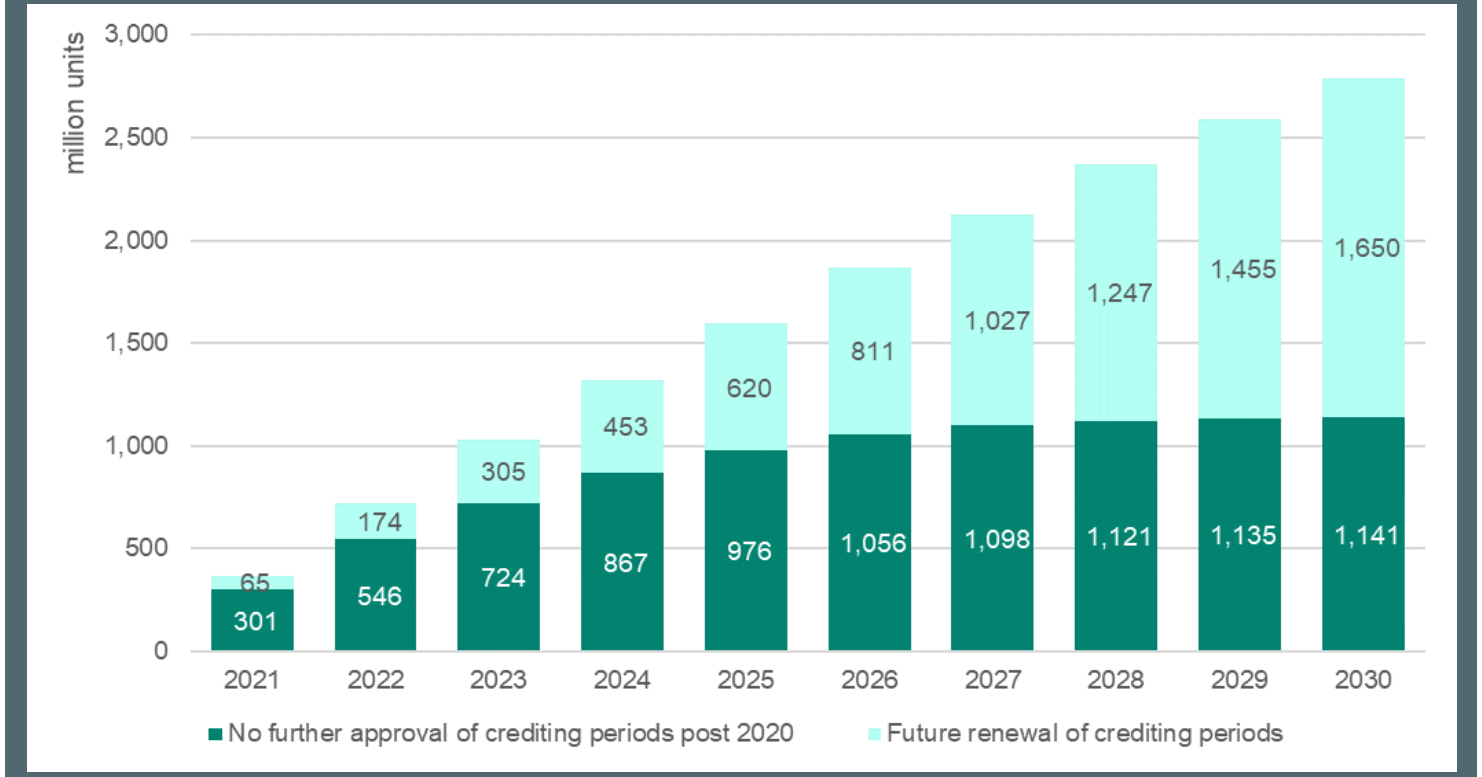


Supply potential from all registered PoAs and small-scale activities // emission reductions from 1 January 2021 to the end of each year up to 2030

Bars reflect **cumulative** totals by the end of each year

- Analysis of PoAs includes only component project activities (CPAs) included by June 2021, i.e. any new CPAs added in the future to existing PoAs would increase supply estimates

Supply potential of approximately 1 billion units under currently approved crediting periods for emission reductions from 2021-2030

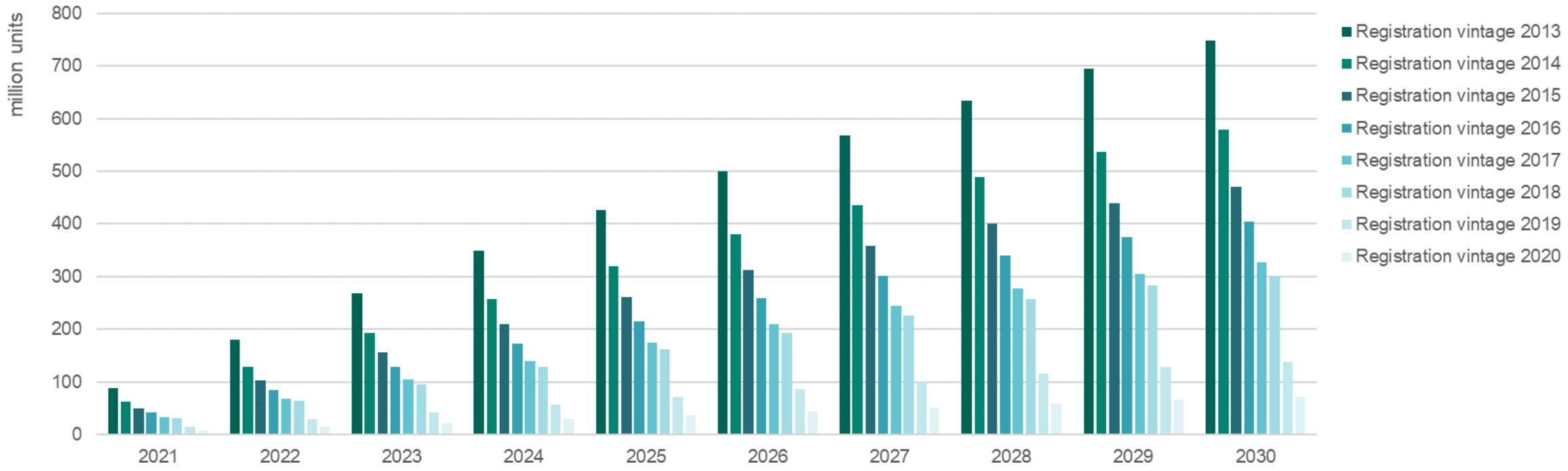


Supply potential from all activities without / with further crediting period renewal // emission reductions from 1 January 2021 to the end of each year up to 2030

Bars reflect **cumulative** totals by the end of each year

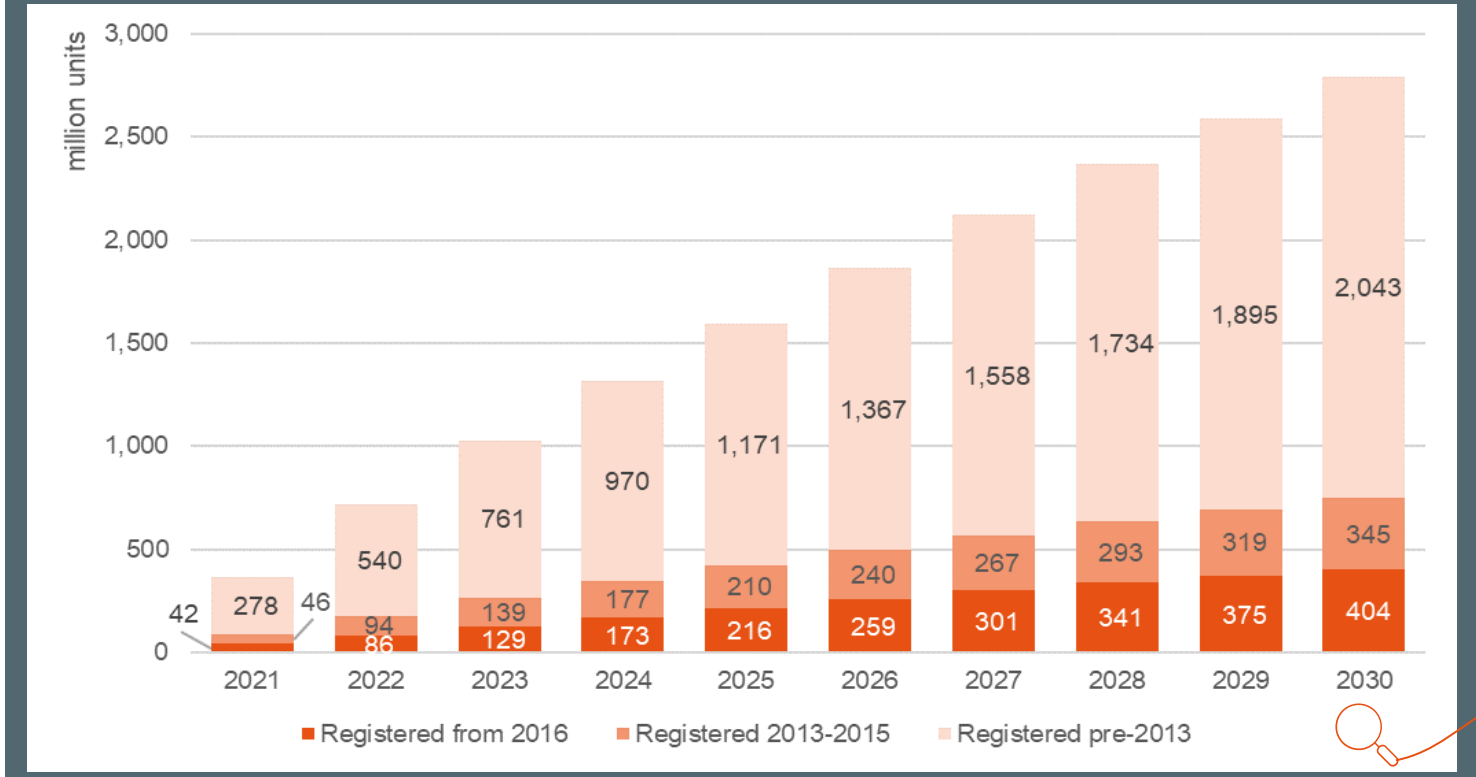
- Dark shaded estimates reflect supply potential if activities can only receive credits up to the later of **either the end of their last approved crediting period (as at June 2021),** i.e. no further crediting period renewals granted to existing projects
- Most eligible emission reductions would occur in period up to 2025 with very limited additional supply for reductions from existing projects in second half of decade

Activities registered since the beginning of 2013 could supply 750 million units for emission reductions between 2021 and 2030



Supply potential from project activities registered from the start of each year from 2013 to 2020 (different shaded bars), for emission reductions from 1 Jan 2021 to the end of each year from 2021 to 2030 (horizontal axis)

Projects registered since 2016 account for 12-14% of the supply potential from all projects for emission reductions from 2021-2030

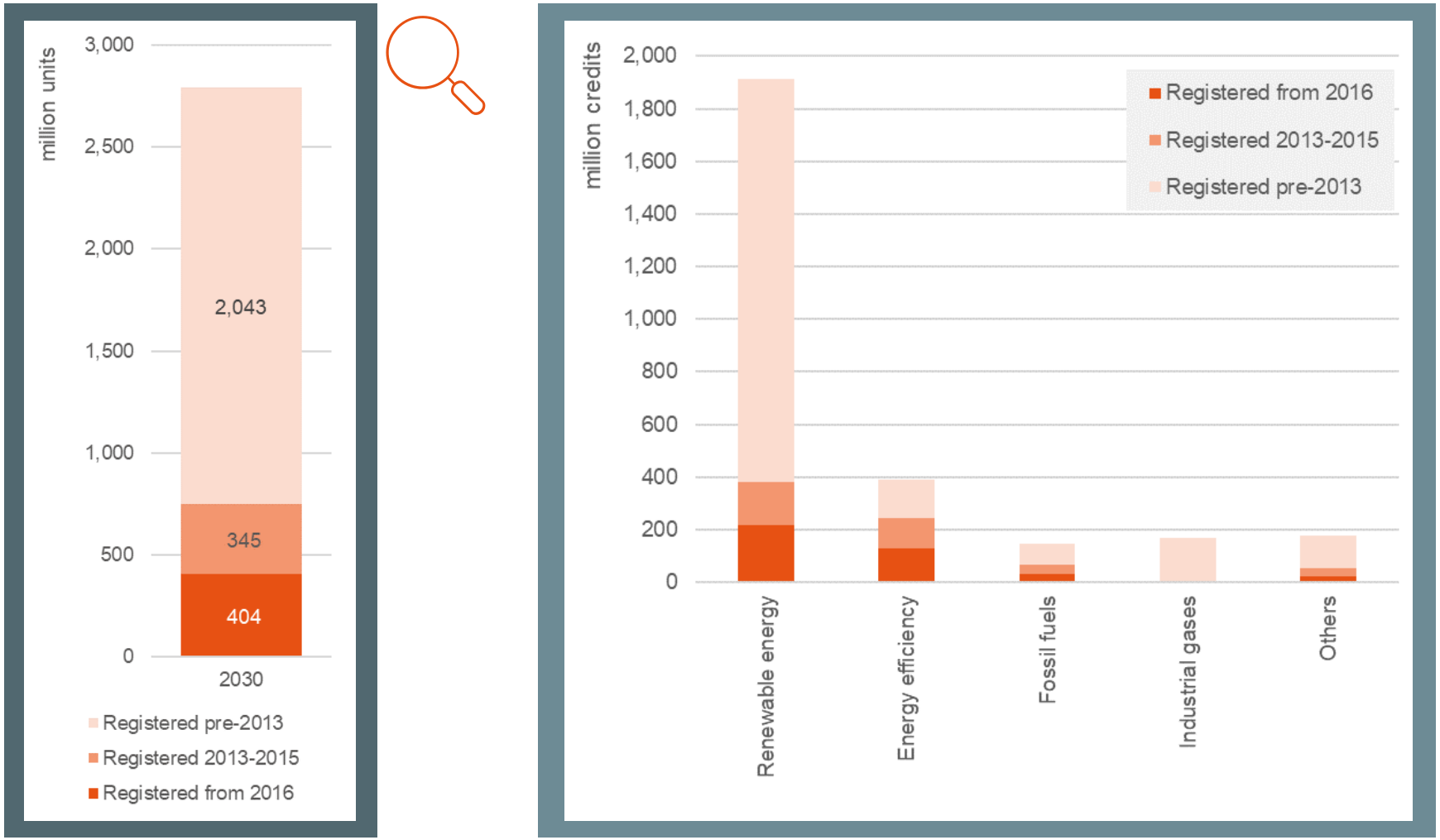


Supply potential from activities according to CDM registration date // emission reductions from 1 January 2021 to the end of each year up to 2030

Bars reflect **cumulative** totals by the end of each year

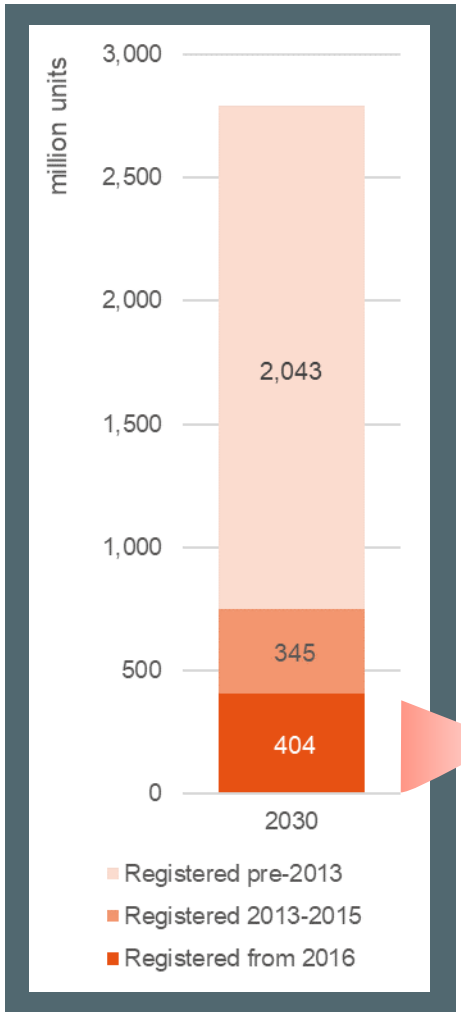
- **Projects registered pre-2013 account for the majority of supply potential** even for emission reductions in 2020s
- Projects registered since 1 Jan 2016 could supply approximately **400 million units** for emission reductions from 2021-2030, with an additional **345 million units** from projects registered during 2013-2015 calendar years
- Following slides further breakdown these registration vintage cut-offs for emission reductions up to 2030 into broad project types and host countries

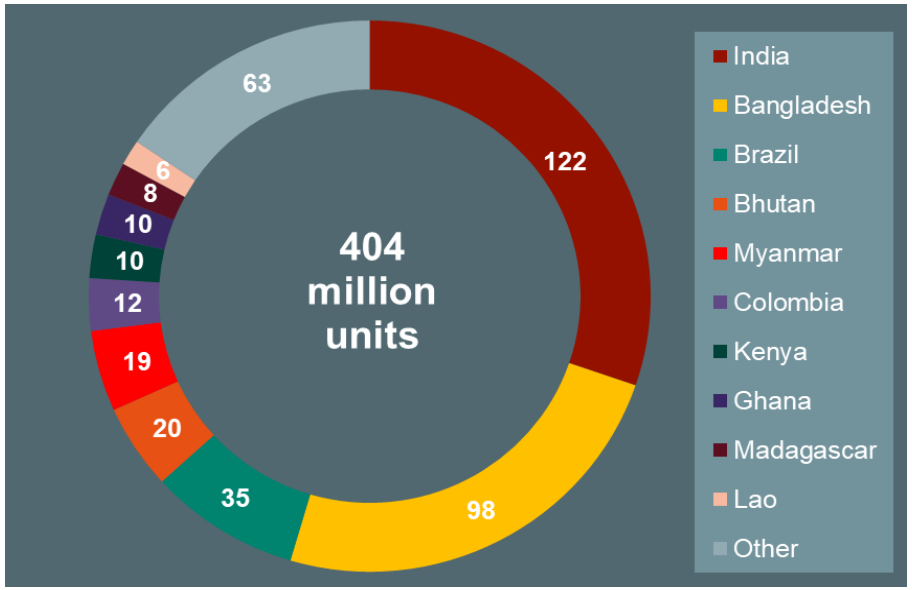
Renewable energy projects make up the majority of the supply potential (2021-30) regardless of the registration date cut-off

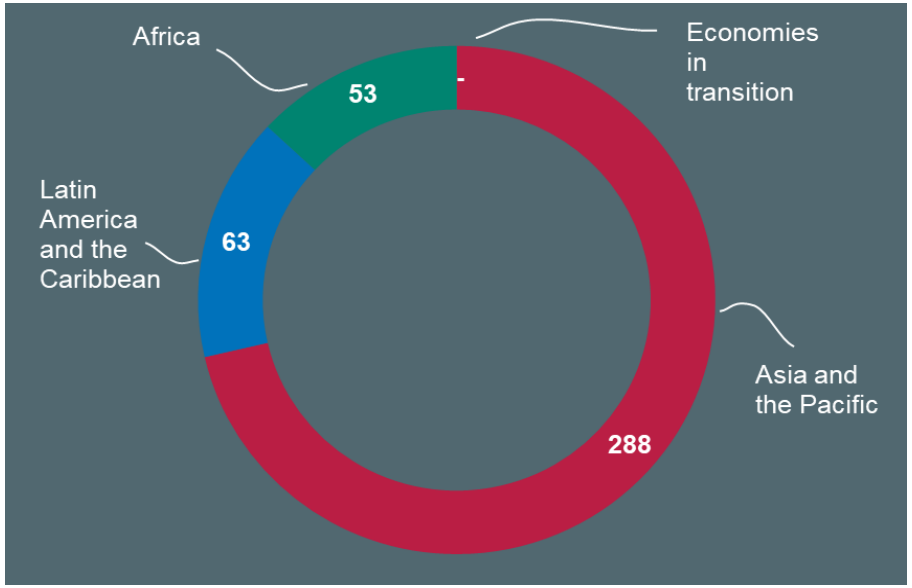


- Renewable energy and energy efficiency projects account for most of the supply potential irrespective of project vintage
- Supply potential from industrial gas projects registered since 2013 is almost zero
- Even under a 2016 registration date cut-off a limited volume of units could continue to come from fossil fuel-based projects

India and Bangladesh host over half the supply potential from projects registered since 2016 for emission reductions from 2021-2030

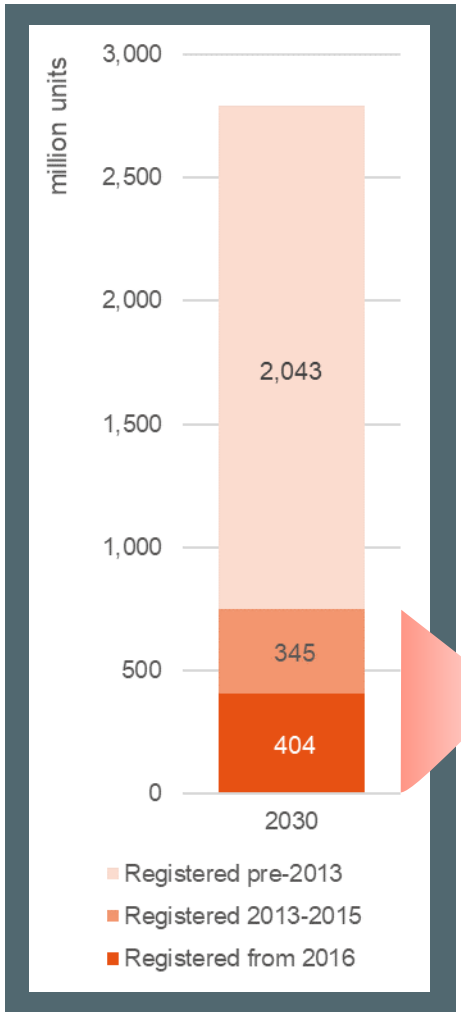


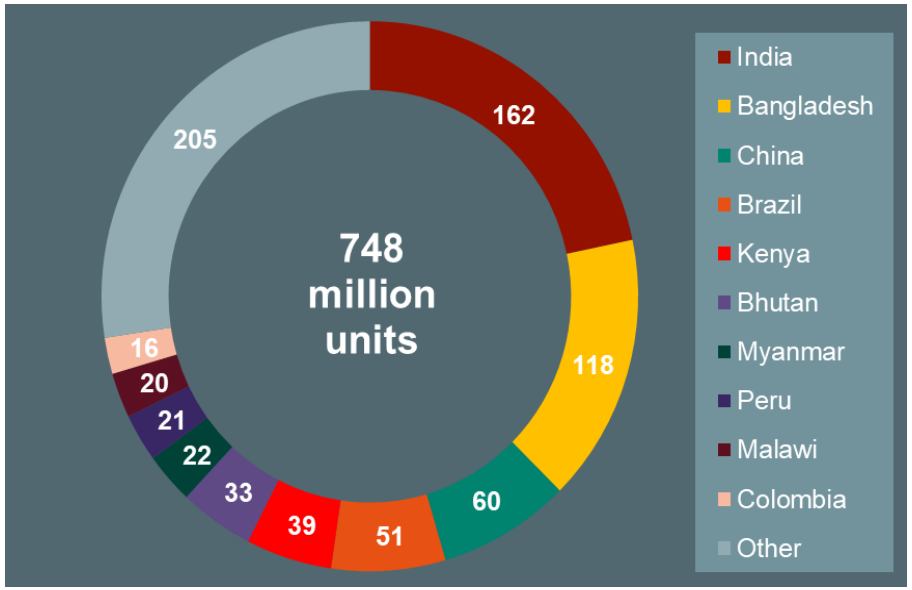


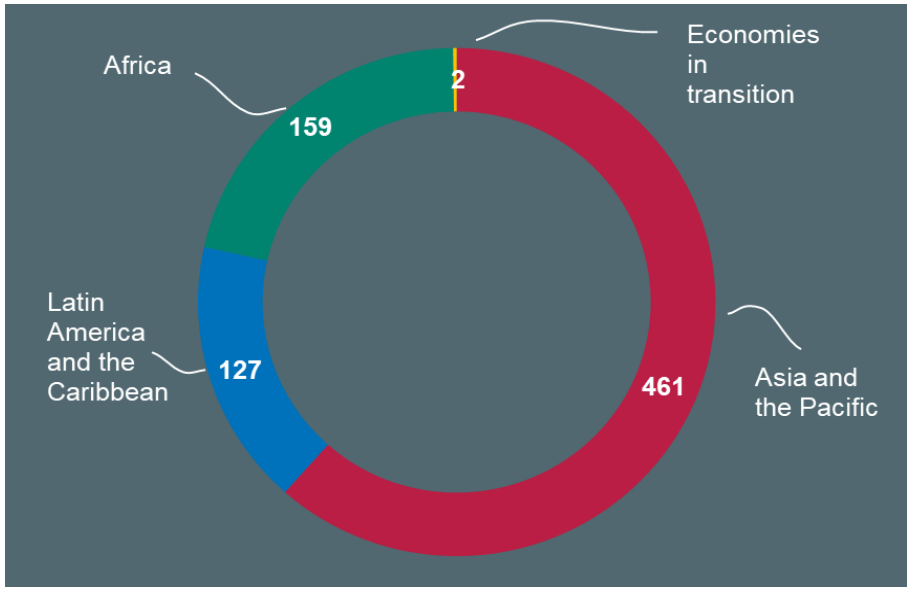


- Top host countries for credit supply from emission reductions in the 2021-2030 period from existing CDM projects registered since 1 Jan 2016 are: India (122 million); Bangladesh (98 million); Brazil (35 million); Bhutan (20 million); Myanmar (19 million)
- Over 70% of supply potential located in Asia and the Pacific region; 16% in Latin America and the Caribbean and 13% in African countries

Relative share of supply potential is higher for African and Latin American countries when considering projects registered from 2013

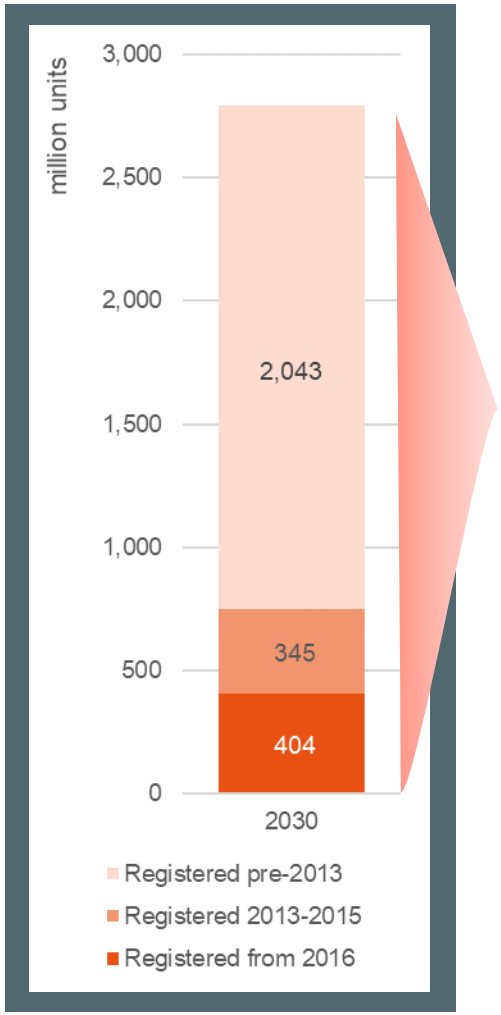


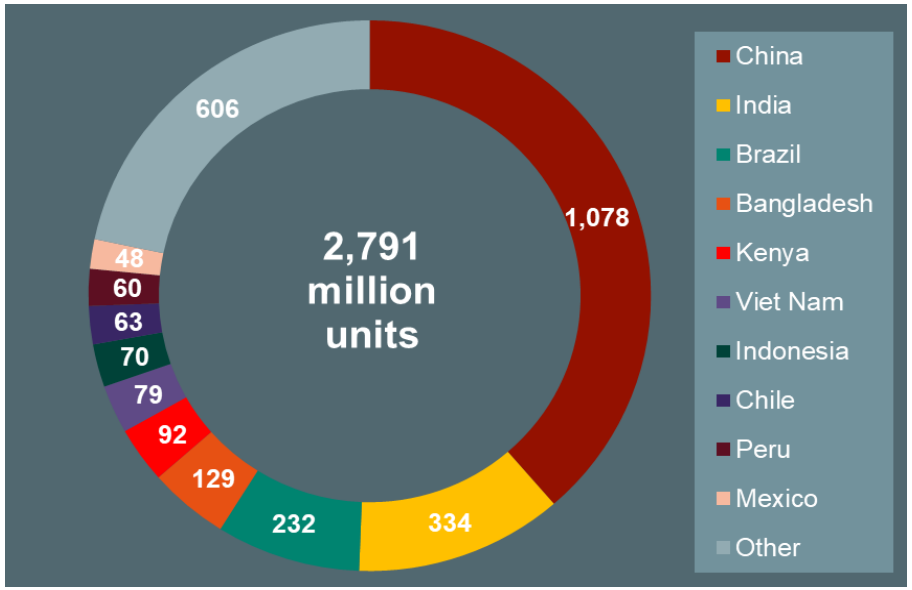


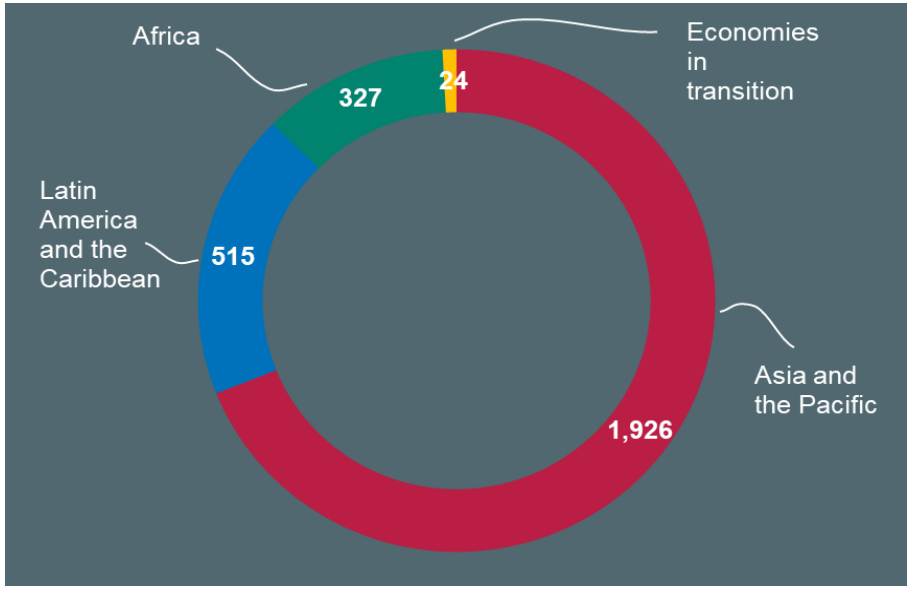


- Under a 2013 registration date cut-off India and Bangladesh still represent the largest sources of supply potential, but with a smaller overall share of the total than under a 2016 registration date cut-off
- 62% of supply potential located in Asia and the Pacific region; 21% in Africa; and 17% in Latin America and the Caribbean countries

Chinese projects dominate unrestricted supply potential for emission reductions from 2021-2030







- In the case that all CDM projects would be eligible to transition and issue credits for emission reductions in the 2021-2030 period, the largest sources of credit supply would be China (1,078 million); India (334 million), Brazil (232 million, Bangladesh (129 million) and Kenya (92 million)

Key takeaways for any CDM transition to align with Paris goals

- **Avoid any use of CERs towards NDC targets:** it risks displacing new and urgent mitigation efforts

- **Limit any CDM activity transition to truly vulnerable projects** that will otherwise cease abatement
  - All existing CDM activities could continue to supply almost 3bn credits over this decade, the majority of which are from projects that are not vulnerable (i.e. that do not depend on credit revenues to continue abatement)
  - Support for the limited number of truly vulnerable projects can deliver abatement that would not otherwise happen, but robust criteria to determine vulnerability are critical

- **Host countries should only authorise transition of activities that remain inaccessible** to deliver themselves to avoid undermining their ability to achieve their NDC, or global abatement efforts

- **Target available finance towards new activities or those at risk of discontinuing abatement** to ensure Paris market mechanisms deliver credits reflecting emission reductions that would not otherwise occur and avoid enabling transition of significant credit volumes that serve to dampen investment signals

Response

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Q&A