



**Financing refrigerant management - including Article 6 of the Paris Agreement applicability to refrigerant recovery/reclaim/destruction**  
24 January 2024

## AGENDA

<b>Welcome Remarks</b>	Malin Emmerich, GIZ; COPA Secretariat
<b>Presentation Financing Lifecycle Refrigerant Management – Article 6 of the Paris Agreement</b>	Tilden Chao, Charlie Mayhew, Carbon Containment Lab, Yale
<b>Q&amp;A</b>	All participants



- 1. Welcome and Opening remarks**  
Malin Emmerich, GIZ, COPA Secretariat

# INTRODUCTION

## Approach

COPA works jointly with partner countries and diverse actors across private and public sectors to advance the holistic solutions needed to reduce ODS and HFC banks, and ultimately complete the shift in the cooling sector to sustainable refrigerant management.

Implemented by:



In cooperation with:



Supported by:



on the basis of a decision  
by the German Bundestag

## ODS AND HFC BANKS MANAGEMENT

*the gap*

Due to a general **lack of appropriate regulatory frameworks, financial means as well as infrastructure**, the collection, reclamation or destruction of waste containing ODS and HFC presents a major challenge.



# CLIMATE AND OZONE PROTECTION ALLIANCE (COPA)

## Activities

COPA members and partners have access to a global network of knowledge and resources, technology and financial match-making in addition to a flexible array of services. COPA is open to all countries and organisations willing to actively contribute to, and share experiences supporting, a sustainable refrigerant management, e.g., through Thematic Working Groups participation or COPA Sessions. Main COPA activities are



# COUNTRY MEMBERS

**Africa**

**Asia**



**Latin  
America  
and  
Caribbean**

# NON-COUNTRY MEMBERS



SET ALLIANCE







## 2. Financing Lifecycle Refrigerant Management – Article 6 of the Paris Agreement

Tilden Chao & Charlie Mayhew, Yale Carbon Containment Lab



# Financing Lifecycle Refrigerant Management

Article 6 of the Paris Agreement

Prepared for COPA  
24 January 2024





## About us:

We're a non-profit working on novel and neglected climate solutions. Much of our work on **lifecycle refrigerant management** focuses on **removing barriers to scale**, including working to **expand and strengthen financing mechanisms**.

We're currently housed at Yale, but are soon spinning out to become an independent non-profit.





## Framing today's talk:

We all agree that lifecycle refrigerant management is important, but we often disagree about how to pay for it.

Extended Producer  
Responsibility (EPR)

**Carbon Markets**  
(Voluntary, Compliance,  
Article 6)

**Regulations Creating  
Markets** (low-GWP,  
reclaimed gas, etc.)

## New options are emerging...

There's now a new financing option called **Article 6 of the Paris Agreement** that aims to facilitate international financing for climate projects. **How does it work? It is worth pursuing?**

Extended Producer  
Responsibility (EPR)

**Carbon Markets** (Voluntary,  
Compliance, **Article 6\***)

**Regulations Creating  
Markets** (low-GWP,  
reclaimed gas, etc.)

**GIZ has covered this topic before, but  
it's been four years!**

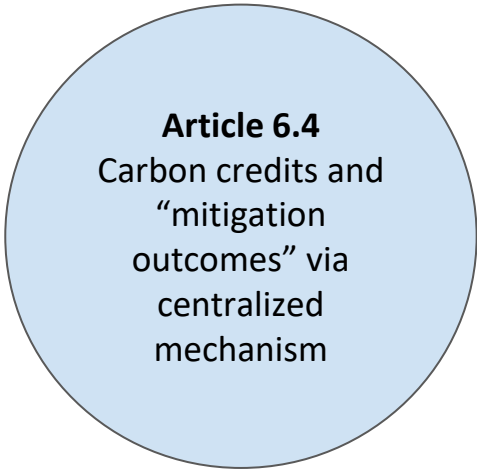


[Link to GIZ's report \(2019\)](#)

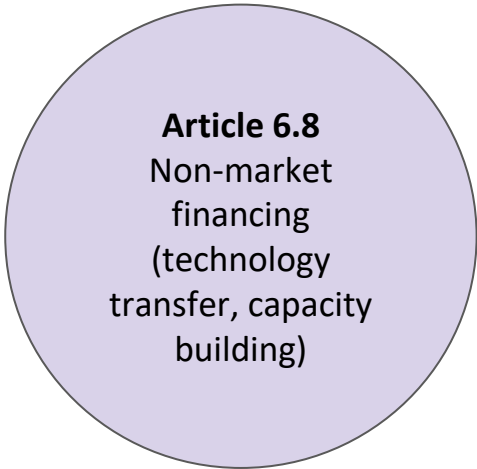
Article 6 has **three sub-parts** that mobilize international carbon finance toward meeting country Nationally Determined Contributions (NDCs).



**Article 6.2**  
Carbon credits via  
bilateral  
agreement



**Article 6.4**  
Carbon credits and  
“mitigation  
outcomes” via  
centralized  
mechanism



**Article 6.8**  
Non-market  
financing  
(technology  
transfer, capacity  
building)

Unfortunately, there hasn't been much progress on Article 6 in the last year – and **COP 28 was largely viewed as a missed opportunity.**

### Carbon credits talks collapse at Cop28 over integrity concerns

Published on 13/12/2023, 9:29am

The EU and allies rejected proposed carbon trading rules that followed a "light-touch" approach favoured by the US



## Countries Reject Proposed Guidance for Article 6

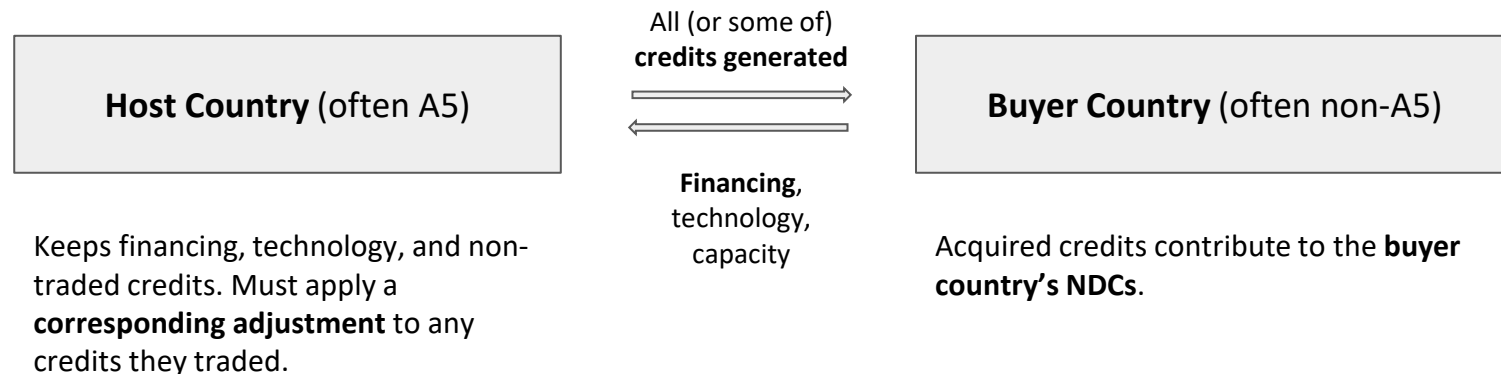
STEVE ZWICK

After more than 12 hours of closed-door negotiations, countries rejected the Article 6 guidance that emerged late in the evening of 12 December 2023

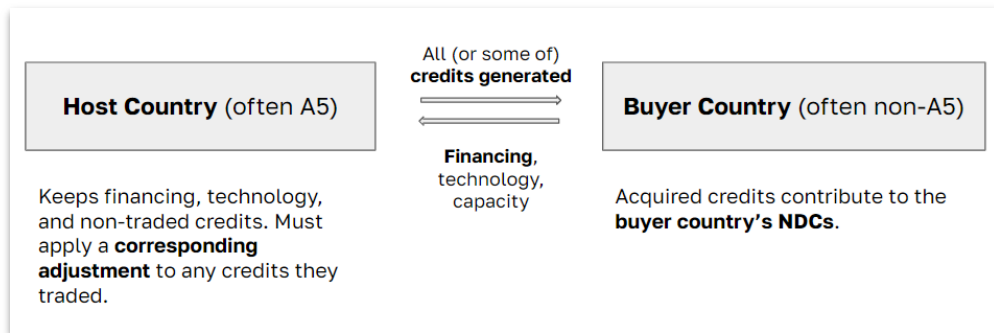
**12 December 2023 | DUBAI** | Countries have rejected the latest guidance on operationalizing Articles 6.2 and 6.4 of the Paris Agreement.



**Article 6.2** is currently the most operational, but also the most controversial.



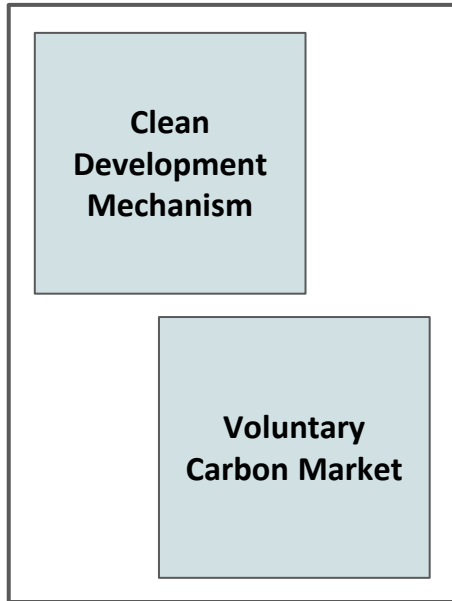
We think that Article 6.2 could have an **oversight problem**, especially for refrigerant mitigation projects. The market **needs a referee**.



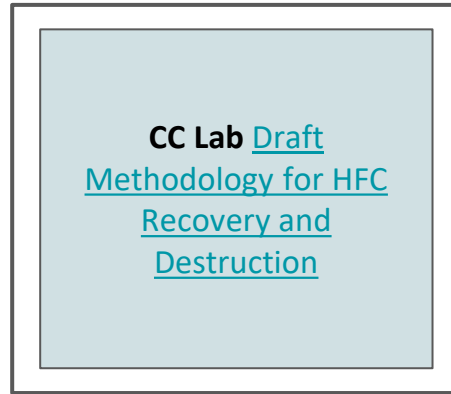
- **As long as the host and buyer countries agree on project methodologies, those projects can proceed**
- Much less technical expertise on refrigerants in the UNFCCC ecosystem



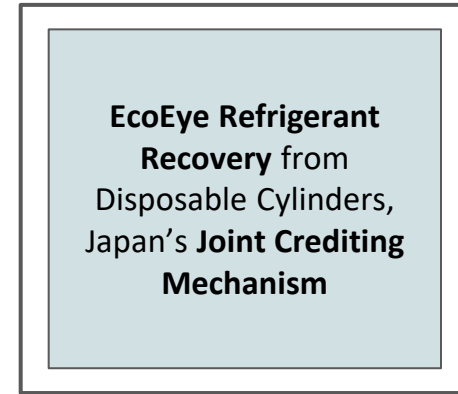
Existing



Non-Registry/Adapted



“New” Methodologies



**Virtuous cycle or “bad movie” scenario?**

So far, Japan's **Joint Crediting Mechanism** has been a leader in developing HFC and ODS destruction projects, in a similar way to Article 6.2 (see [HFC destruction in Vietnam](#))



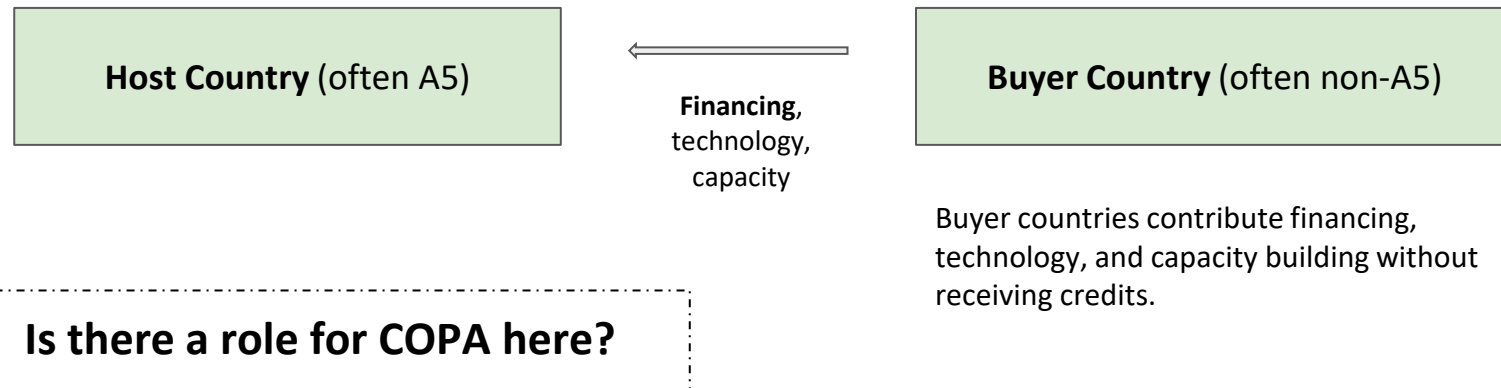
**Positives:**

- Japan and the host country share credits generated
- Uses discount factors to ensure net emissions reductions

**Negatives:**

- No specificity about HFC source eligibility
- Unclear approval status
- Some projects that we've heard about don't have documentation

Although much of the UNFCCC's negotiations have centered around the credit trading aspect of Article 6, there are also **structures for non-market finance**.





## Operationalizing **Article 6** faces several challenges:

- Ensuring uptake of high-quality methodologies, and rapid identification of low-integrity ones
- Guidance on corresponding adjustments for gases outside NDCs, such as ODS (always) and HFCs (in some cases)
- Development of refrigerant inventories to set accurate emissions baselines
- Matching host countries, buyer countries, project developers, and technical and market expertise



# Thank you!

Any questions?

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[carboncontainmentlab.org/projects/refrigerants](https://carboncontainmentlab.org/projects/refrigerants)





Some refrigerant projects on Article 6 are already underway.  
**What role can COPA and its members play in ensuring project quality and integrity?**





Article 6's sub-parts all have distinct features. **What role, if at all, could Article 6 play in financing lifecycle refrigerant management?**



Questions?



Thank you for your attention!



### 3. Q&A All participants

## **COPA MATERIALS ONLINE – PUBLICATIONS, RESOURCES AND NEWS**

- **COPA Financing and Fundraising Mechanism: A Review and Concept**
- **Report & Excel tool:**  
Using carbon markets to reduce emissions from end-of-life refrigerants and foam blowing agents
- **Webinar and COPA Guideline – ODS/HFC banks Inventory Methodology**  
To conduct an inventory of used or unwanted controlled substances: ODS and HFC banks
- **COPA study on Policy Framework**  
promoting sustainable ODS/HFC management
- **COPA study on Technology**  
ODS/HFC Reclamation and Destruction Technologies



# CLIMATE AND OZONE PROTECTION ALLIANCE (COPA)

## *Thematic Working Groups (TWG)*

Together with our partners and members, we are working on the following topics in dedicated  
**THEMATIC  
WORKING GROUPS**



### Policy Framework

For an effective management of refrigerants and foams at end-of-life, **suitable policy measures are required** like venting bans or mandatory recovery



### Technology Solutions

Working towards the **best technical solutions** for ODS and HFC recovery, reclamation and destruction



### Financing Mechanism

Developing financial mechanisms for sustainable GHG mitigation measures in ODS and HFC banks.



### Implementation Models

**Putting theory into practice** and demonstrating how sustainable refrigerant management can be implemented

## BECOME A MEMBER

Find more Information on our [Website](#)



Members gain access to a global network of knowledge and resources

Match-making between actors will be enabled and a flexible array of services provided.

The network will amplify the reach of actors and enhance the impact of activities in the field of ODS and HFC banks management.

COPA is open to all countries and organisations, willing to support the global shift to sustainable refrigerant management and closing the loop to a circular economy in the cooling sector.

**Join COPA and become a member**

## CONTACT



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**THANK YOU FOR YOUR PARTICIPATION**