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MARKET MECHANISMS UNDER THE UNFCCC – CDM & JI

Perumal Arumugam Pillai
Team Lead, Programme officer,
RDU unit of SDM, UNFCCC



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Part 1

How are the emissions units generated by your programme, mechanism or project?



Carbon Markets for which emission reduction units are generated.

Kyoto Protocol is adopted - 1997

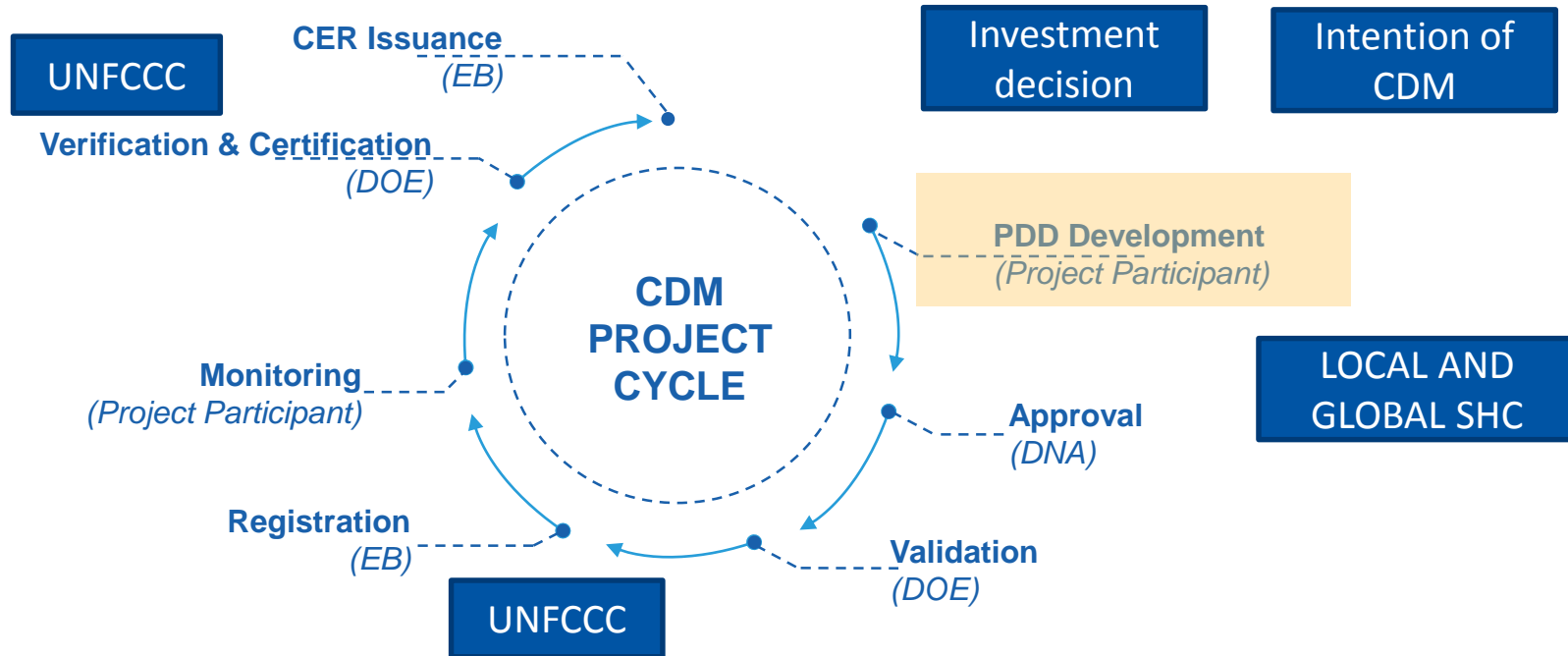
Kyoto Protocol enters into force - 2005

- Under the Kyoto Protocol, the CDM was designed to meet a dual objective:
 - a) help developed countries meet their emission reduction targets, and
 - b) assist developing countries in achieving sustainable development.
- NOW IT IS ALSO USED FOR NON-COMPLIANCE PURPOSES





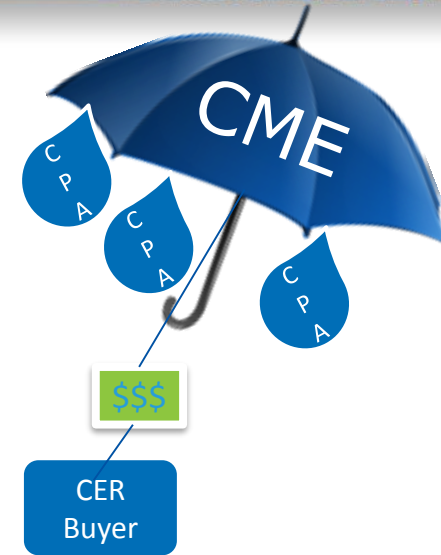
CDM PROJECT CYCLE – Process of Implementation to Issuance





TYPES OF PROJECTS AND PROGRAMMES

- **Individual installations** – stand alone projects or bundled.
- **Sectoral applications** - Use of standardized baselines
- **Programme of activities**
- Scale-up the CDM
 - No specified size limits PoA registered at the start with one CPA and grows
 - Can be geographic (e.g. a certain city/province)
 - CPA can be time bound (e.g. activities commencing in a certain year)
- Reduce transaction costs
 - Individual project developers not directly engaged in the CDM process
 - Monitoring and verification possible for a number of CPAs
 - Reduces regulatory risks and uncertainties
 - CPA inclusion could be done by the DOE without Board.



CME – coordinating or managing entity
CPA – CDM programme activity



PROJECT TYPES COVERED AND REGIONS COVERED BY THE MECHANISM

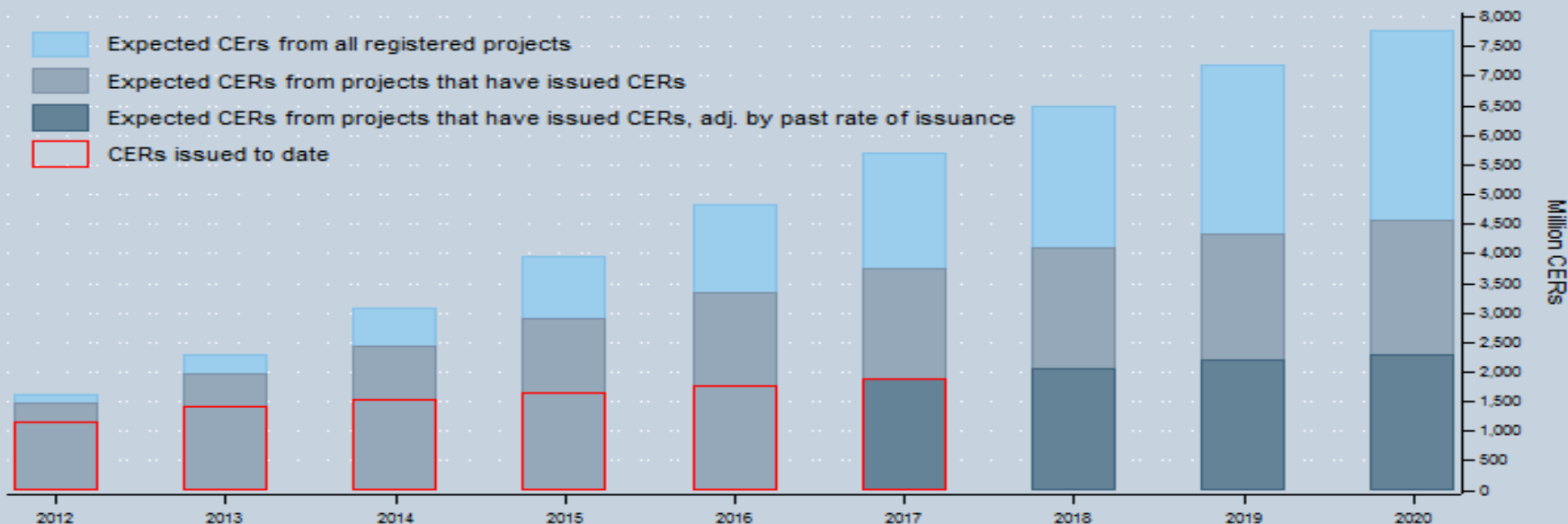
Sectoral Scopes	Sectoral Scopes
SS 01 Energy industries (renewable - / non-renewable sources) Thermal energy generation, renewables.	SS10. Fugitive emissions from fuels (solid, oil and gas)
SS 02 & 03 Energy distribution and Demand	SS 11. Fugitive emissions from production and consumption of halocarbons and SF6 – Emission of fluorinated gas and Refrigerant gas production.
SS 04 Manufacturing industries – cement and lime production.	
SS 05 Chemical industry – caprolactum, adipic, nitric chemical industry.	SS 12. Solvents use
SS 06 and 07 Construction and Transport (Two aviation methodology included).	SS 13. Waste handling and disposal – solid waste and waste water , manure
SS 8 Mining/Mineral production	SS14. Afforestation and reforestation
SS 09 Metal production – Aluminum and magnesium production; Iron, steel and Ferro-alloy production	SS 15 . Agriculture
	SS 16 CCS of CO2 in geological formations

ALL EXCEPT NUCLEAR AND BUNKER FUELS (INTERNATIONAL)



POTENTIAL SUPPLY FROM CDM – Volumes of Emission reduction units generated

Total potential supply of CERs from end KP 1st CP to 2020



Data as of 31 Dec 2017
Source: UNFCCC



TYPES OF PROJECTS AND PROGRAMMES

- Number of programmes/Project registered – **8000 ++**
- Number of developing countries participating – **111 +**
- Issued CER – **1.87 billion**
- Number of baseline and monitoring methods – **215+**
- Accredited agencies – **32 +**
- Standardized baselines – **25+**
- Investment in SD projects – **300 billion US\$**
- Renewable electricity supplied – **100,000 Gwh /Yr.**
- Social development projects – **40%**
- Resource efficiency projects – **25%**
- Clean drinking water – **840,000**
- Regional economy – **27%**
- Efficient cook stoves – **1 Million**
- Trees planted – **152 Million**



Joint Implementation (JI)



Key concepts of Joint Implementation:

- > Climate change mitigation projects implemented between two Annex B countries.
- > Creation, acquisition and transfer of Emission Reduction Units (ERU).
- > JI projects eligible from year 2000, but ERU can only be issued for a crediting period starting after 2008.
- > ERU bankable to a max of 2.5% of Assigned Amount (AAU).

Track	Number of registered projects	Share of registered projects	Total million ERUs issued	Share of ERUs issued	ERUs issued per track
Track 1	597	92%	832	97%	
Track 2	51	8%	25	3%	
Total	648		857		



Eligibility requirements

a. Party to the Kyoto Protocol.	a. Party to the Kyoto Protocol.
b. Assigned amount calculated.	b. Assigned amount calculated.
c. National system in place for estimating emissions/removals.	
d. National registry in place for tracking assigned amount.	d. National registry in place for tracking assigned amount.
e. Submission of most recent required emissions inventory.	
f. Accurate accounting of assigned amount and submission of information.	

Track 1 (full eligibility)

Track 2 (partial eligibility)



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Part 2

What are the features and benefits of the emissions units generated by your programme, mechanism or project, including the means to ensure their quality?



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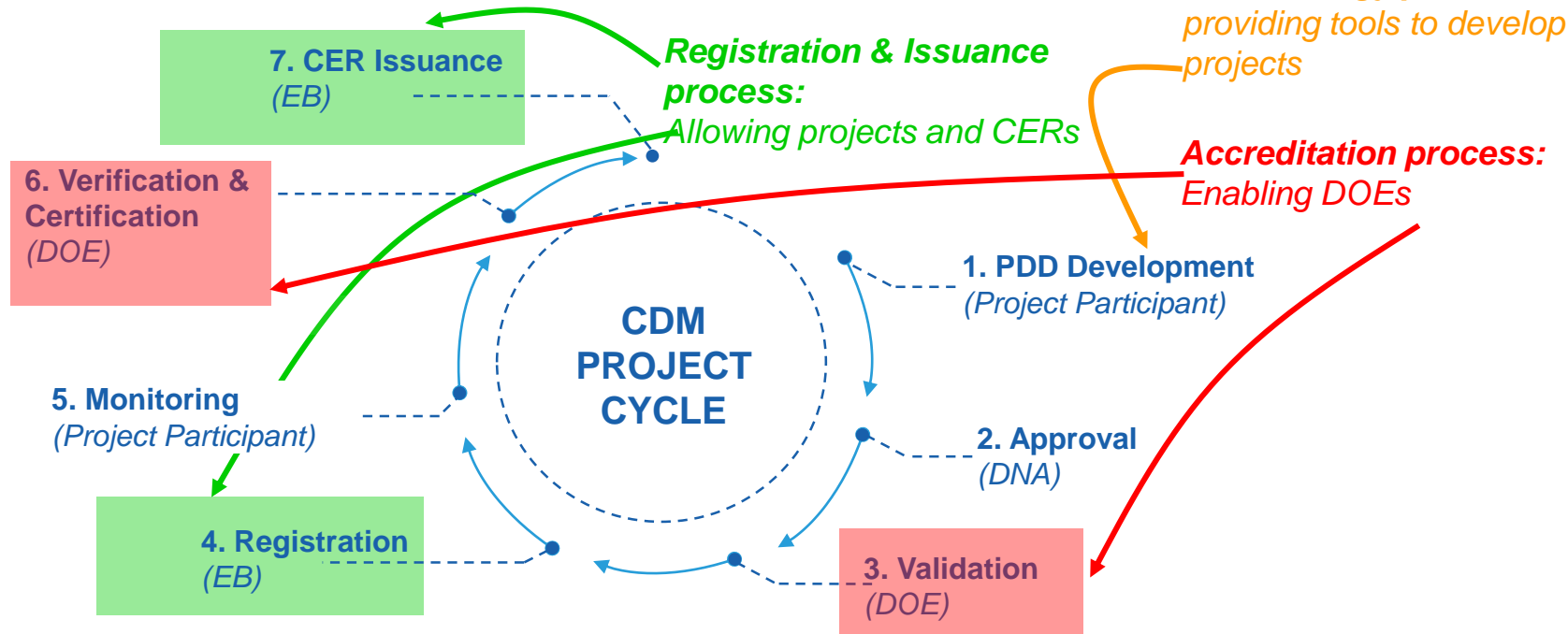
Trusted international oversight under UNFCCC

- Environmental integrity based on:
 - Additionality
 - Multilayered and stringent MRV
 - Pre-approved methodologies and standardized baselines
 - Detailed monitoring requirements
 - Public reporting
 - Verification by accredited auditors
 - Executive Board scrutiny
 - Stringent accreditation of verifiers
 - CERs tracking in the Kyoto registry system
- Host-country confirmation of support to sustainability (DNAs)



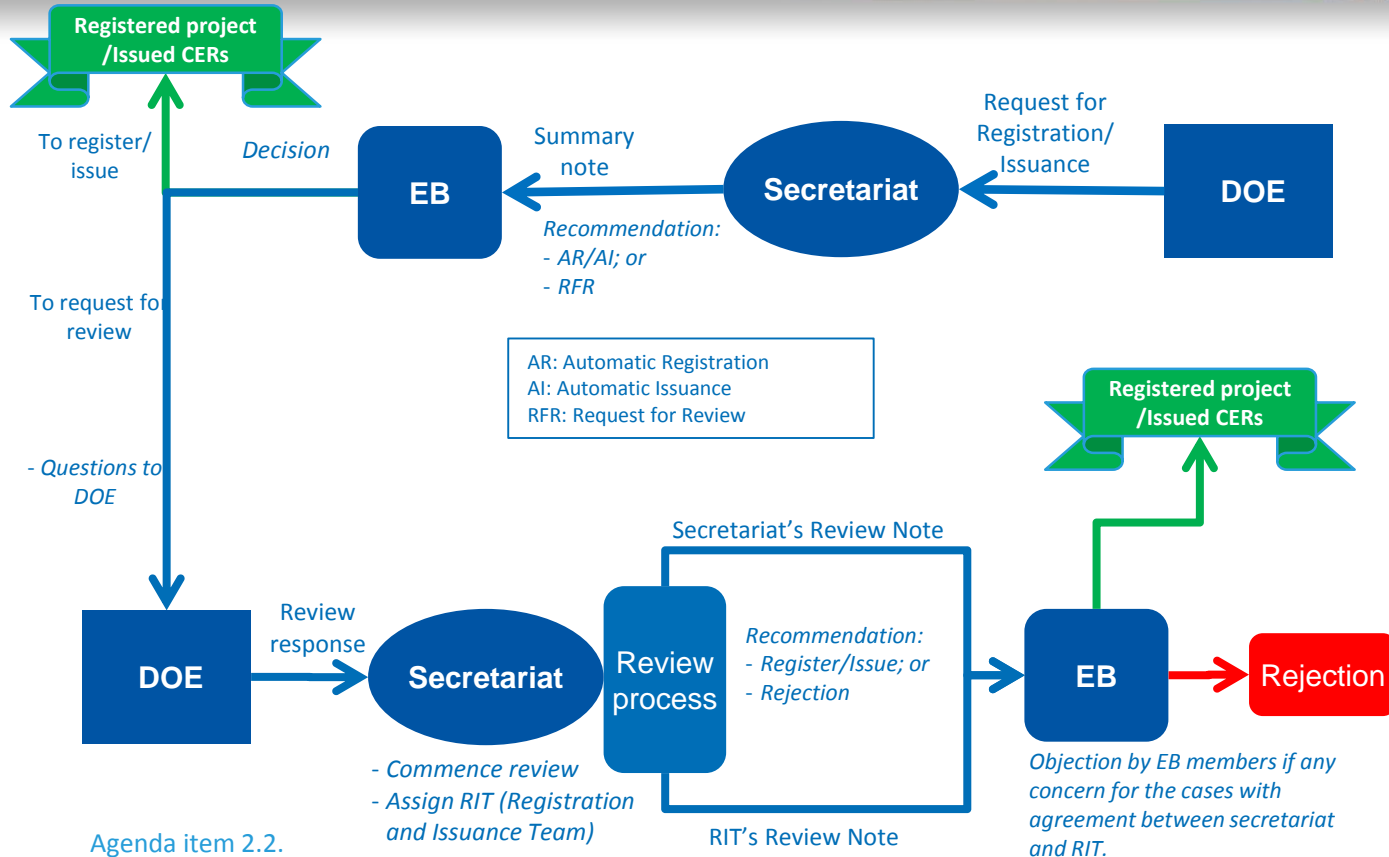


THREE ELEMENTS OF ENSURING QUALITY / EI





Overview of Registration/issuance & review procedure





FEATURES AND CO-BENEFITS BEYOND EI

- The **SD tool** provides a structured, consistent, comparable and robust manner of highlighting the sustainable development co-benefits of CDM project activities and PoAs.
- Comprises a check list of **predefined criteria** and **indicators** (from over 5000 projects) that help describe the impact of project activities and PoAs on the **environment**, **society** and **economy** of the host country.
- Enabling PPs and CMEs to elaborate on the SDC of their projects in a consistent way, enhance transparency and credibility of the CDM as whole, while maintaining host countries' prerogative to define their criteria for sustainable development.
- Seeks a **balance** between **standardization** and **flexibility** in the taxonomy
- Incorporated **inputs from stakeholders** on drafts of the tool during various periods.



FEATURES AND CO-BENEFITS BEYOND EI

- Delivery of sustainable development
- Stimulation of the local economy
- Employment creation
- Poverty alleviation
- Reduction of pollution
- Promotion of renewable energy
- Energy access
- Mobilize private capital and investments
- Establish a universal currency





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Part 3

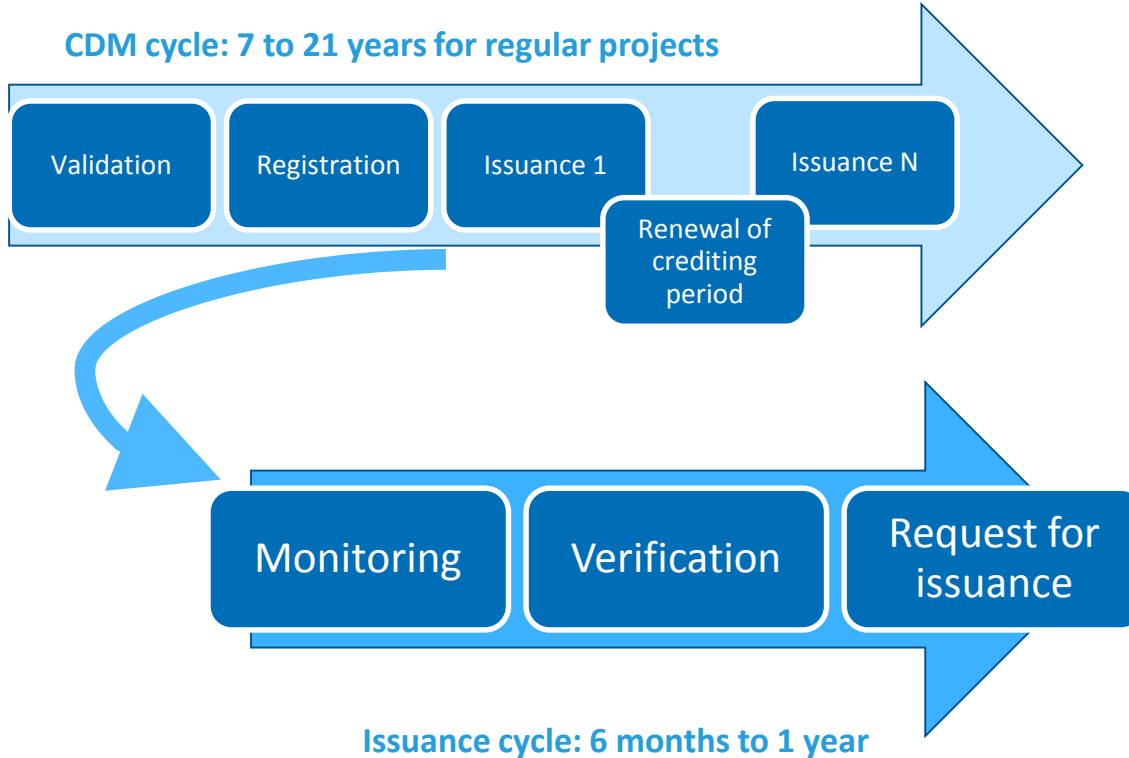
Where can potential buyers purchase the emissions units generated by your programme, mechanism or project?

Part 4

How does your programme, mechanism or project track the use of emissions units?

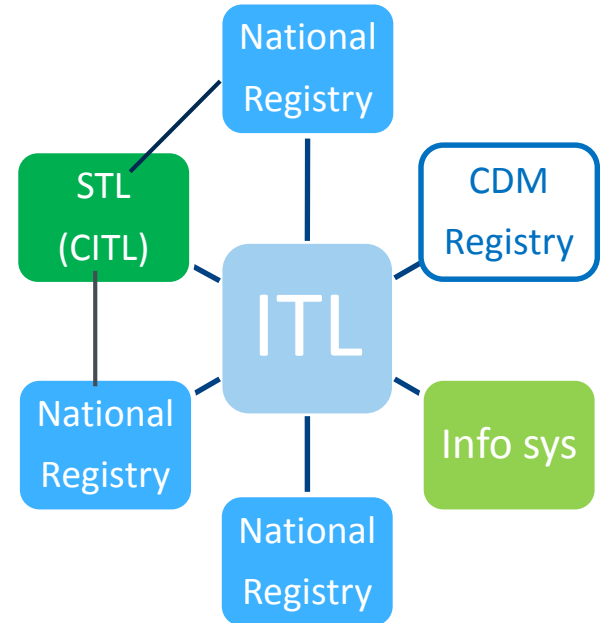
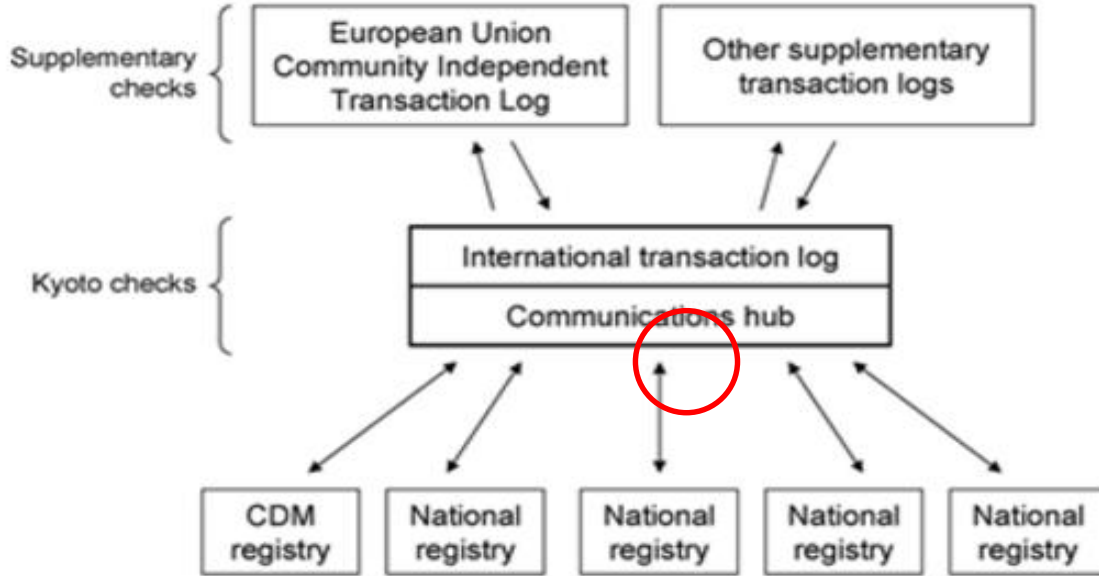


CDM life cycle and CER issuance cycle





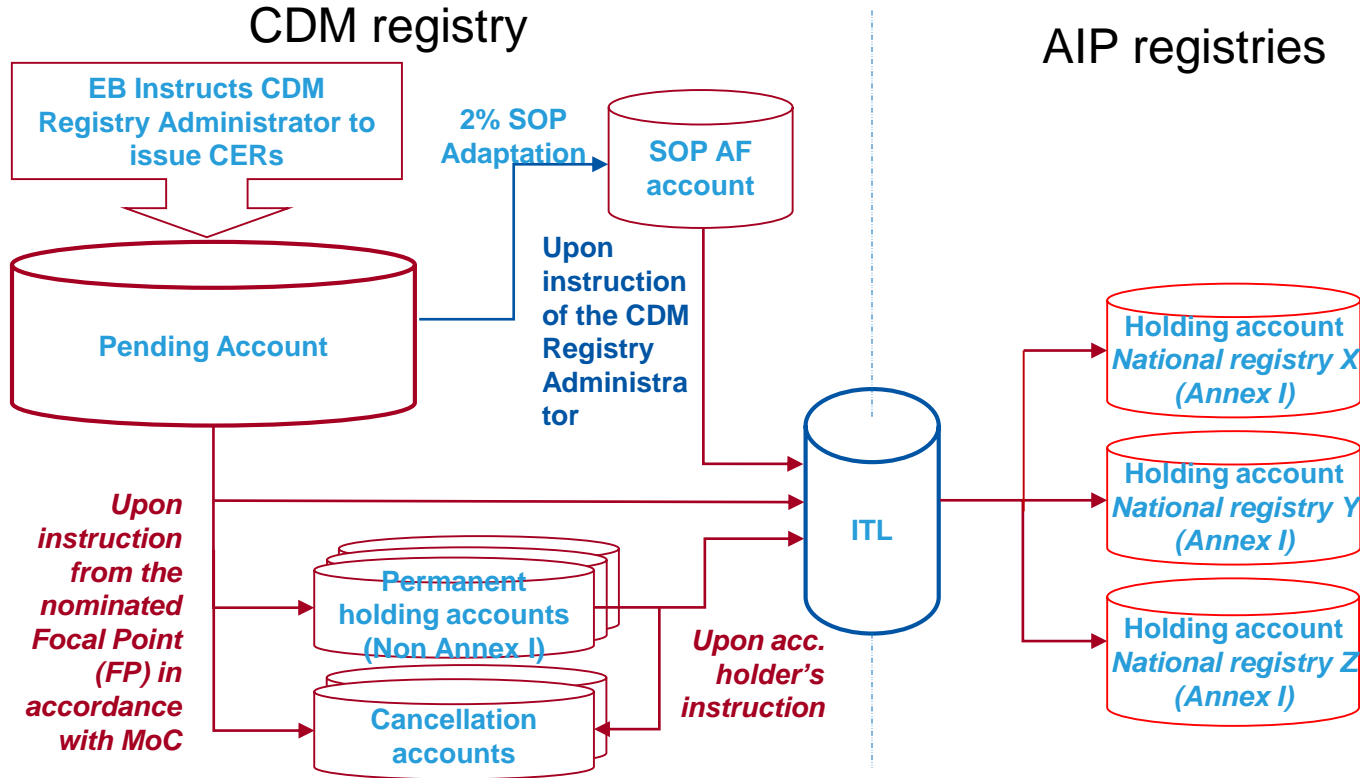
Kyoto registry system



- NR and CDMR are transaction registries
- TLs control transactions through automated checks
- CERs are tracked within the Kyoto registry system



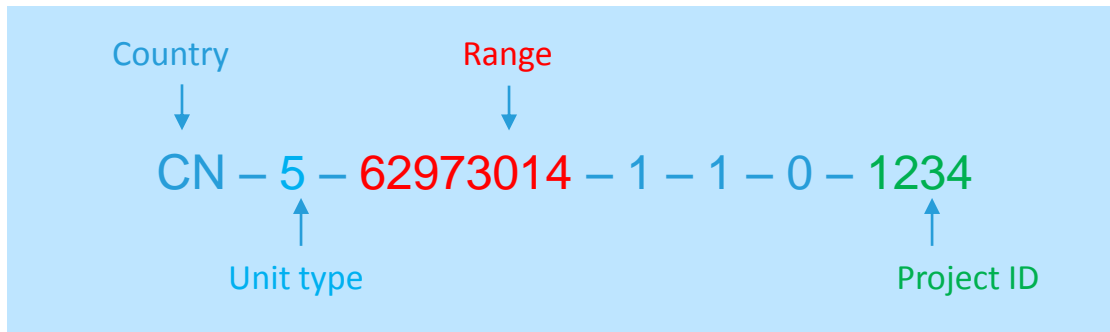
CDM Registry transaction flow





Can CERs be easily tracked

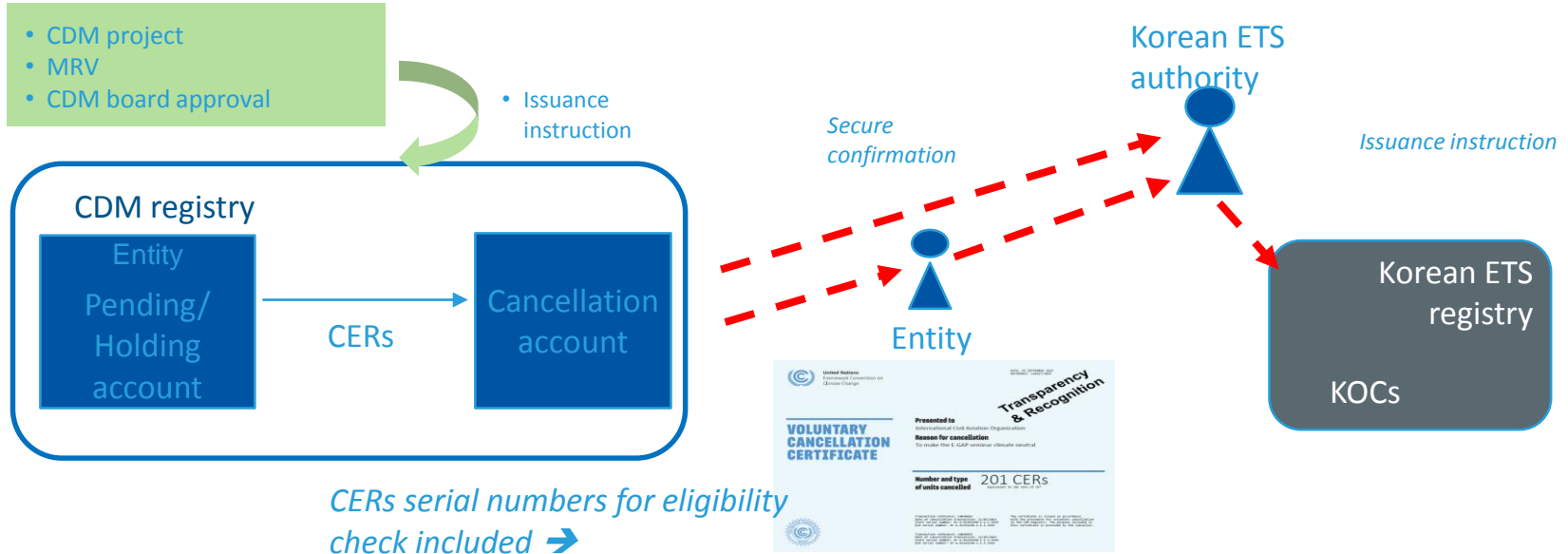
- **Originating project, Methodology** : Directly from project id
- **Start date** (= CDM commission date): Through project id and first issuance
- **Period of ER: In CDM period of ER is not annual and is tracked indirectly through serial range!**
Uniform blocks of CERs are issued for monitoring periods (not years!)
- Entities **cannot** see serial range number in the national KP registries and EU ETS registry. Administrators can.
- Straddling of calendar years, depending on the requirements, the PP can created monitoring periods.





Model 1 RE-ISSUANCE of cancelled CERs as KOC for the Korean ETS

- No hierarchy of compliance targets
- Non-integrated systems
- Reissuance process through cancellation

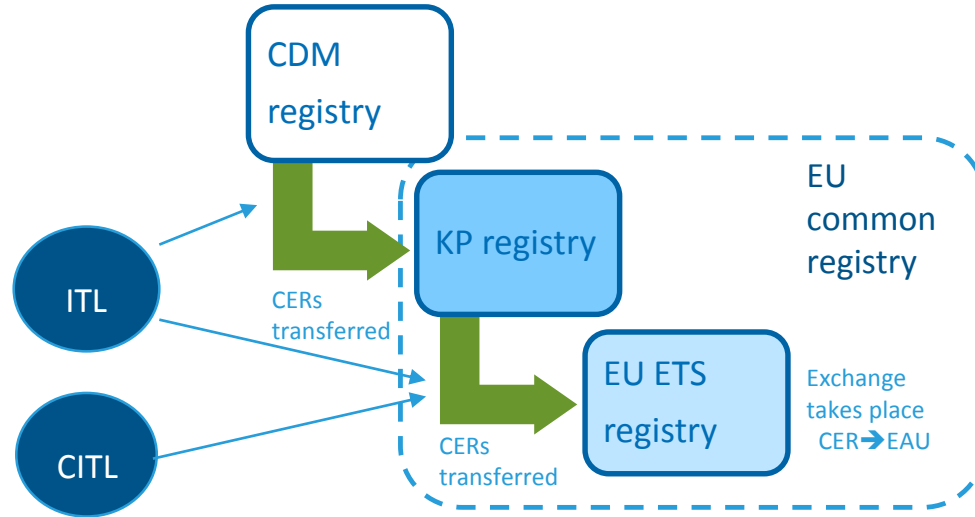




Creation of units on the basis of CERs

Model 2 EXCHANGE of CERs for EAUs in EU ETS

- Hierarchy of compliance targets (national/international)
- Integrated registry infrastructure for tracking CERs and EAUs
- Exchange process without cancellation (destruction):



Resulting EAUs used in EU ETS; CERs used by MS for Kyoto compliance

Benefits of the UNFCCC mechanism



Up and running: No lead time /upfront cost to establish new programmes
Existing infrastructure, projects and units, ready to supply



Twelve years of experience (project, regulatory framework, etc.)



No need to reinvent the wheel: Any scheme for mitigation action will face similar challenges (assessment; quantification; consistency; transparency; comparability etc.)



Strong Fungibility – used by parties, MDB, Sub-national, business, individuals etc..
(comparability, scale, access)



Largest pipeline of projects and programmes at different stages (registered and/or implemented or not)

Benefits of the UNFCCC mechanism



Scalable: Demonstrated ability to register 3,300 projects per year (worth 3.6 Gt in emission cuts over 10 years).



Buyers/Users free to set own criteria: (quantitative /qualitative criteria)



Existing pool of expertise built over the years – and which can be easily scaled-up again



Accessible to all:

The voluntary cancellation procedure allows all types of stakeholders to use the CDM:



Benefits of the UNFCCC mechanism



International oversight under UNFCCC which can be trusted by third parties and which can be used and further developed multilaterally

(avoids bias of standards set by funder or seller)

- Strong international recognition
- Best positioned to tackle double counting under UNFCCC
- Nationally authorized - Approved both nationally and internationally.
- Independent third party assessment.
- Highest geographical coverage by any scheme
- The mechanism has the **supply**, the **technical systems**, offers **unrestricted access** and **flexibility** to users
- The mechanism can be used for **both compliance and non-compliance purposes** (NDC, MRV of climate finance, green bonds etc.)



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(MID) Office
Cairo

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Southern African
(ESAF) Office
Nairobi

Asia and Pacific
(APAC) Sub-office
Beijing

Asia and Pacific
(APAC) Office
Bangkok



THANK YOU