



Role of the private sector in accelerating carbon markets

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Agenda

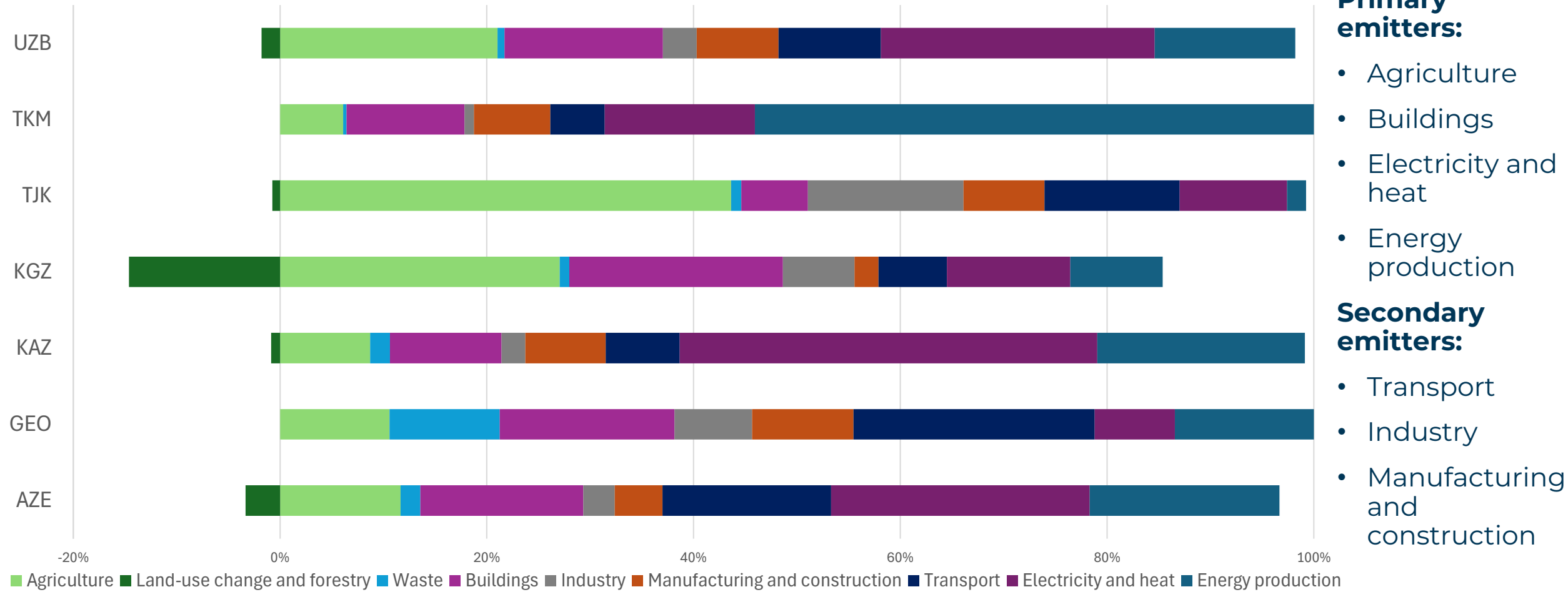
- Overview of emissions in Central Asia
- Carbon Market Cycle and its cost
- Financing options
- Role of consultants
- Considerations for CAREC



Overview of emissions in Central Asia

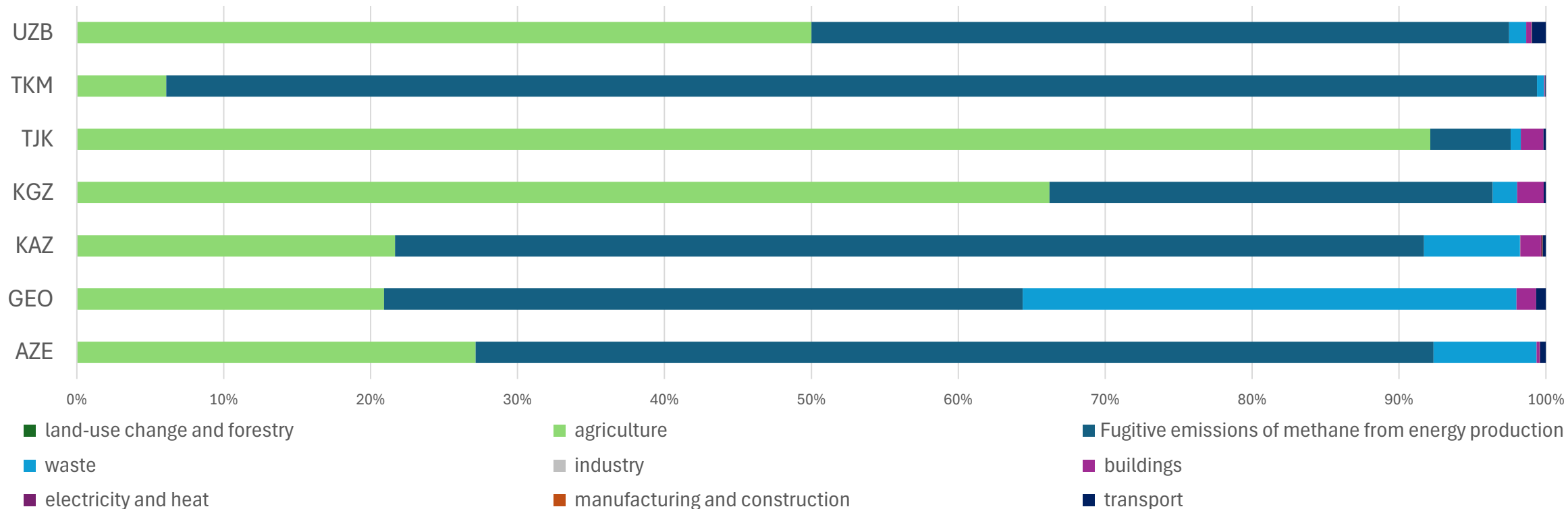
GHG emissions per sector in 2022

GHG emissions per sector in % for year 2022



Methane emissions per sector in 2022

Methane emissions per sector in % for year 2022



Primary emitters:

- Agriculture
- Energy production

Secondary emitters:

- Waste
- Buildings

Private sector project activity options

- Looking at the Primary emitters of CO2 and Methane, focus area should be on:
 - Agriculture
 - Energy production
 - Buildings
- Examples of project activities are:
 - Agri PV
 - Reducing flaring in upstream O&G operations and Leak detection and Repair (LDAR) for downstream gas distribution systems
 - Energy efficiency (isolation, green heating and cooling) in buildings
 - Renewable energy to substitute power and heat (is geothermal heating an option?)



**What can
be done**

Carbon Market Cycle

6

Carbon Market Cycle

Issuance of credits.

5

Third-party verification.

4

Project monitoring to measure GHG emission reductions or removals.

Select an appropriate methodology for the proposed project.

Development of project design document and preparation of supporting documents.

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1

Obtain host country approval and submission of documents.

2

Project validation.

Independent third-party assessment and document review.

3

Document confirmation and project registration.

Project Design

1

Validation

2

Registration

3

Certification / Issuance

6

Verification

5

Monitoring

4

1. **Applicability conditions**

- What is allowed under the methodology
- What is not allowed under the methodology

2. **Project Boundary**

- Identify project boundary and all emitting elements of the project activity

3. **Baseline scenario**

- What is the situation before implementation of the project activity

4. **Additionality**

- This project activity can only be implemented with the application of the carbon market

5. **Quantification of emission reductions or CO₂ Removals**

- $ER \text{ or Removals} = BE - PE - LE$

6. **Monitoring**

- Monitoring plan
- Data and parameters monitored

Cost of carbon market activities

Fee structure of (voluntary) carbon markets

Pre - registration

Account fee	Few 1000's US\$	yearly
Listing fee	Few 1000's US\$	once
PDD / MADD	100000 – Few 1000's US\$ 200000 US\$	Depends on complexity and requirements
Validation	0 – 50000 US\$	Depends on program
Registration fee	Few 1000's US\$	once

- Registration is to be repeated every 5-15 years depending on the program and the activity.
- This will repeat the above cost by at least half in every such period

Post - registration

Account fee	Few 1000's US\$	yearly
Monitoring report	2,000 – 20,000 US\$	Depends on complexity, requirements and use of digital MRV or 'analog' MRV and frequency of monitoring period
Verification	0 – 20000 US\$	Depends on program
Issuance fee	0,23 – 10 US\$/tCO ₂	Depends on program

- Monitoring period can range from month to 5 years depending on the project activity
- Verification needs to be done for every monitoring report delivered per monitoring period.
- Issuance fees are per tCO₂ reduced or removed.

Financing options

If the project activity implementation is dependent on carbon market revenue, the project developer needs to take the carbon market costs for pre, and post registration into consideration.

- These costs can be incorporated into selling carbon credits directly to private (corporate) buyers.
 - Bilateral agreements with private buyer and negotiated carbon credit price.
 - ➔ *Project developer to advance investment on own equity/loan. Income delayed, as carbon credits can only be sold after issuance.*
- Financial institutions, like ADB, can support with carbon market activity fees coverage for exchange of % of carbon credits (sales)
- Applying Art 6.2/JCM often the country buying the mitigation outcomes are supporting with the costs of the development of the MADD and its registration/issuance.
- (Reversed) auctions of certain domestic private sector activities, sponsored by host country / region for reduction and/or removals, while allowing for (voluntary) carbon market participation (Public – private funding)
 - ➔ *Be aware of who will then claim the CO2 reduction or removal.*

Example of B2B

Microsoft has pledged to offset all their CO2 emissions since the foundation of the company.

They do this mainly through removals

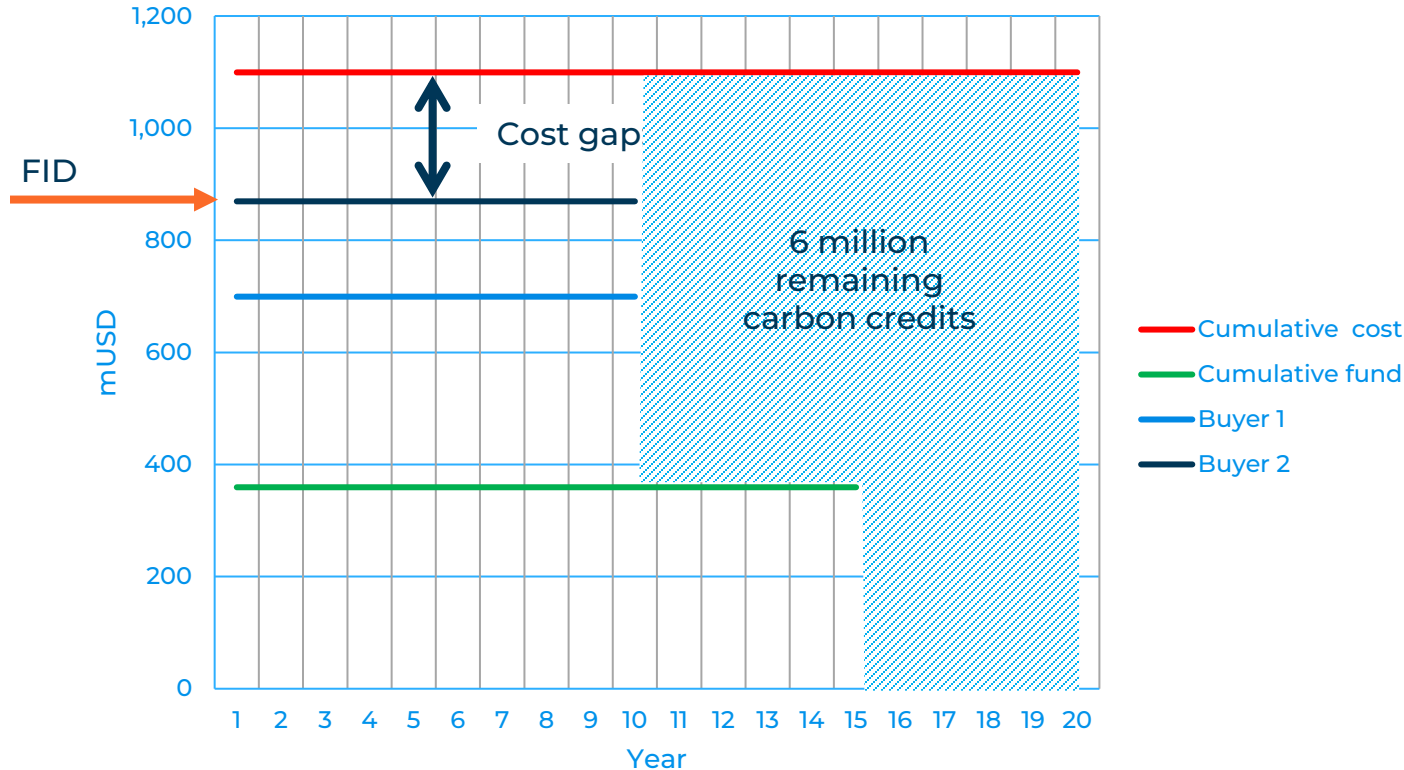
They have **bilateral agreements with project developers** that are **signed before operations start**, giving **financial security** to the project developer and **affects often an FID**

Microsoft has internal rules on **claiming** the offsets. As they have global operations, they **offset their emissions in the host country** of the project activity **to secure no double claiming with NDC and offsetting**



Microsoft

CCS – Example Public – Private financing



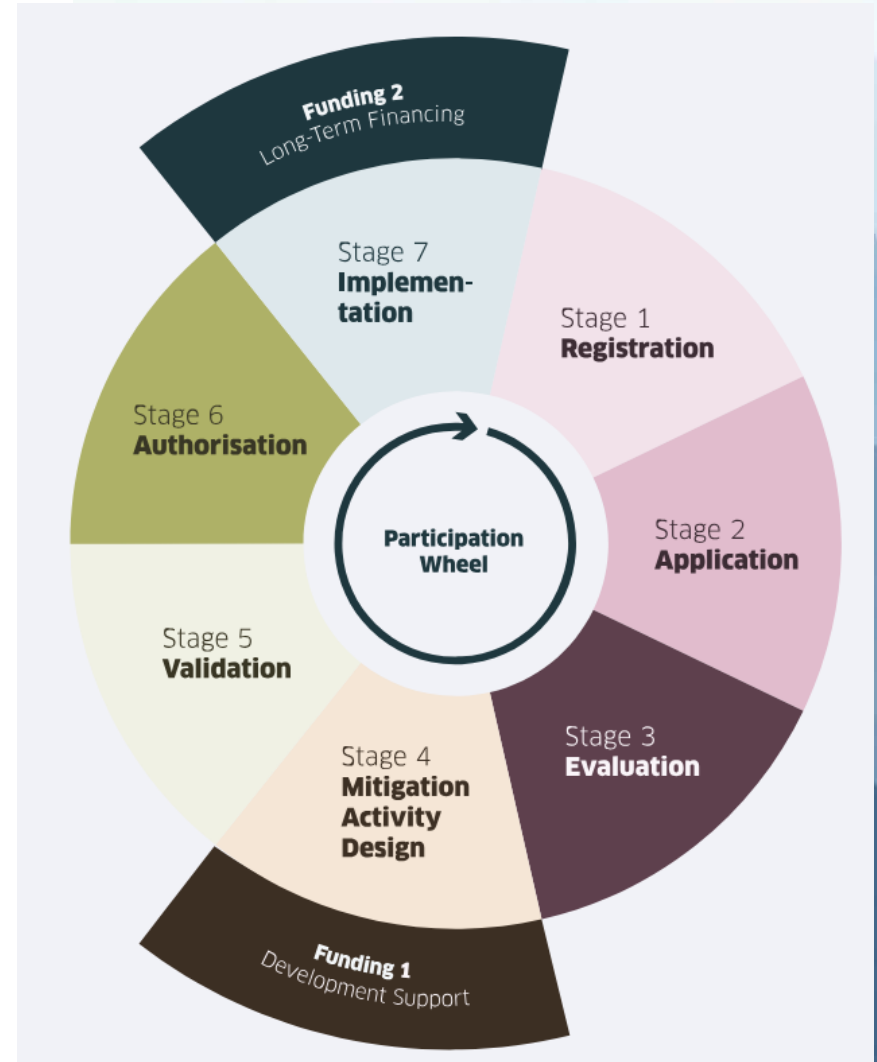
Fictive case

- BECCS project: emits 500ktCO₂/y
 - Capture efficiency 95%, lifetime 20 years
 - Baseline emissions: 475ktCO₂/y.
 - Project, leakage and fugitive emissions: 25 ktCO₂/y.
 - Available for crediting 450ktCO₂/y, totalling 9 million credits over 20 years
- Total cost CAPEX + OPEX for BECCS project over 20 years: 1.100 mUSD
- Public funding: 100 mUSD for CAPEX and 15 mUSD, inflation adjusted, for 15 years
- Buyer 1 procures 2 million credits over a period of 10 years at 170USD/tCO₂
- Buyer 2 procures 1 million credits over a period of 10 years at 170USD/tCO₂
- FID can be taken, as the remaining 6 million credits can be sold for 40 USD/tCO₂ to break even

Example of Switzerland

The [KliK Foundation](#) is the carbon offset grouping of **the Swiss motor fuel importers, mandated under the Swiss CO₂ Act** to offset parts of the carbon emissions generated by the use of motor fuels in Switzerland.

- They offer funding for the development documentation of the project activity
- They pay a contracted price for the mitigation outcomes.
- ➔ Need for registration as partner country with the Federal Office for the Environment ([FOEN](#))
- ➔ Need to follow the steps of the participation wheel stage 1-3 for the project activity to be accepted.
- ➔ KliK and FOEN develop their own requirements but do also allow for Art 6.4 methodologies when available
- ➔ Host Countries need to have transparent and well functioning registries and regulations for Authorization and generation of ITMOs



Role of carbon consultants

- Carbon consultants support project developer with (pre)-feasibility of their project activity for carbon markets (voluntary or Art 6), including:
 - Carbon market mechanisms
 - Eligibility of project activity for carbon market
 - Methodology availability
 - Estimation of emission reductions or removals of the project activity
 - Monetisation strategy
- Carbon consultants work with project developer to develop methodology
- Carbon consultants support project developer with development of their design documentation, validation and registration of their project activity (pre-registration)
- Carbon consultants support project developer with the monitoring reports and verification until issuance (post-registration)

Example of Uzbekistan

- Perspectives is in discussion with a global private sector actor in Uzbekistan
- Project activity is mainly green ammonia for fertilizer
- Project developer does not have idea about carbon markets and its opportunities
- Perspectives is to undertake a feasibility study to estimate their emission reductions and which market they can play.
- Perspectives is working with other clients on a methodology for green ammonia for fertilizers for Art6.4
- Perspectives, therefore, is seeking information of Art 6 readiness of Uzbekistan, which is discussed in this workshop the last 2 days.

Considerations for CAREC

- Capacity building on carbon market mechanism
- Identify major sectors of your economy and its emissions (preferably forward looking)
- Set up stakeholder meetings to discuss project activity types (stakeholders to be both project developers, consultants, financing bodies, and government, possibly NGO's and Research institutions)
- Identify country and regional activity types
- Decide on financing options (Public-Private), B2B, bilateral agreements with other countries (Art6.2/JCM)
 - Strategic development of countries participation and implementation of Art 6.2
- Hire consultants to support you in developing your strategies on carbon market participation



Thank you



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