COPA
Cutting refrigerant emissions

COPA 2nd Plenary Meeting

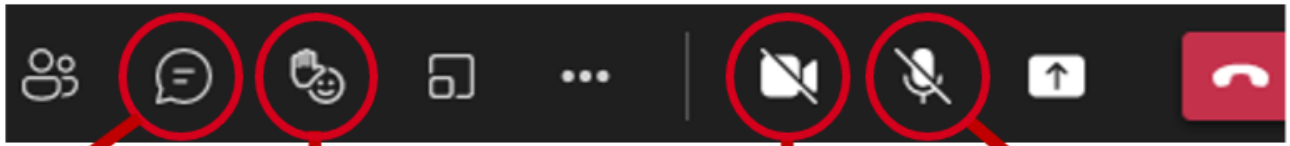
18-19 June 2024

COPA
Cutting refrigerant emissions

1. COPA Plenary Day 2 -19 June 2024

Moderator Malin Emmerich, GIZ, COPA Secretariat

GROUND RULES FOR ONLINE SESSIONS



Use the chat for your questions.

You can use this feature for reactions or for raising your virtual hand.

If the connection allows it, please turn on your video when you speak

For best audio quality, please stay muted.

- Please **use headphones** or **earphones** in order to prevent echoing-effects

COPA
Cutting refrigerant emissions

Session 1

8 am-8.30 pm (CEST)

- Agenda
- Welcoming: Nicole Wilke, BMWK
- Steering Committee & Secretariat
- TWG Reports
- COPA Celebrates

AGENDAS (CEST)

Day 1 – 18th June

14:00	**Plenary Opening**			
(CEST)	Welcoming	The Federal Ministry for Economic Affairs and Climate Action		
		Steering Committee		
	COPA celebrates with members			
	Thematic Working Groups reports	Coordinators of Thematic Working Group		
15:30	**Break**			
	Parallel sessions			
15:45	**COPA Positions** *(stay in MS teams link)*		**COPA meets** *(switch to this MS teams link)*	
	Position Paper "COPA Safeguards"	I. Papst (Steering Committee)	Networking Session	
	Position Paper "COPA Position on HFO"	A. Bukmanis (Steering Committee)		
	Position Paper "COPA Position on Carbon Credits as financing source for management of ODS / HFC bank management activities"	T. Nickson (Steering Committee)		
16:45	**Break**			
	Parallel sessions			
17:00	**COPA learns: Best Practice from Grenada and Mexico** *(stay in MS teams link)*		**COPA looks ahead** *(switch to this MS teams link)*	
	How to establish a refrigerant recovery and recycling centre?	L. Smith (NOU Grenada) (tbc)	How to make COPA a sustainable and lasting Alliance?	COPA Steering Committee and Secretariat
	Country experience: Mexico	S. Merino (NOU Mexico)		
17:45	**Wrap Up & Closing of Day 1**			

Day 2 – 19th June

8:00	**Welcoming**			
(CEST)	Recap Day 1			
	Welcoming	The Federal Ministry for Economic Affairs and Climate Action		
	COPA celebrates with members			
	Parallel sessions			
8:30	**COPA learns: Carbon Markets** *(stay in* MS teams link*)*		**COPA meets** *(switch to this* MS teams link*)*	
	Experiences, Methodologies and national frameworks	H. Salway (Gold Standard)	Networking Session	
		G. Keotsene, B. Gopolang (NOU Botswana)		
9:30	**Break**			
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11:45	**Wrap Up of 2nd Plenary Meeting & Closing**			

COPA
Cutting refrigerant emissions

1. Welcoming Remarks

Nicole Wilke,
German Federal Ministry for Economic Affairs and Climate Action

COPA
Cutting refrigerant emissions

2. COPA Celebrates Achievements
Experiences and Highlights

COPA HIGHLIGHTS JUNE 2023 – JUNE 2024

What is your favourite COPA Memory?
Please share with us. ☺

COPA HIGHLIGHTS JUNE 2023 – JUNE 2024

https://youtu.be/3rI3zA3UCo8

COPA
Cutting refrigerant emissions

Session 2

8.30 am-9.30 am
(CEST)

Graphic Recording

COPA Learns

COPA Meets
"Parallel session"

AGENDAS (CEST)

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11:45	**Wrap Up of 2nd Plenary Meeting & Closing**			

COPA Learns in Main room (here)

- Carbon Market Experiences
- Gold Standard
- Botswana country experience

COPA Networking Session in Breakout rooms

- ✓ Random exchanges of members in breakout rooms
- ✓ Click ***MS Team-link in Chat*** or in the Agenda to join

COPA LEARNS: CARBON MARKETS

There are 3 core aspects to the carbon markets today:

- **The mandatory or compliance markets**
  trade government issued/permitted emissions allowances within a structured market;
- **Sovereign carbon markets**
  national level for emissions reduction and removal
- **Voluntary carbon markets (VCMs)**
  trade credits based on carbon offsets for emissions avoidance, reduction or removal on a voluntary basis.

Carbon Markets:

- ✓ Trading of Carbon Credits
- ✓ 1 Carbon Credit is equivalent of one ton CO2 = CO2eq

COPA Learns Carbon Credits, also see recordings of:

- ✓ COPA Webinars
- ✓ COPA 101 Series – Fundamentals of Financing Mechanisms: Session 1

Gold Standard®

19 June 2024

Hugh Salway, Senior Director, Gold Standard

GOLD STANDARD

Gold Standard works to deliver the **greatest impact** for climate security and the Global Goals.

- Founded by WWF and other NGOs in 2003
- Swiss non-profit headquartered in Geneva
- Endorsed by broad NGO Supporter Network

350+
Project developers

3500+
Projects in 100+ countries

321M+
Tonnes of CO2e reduced

$50.3 Billion
Dollars of shared value created

WHAT DOES GOLD STANDARD MEAN?

Stakeholder inclusivity

- All relevant stakeholders must be consulted directly before the project starts
- All relevant stakeholders have a formal channel to engage with the project throughout its lifecycle

Holistic impacts linked to SDGs

- All projects and impacts claimed are against a business-as-usual baseline.
- Impacts must target a minimum of 3 SDGs, one of which must be SDG 13 (Tackling Climate Change)

Rigorous project safeguards to avoid unintended negative effects

- projects must comply with sector specific safeguards throughout its lifecycle

Real outcomes

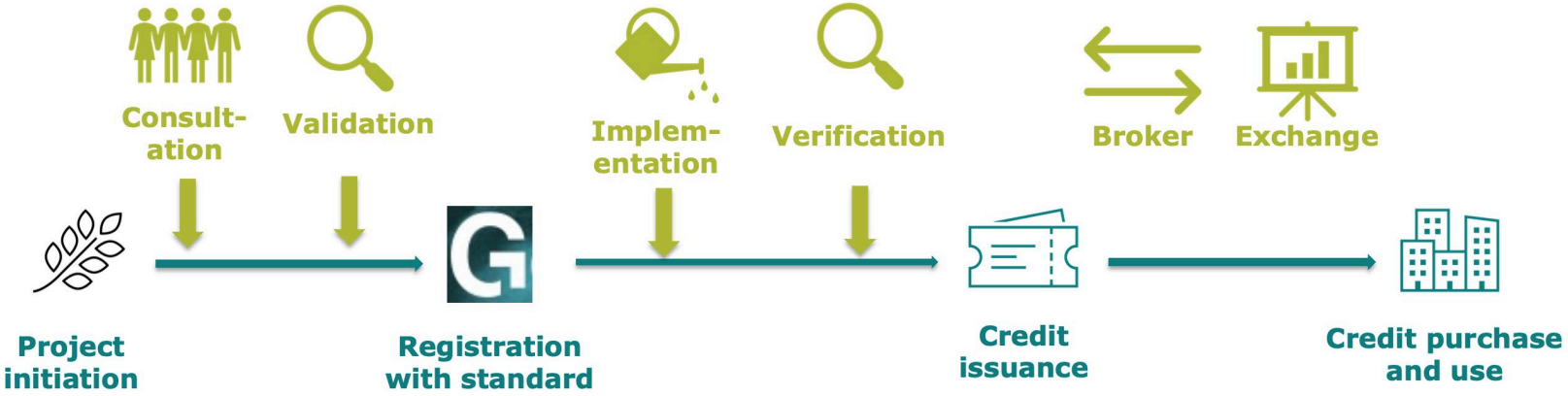
- Assurance by an independent auditor (a GS Validation and Verification Body (VVB)

Table 1: **Comparison of provisions on environmental and social safeguards**

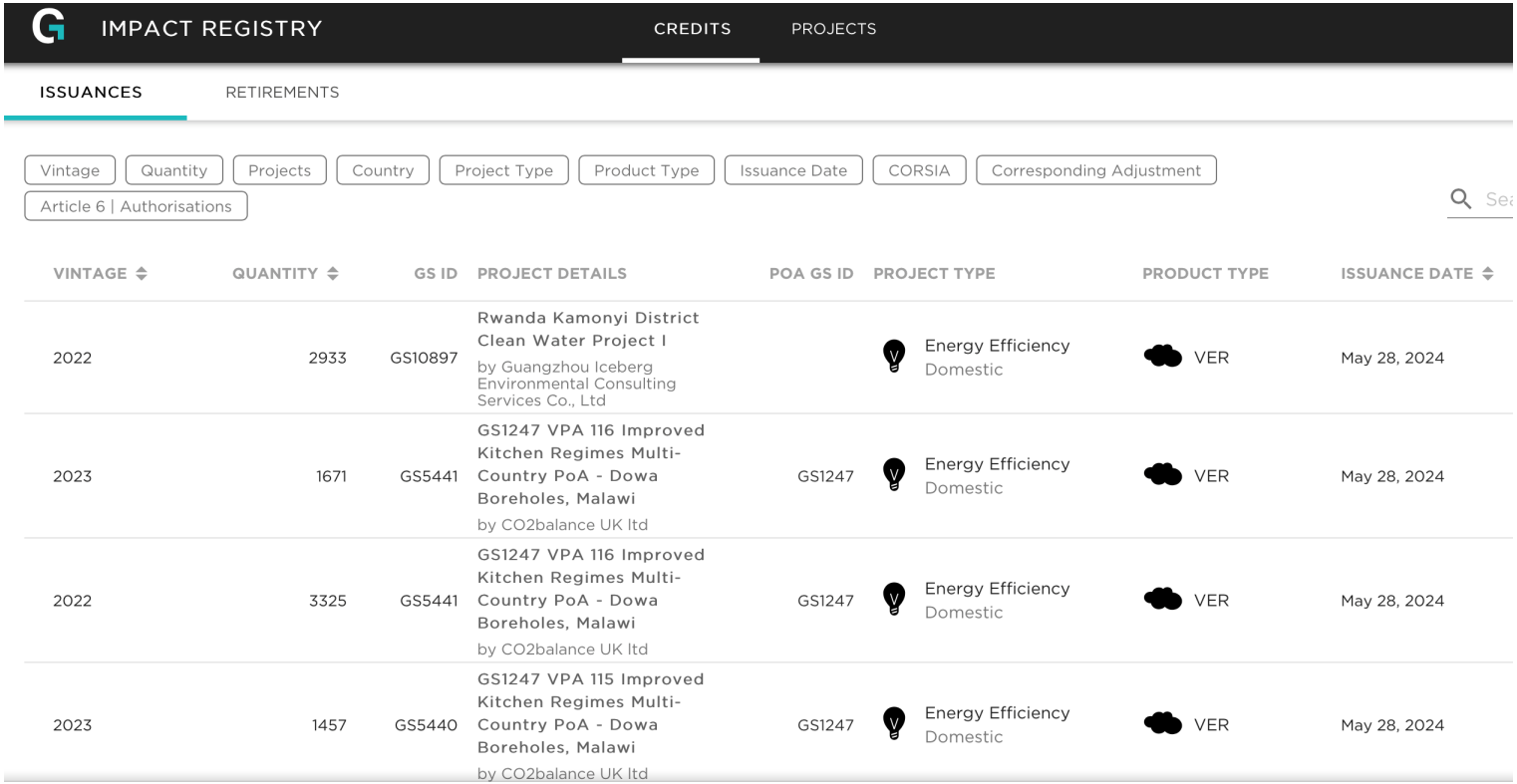
No.	Criterion	CDM	GS	VCS	SD VISta	CCBS
1	**Identification and mitigation of negative impacts:** Does the program or standard require project owners to identify potential negative environmental and social impacts, including any likely risks to local and affected stakeholders, and to mitigate them?	● except for A/R projects	●	●	●	●
2	**Monitoring impacts:** Does the program or standard require the monitoring of potential negative environmental and social impacts on an ongoing basis?	●	●	●	●	●
3	**Third party validation:** Does the program or standard require that the evaluation of environmental and social impacts by the project owners is validated by a third party prior to project registration?	●	●	●	●	●
4	**Grievance:** Does the program or standard have a grievance mechanism in place?	●	●	●	●	●
5	**Timing of stakeholder consultations:** Does the program or standard require that global and local stakeholder consultations are conducted prior to project implementation?	● depends[11]	● global & local	● global & local	● global & local	●
6	**Specific safeguards:** Does the program or standard have specific safeguards in place, e.g. in relation to cultural heritage, health, labour rights, indigenous people, environmental hazards?	●	●	●	●	●
7	**Displacement:** Does the program or standard have provisions to avoid physical and economic displacement or to ensure that any displacement is managed through appropriate forms of legal protection and compensation?	●	●	●	●	●
8	**Consent of indigenous, tribal or traditional people:** Does the program or standard require free, prior and informed consent if indigenous, tribal or traditional people are directly affected by a project?	●	●	● only for property rights	● only for property rights	● only for property rights
9	**Gender policy:** Does the program or standard have a dedicated gender policy?	●	●	●	●	●

Oeko Institute (2022) Ensuring safeguards and assessing sustainable development impacts in the voluntary carbon market

PROJECT LIFECYCLE



CREDITS ISSUED ONTO A PUBLIC REGISTRY…



...WHERE THEY CAN BE TRANSFERRED AND RETIRED

IMPACT REGISTRY

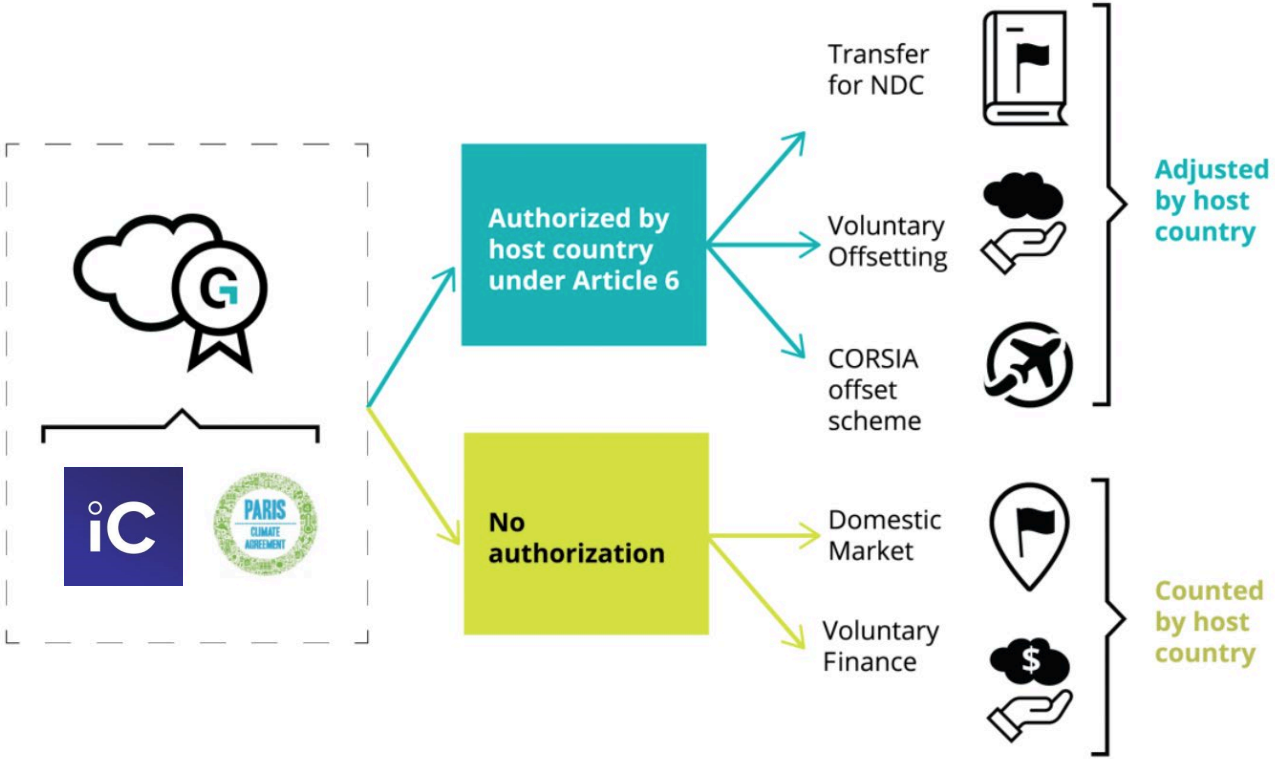
CREDITS | PROJECTS

ISSUANCES | RETIREMENTS

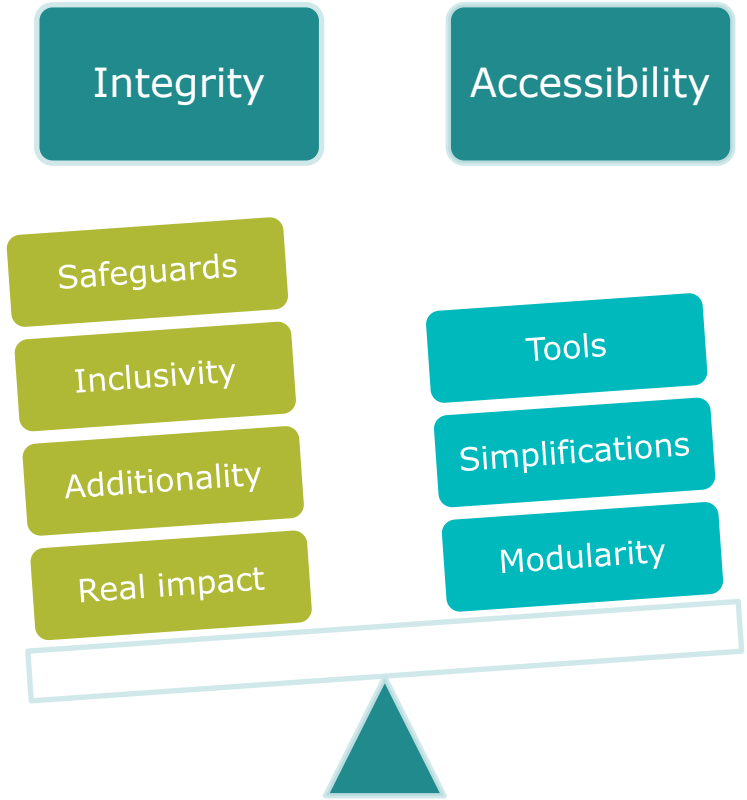
Vintage | Status | Quantity | Projects | Country | Project Type | Product Type | Issuance Date | Retirement Date | CORSIA | Corresponding Adjustment | Use Case

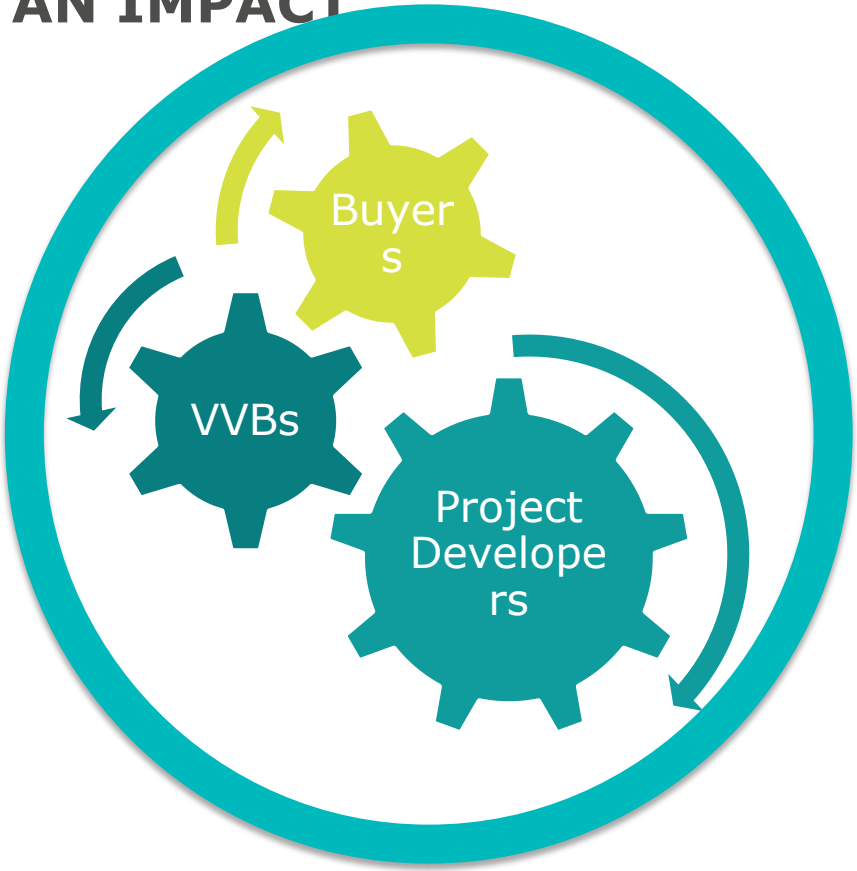
VINTAGE	STATUS	QUANTITY	GS ID	PROJECT DETAILS	POA GS ID	COUNTRY	PROJECT TYPE
2022	Retired	97	GS3564	GS1247 VPA 35 Improved Kitchen Regimes: Kaliro Safe Water Project by CO2balance UK ltd	GS1247	Uganda	Energy Efficiency Domestic
2022	Retired	133	GS4614	Solar Water Heater Program In India-CPA-3 by Nuetech Solar Systems Private Limited	GS3378	India	Solar Thermal Heat
2022	Retired	228	GS4614	Solar Water Heater Program In India-CPA-3 by Nuetech Solar Systems Private Limited	GS3378	India	Solar Thermal Heat
2022	Retired	1862	GS4614	Solar Water Heater Program In India-CPA-3 by Nuetech Solar Systems Private Limited	GS3378	India	Solar Thermal Heat
2022	Retired	294	GS4614	Solar Water Heater Program In India-CPA-3 by Nuetech Solar Systems Private Limited	GS3378	India	Solar Thermal Heat

ONE STANDARD, USED FOR DIFFERENT PURPOSES



A BALANCING ACT – HAVING AN IMPACT





GROWING MARKET, GROWING REQUIREMENTS

International

Demand-side

Supply-side

VOLUNTARY CARBON MARKET

Market-led

THE USE OF CREDITS MATTERS AS MUCH AS THEIR QUALITY

Initial framework for organisational climate mitigation strategies

Guidance on credible, holistic climate action by organisations, drawing on global best practice

Considerations for credible claims

Guidance on credible public claims related to organisational targets and actions for climate mitigation

Funding Beyond Value Chain Mitigation

Guidance on good practice approaches to take responsibility for unabated GHG emissions

DO YOU HAVE QUESTIONS?

THANK YOU!

Hugh.salway@goldstandard.org

BALISI GOPOLANG
BOTSWANA

DO YOU HAVE QUESTIONS?

Welcome Back Networkers!!

Question:
From how many different countries does COPA members come from?
We mean ALL members, across all sectors and member groups.

Please write your answer in the chat.

COPA
Cutting refrigerant emissions

Break

9.30-9.45 am (CEST)

to be followed by
Session 3: **COPA Learns Best Practice from Ghana**
Parallel Session: **COPA Looks ahead - Sustainability**
9.45-10.30 am (CEST)

COPA
Cutting refrigerant emissions

Session 3

9.45 am-10.30 am
(CEST)

COPA Learns Ghana

COPA Looks ahead
"Parallel session"

AGENDAS (CEST)

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11:45	**Wrap Up of 2nd Plenary Meeting & Closing**		

COPA Learns – Best Practices in Main room (here)

- Ghana country experience

COPA Looks ahead in (parallel session)

- ✓ A vision session on how COPA can become a sustainable and lasting alliance
- ✓ Click ***MS Team-link in Chat*** or in the Agenda to join

COPA
Cutting refrigerant emissions

3. COPA Learns – Ghana Experiences

Moderator Juliette Noppe, GIZ, COPA Secretariat

COLLECTION, RECYCLING & DESTRUCTION OF COOLING APPLIANCES IN GHANA

Cost-Benefit Analysis of RAC Reverse Logistics

19.6.2024, J. Carbajosa

AGENDA

1. Introduction
2. Overview
3. Put-on-Market
4. Waste Generation
5. Eco-Levy
6. Material Value
7. Cost/Benefit Analysis
8. RAC Waste Collection & Recycling Framework
9. Treatment & Disposal
10. Proposal 1: Take-back via Repair Shops
11. Proposal 2: Incentive Program
12. Proposal 3: Mandatory One-old-for-new-one

INTRODUCTION

Mission

- **Evaluate reverse logistics systems for EOL cooling appliances and propose a cost effective model that minimises emissions of refrigerants throughout the recycling - disposal value chain.**

Goals

- Evaluate and challenge current models and proposals.
- Identify operational, legal and capacity gaps.
- Develop the foundation for an effective and efficient mechanism to reduce emissions from EOL cooling appliances.

OVERVIEW

Table 1: Country Profile (2022)	
Number of Households	8,534,953
People/Household	4
Electricity coverage (%)	89%
Households with electricity	7,570,404
Households with fridges (%)	102
Households with AC (%)	27

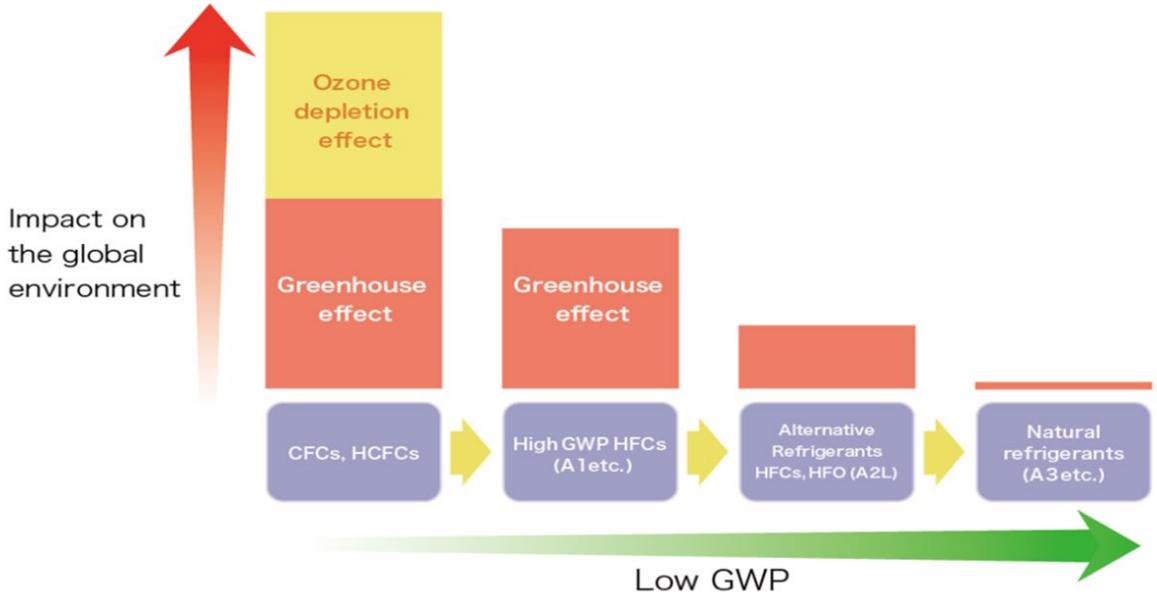
OVERVIEW

Table 2: Types of Refrigerants	
Chemical	GWP
CFC-12	***10,900***
HFC-134a	1,430
HFC-410A	2,088
R-32	675
R-441A	<5
HFO-1234yf	4
Propane (R-290)	3.3
Isobutane (R-600a)	3

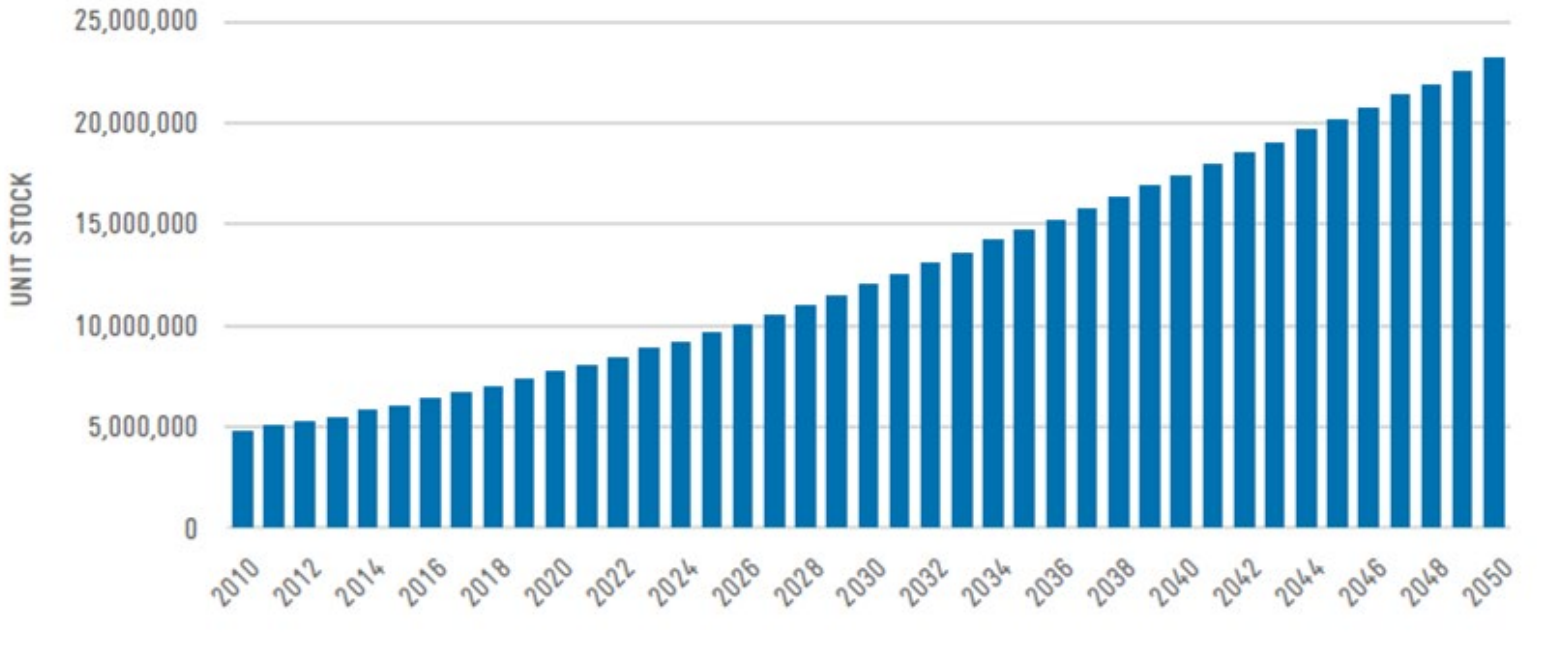
OVERVIEW

Table 3: Types of Blowing Agent	
Chemical	GWP
CFC-11	***4,750***
HCFC-142b	***2,310***
HCFC-22	***1,810***
HFC-134a	1,430
HFC-245fa	1,030
HFC-365mfc	794
Cyclopentane	<10
Isopentane	<10

OVERVIEW

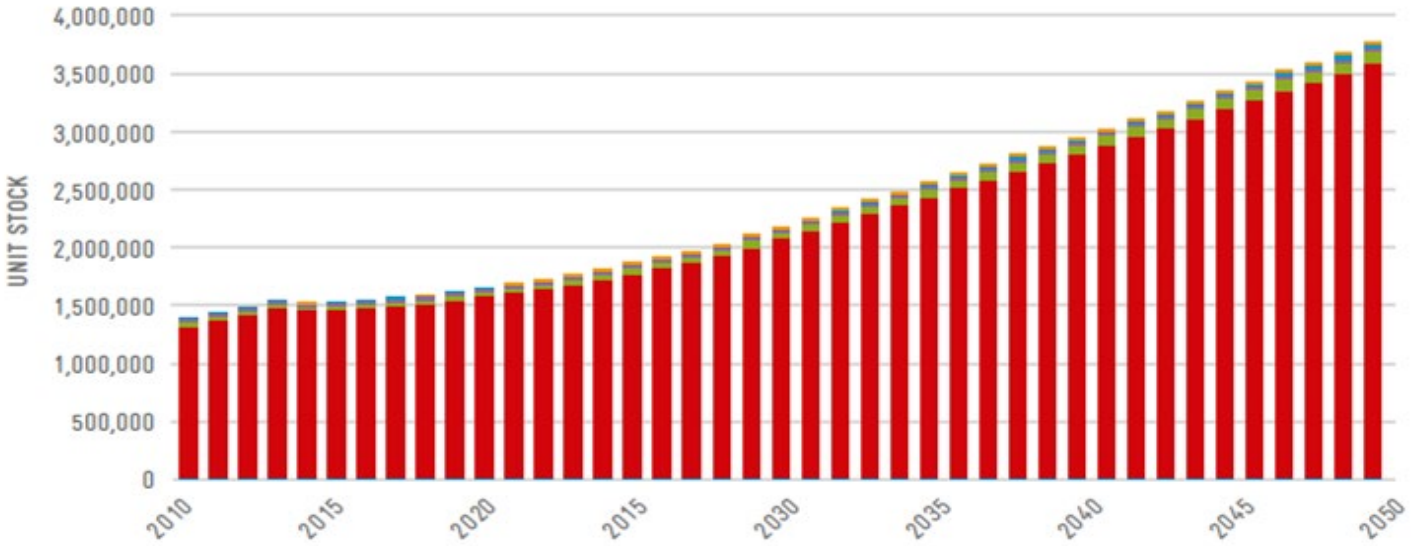


3. Put on market



Source: Ghana's Greenhouse Gas Inventory and Technology Gap Analysis for the Refrigeration and Air Conditioning Sector, 2018.

Put on market



Source: Ghana's Greenhouse Gas Inventory and Technology Gap Analysis for the Refrigeration and Air Conditioning Sector, 2018.

Put on market (POM)

Table 4: Refrigerators put-on-market in Ghana (kgs) - UN Comtrade					
Type	2019	2020	2021	2022	2023
H/H refrigerators	10,973,166	0	18,140,330	8,594,536	10,523,167
H/H freezers	7,391,916	0	581,922	4,625,420	4,411,677
Prof. refrigeration	1,395,193	0	1,611,555	2,564,029	1,675,494
Domestic A/C	9,677,134	0	10,668,676	8,602,210	9,107,567
Prof. A/C	229,017	0	75,375	386,931	249,355

Put on market (POM)

Table 5: POM - Average per Year (2019-2023)		
Type	μ kgs	μ units
H/H refrigerators	9,646,240	235,274
H/H freezers	3,402,187	85,055
Prof. refrigeration	1,449,254	25,426
Domestic A/C	7,611,117	178,038

Put on market (POM)

Table 6: Discrepancies btw projections & imports		
Type	Projections µ units	Import Data
H/H Refrigerators	597,851	320,329
H/H Air Cond.	125,618	178,038

4. Waste generation

Table 7: E-waste generated in Ghana		
E-Waste generated (million kgs)	E-waste generated (kg/capita)	E-waste formally collected & recycled
72	2.2	N/A

Source: The Global E-Waste Monitor, 2024

4. Waste generation

Table 8: Household RAC Waste Generation			
Type	μ kgs	μ units	Kg / capita
H/H refrigerators & freezers	8,481,477	208,214	0.25
Prof, refrigeration	942,015	16,527	0.03
Domestic A/C	4,947,226	115,725	0.15

5. Eco-levy

Table 9: Eco-levy collection per year (average)			
Type	Fee (US$)	µ units	Total
H/H refrigerators	8.50	235,274	1,999,830.19
H/H freezers	8.50	85,055	722,964.76
Prof. refrigeration	8.50	25,426	216,116.86
Domestic A/C	8.50	178,038	1,513,321.58
		TOTAL RAC	4,452,233.40

5. Eco-levy

Table 10: Percentage of Eco-levy over sell-in price				
Type	**μ weight (kg)**	USD/ kg	USD/ unit	Eco-levy %
H/H refrigerators	41.01	1.8	73.81	11.52
H/H freezers	40.00	2.5	100.01	8.50
Prof. refrigeration	56.96	3.7	210.76	4.03
Domestic A/C	42.75	2.3	98.32	8.65

5. Eco-levy

Table 10: Percentage of Eco-levy over sell-in price				
Type	**μ weight (kg)**	USD/ kg	USD/ unit	Eco-levy %
H/H refrigerators	41.01	1.8	73.81	11.52
H/H freezers	40.00	2.5	100.01	8.50
Prof. refrigeration	56.96	3.7	210.76	4.03
Domestic A/C	42.75	2.3	98.32	8.65

6. Material value

Table 11: Material Value of RAC (%)					
Type	Cu	Al	Fe	Refrig.	PS
H/H refrigerators	1.22%	2.50%	58.60%	0.37%	4.60%
Prof. refrigeration	1.22%	2.50%	58.60%	0.37%	4.60%
Domestic A/C	11.96%	7.68%	62.92%	0.37%	0,00

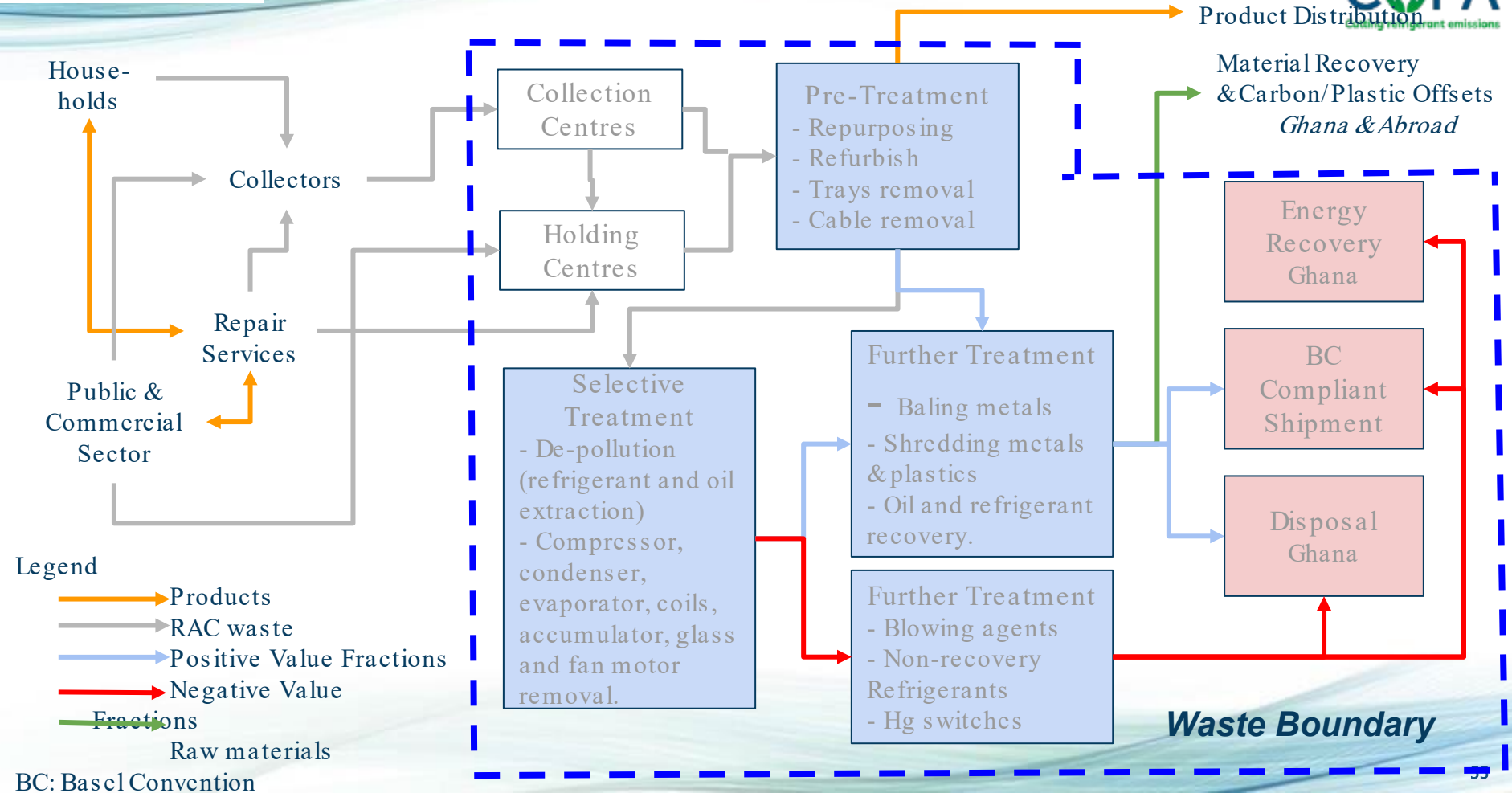
7. Cost-Benefit Analysis

Table 12: Revenues at current prices (USD)				
Type	Eco-levy	Sale of Metals	Sale of Plastics	Carbon Offsets
H/H refrigerators	2,722,795	2,979,062	112,675	107,702
Prof. refrigeration	216,117	330,876	12,519	11.962
Domestic A/C	1,513,322	7,904,866	0	2,241,568
Total	4,452,233	11,214,804	125,194	2,361,232

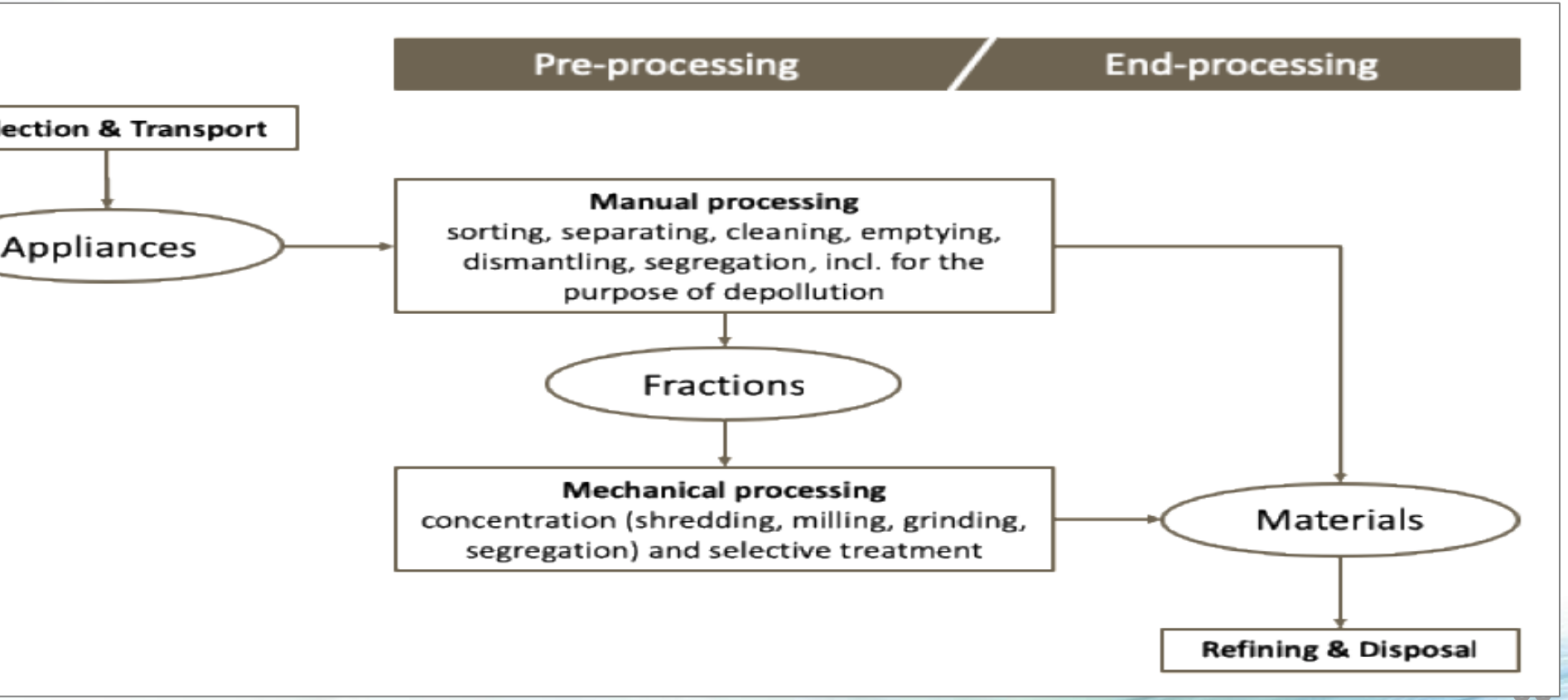
7. Cost-Benefit Analysis

Table 12: Operational Costs			
Type	Transport	Treatment	Disposal
H/H refrigerators & freezers	848,148	1,017,777	203,555
Prof, refrigeration	94,202	113,042	22,608
Domestic A/C	197,889	49,472	0
TOTAL	1,140,238	1,180,291	226,164

8. RAC Waste Collection & Recycling



9. TREATMENT & DISPOSAL



9. TREATMENT & DISPOSAL

Phase 0: Sorting (Holding Centres)

Temperature Exchange Equipment is sorted into different types:

- Fridges, freezers, cooling automatic dispensing machines, other
- Air conditioning and similar type of equipment

Phase 1: Removal of elements (Treatment Plant)

- Hazardous elements: Mercury tilt switches, condensers/capacitors.
- Non-hazardous: Glass, external supply cables, organic material (fridges and freezers), plastic trays, plastic casings, metallic grids, wood.

9. TREATMENT & DISPOSAL

Phase 2: De-Pollution (Treatment Plant)

- Oil and refrigerant gas extraction process from refrigerators and air conditioners
- Suctioning of refrigerants, using “Piercing pliers” or “drilling heads”
- The Oil is degassed - The refrigerant is bottled in tanks for disposal.
- Compressors, coils and tubing dismantled.
- 100% of refrigerants removed from A/C units
- 25% of refrigerant gases removed from refrigerators

9. TREATMENT & DISPOSAL

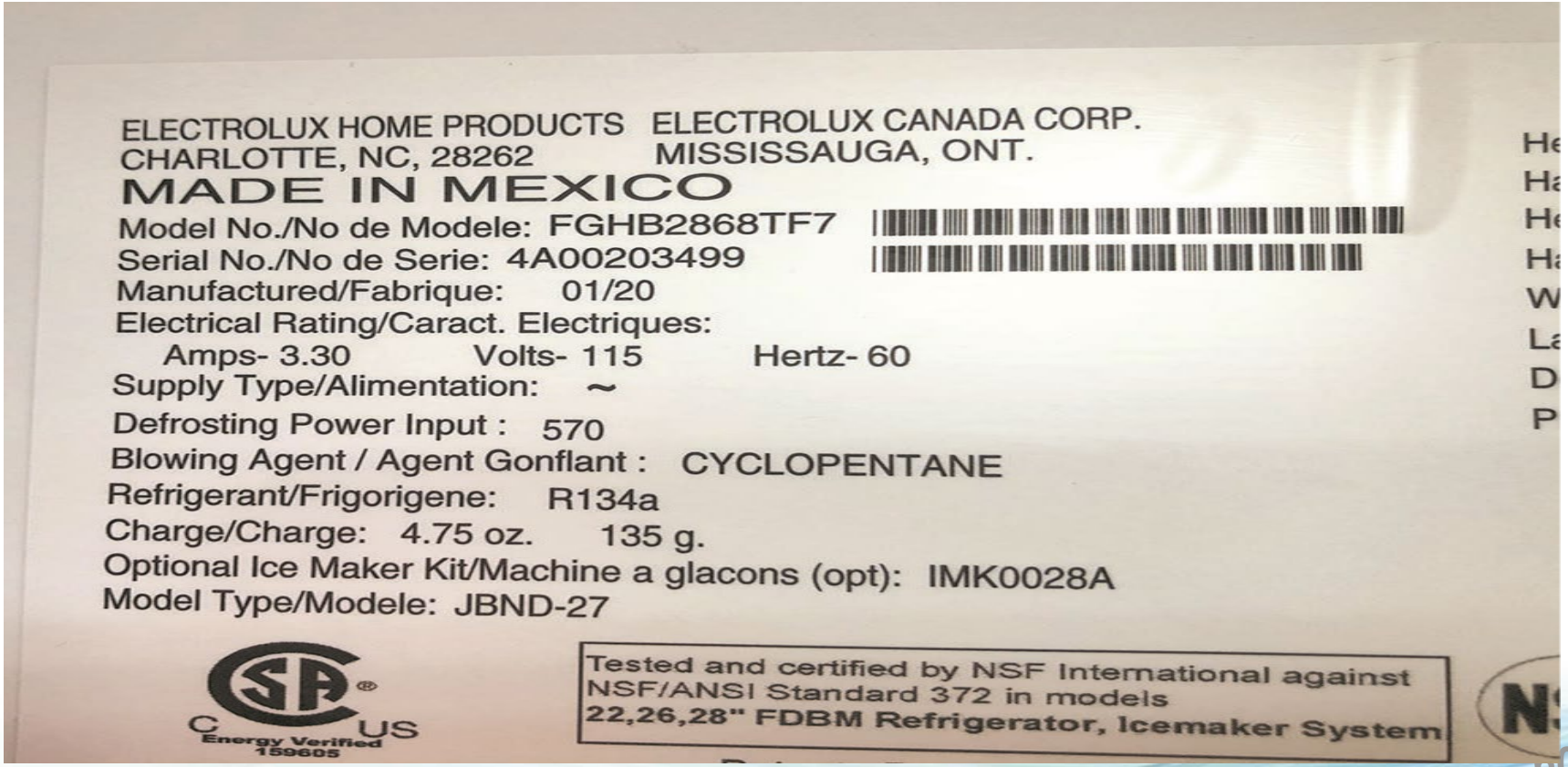
Phase 3: Refrigerator Cabinet Disposal

- **Fractions containing VFC** (R11, R12, R-141b, R245a) **or non identifiable**:
  - Cabinet with steel casing incinerated with no further processing (manual stripping of insulation emits 50-80% of remaining gas)

- **Fractions containing VHC** (C-Pentane, N-Pentane, Iso-Pentane):
  - Scrap market: Car shredder or foundry

59

9. TREATMENT & DISPOSAL



10. Proposal 1: Take-back System via Repair Shops

Objective: Develop a sustainable take-back system through a network of repair shops.

Background:

- High Value: Ghanaians highly value cooling appliances, prioritizing repair over disposal.
- Common Issue: High repair costs often lead to appliances being abandoned at repair shops.

10. Proposal 1: Take-back System via Repair Shops

Proposal:

1. Regulatory Framework:
   - Implement regulations to guide the disposal of EOL cooling appliances.
   - Ensure compliance with environmental standards.
2. Logistics Development:
   - Monitor & coordinate and document collection and treatment.
   - Establish a network linking repair shops to licensed recycling facilities.
   - Facilitate the transport and proper disposal of EOL appliances.
3. Repair Shop Role:
   - Empower repair shops to act as collection points for EOL appliances.
   - Provide training on documenting and handling EOL cooling appliances.

11. Proposal 2: Incentive Program

Objective:

Expand the existing e-waste incentive program to include EOL cooling appliances.

Background:

- Successful Model: Incentive programs for other e-waste fractions have proven effective.
- Informal Sector Role: Informal waste pickers are key players in the waste management ecosystem.

11. Proposal 2: Incentive Program

Proposal:

1. Incentive Expansion:
   - Extend the current e-waste incentive program to cover EOL cooling appliances.
   - Offer payments to informal waste pickers for turning in EOL cooling appliances.
2. Designated Collection Points:
   - Establish specific locations for waste pickers to drop off EOL cooling appliances.
   - Ensure these points are accessible and well-publicized.
3. Auction Process:
   - Collected EOL appliances are auctioned to licensed recyclers.
   - Proceeds from auctions can support the incentive program and further recycling initiatives.

12. Proposal 3: Mandatory Mandatory One-old-for-new-one

Objective:

Implement a mandatory collection system for commercial refrigeration and air conditioning (RAC) units.

Background:

- Commercial Impact: High turnover of commercial RAC units leads to significant EOL waste.
- Responsibility Gap: New suppliers often do not account for the disposal of replaced equipment.

12. Proposal 3: Mandatory Mandatory One-old-for-new-one

Proposal:

1. Mandatory Collection:
   - Enforce a regulation where suppliers of new commercial RAC units must collect the replaced equipment.
   - Establish a clear protocol for this collection process.
2. Supplier Responsibility:
   - Suppliers must turn in collected EOL RAC units to licensed recyclers.
   - Failure to comply will result in stiff penalties to ensure adherence.
3. Regulatory Changes:
   - Develop and implement the necessary regulatory framework.
   - Ensure thorough information dissemination to all stakeholders.

CONTACT

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HEAT

Öko-Institut e.V.
Institut für angewandte Ökologie
Institute for Applied Ecology

Development of Standard Opertating Procedures for the recycling of refrigerators and freezers in Ghana

Tobias A. Schleicher | Oeko-Institut e.V. | 18 June 2024

DO YOU HAVE QUESTIONS?

Welcome Back from COPA Looks ahead!!

Welcome Back from COPA Looks ahead!!

Question:
What has changed in your work since you joined COPA? Please write a short answer in the chat, to share with all.

Thank you all!

COPA
Cutting refrigerant emissions

10 min Break

10.40 am -10.45 am
(CEST)

to be followed by
Session 4: **COPA Positions**
Parallel Session: **COPA Learns – Country experiences China & Tunisia**
5.00-5.45 pm (CEST)

COPA
Cutting refrigerant emissions

Session 4

10.45 am-11.45 am
(CEST)

COPA Positions

COPA Learns China & Tunisia
"Parallel session"

AGENDAS (CEST)

Day 1 – 18th June

14:00	**Plenary Opening**			
(CEST)	Welcoming	The Federal Ministry for Economic Affairs and Climate Action		
		Steering Committee		
	COPA celebrates with members			
	Thematic Working Groups reports	Coordinators of Thematic Working Group		
15:30	**Break**			
	Parallel sessions			
15:45	**COPA Positions** *(stay in MS teams link)*		**COPA meets** *(switch to this MS teams link)*	
	Position Paper "COPA Safeguards"	I. Papst (Steering Committee)	Networking Session	
	Position Paper "COPA Position on HFO"	A. Bukmanis (Steering Committee)		
	Position Paper "COPA Position on Carbon Credits as financing source for management of ODS / HFC bank management activities"	T. Nickson (Steering Committee)		
16:45	**Break**			
	Parallel sessions			
17:00	**COPA learns: Best Practice from Grenada and Mexico** *(stay in MS teams link)*		**COPA looks ahead** *(switch to this MS teams link)*	
	How to establish a refrigerant recovery and recycling centre?	L. Smith (NOU Grenada) (tbc)	How to make COPA a sustainable and lasting Alliance?	COPA Steering Committee and Secretariat
	Country experience: Mexico	S. Merino (NOU Mexico)		
17:45	**Wrap Up & Closing of Day 1**			

Day 2 – 19th June

8:00	**Welcoming**			
(CEST)	Recap Day 1			
	Welcoming	The Federal Ministry for Economic Affairs and Climate Action		
	COPA celebrates with members			
	Parallel sessions			
8:30	**COPA learns: Carbon Markets** *(stay in* MS teams link*)*		**COPA meets** *(switch to this* MS teams link*)*	
	Experiences, Methodologies and national frameworks	H. Salway (Gold Standard)	Networking Session	
		G. Keotsene, B. Gopolang (NOU Botswana)		
9:30	**Break**			
	Parallel sessions			
9:45	**COPA learns: Best Practice from Ghana** *(stay in* MS teams link*)*		**COPA looks ahead** *(switch to this* MS teams link*)*	
	Options for ODS and HFC Collection	J. Baffoe (NOU Ghana)	How to make COPA a sustainable and lasting Alliance?	COPA Steering Committee and Secretariat
	Standard Operating Procedures for end-of-life Fridges & Freezers	T. Schleicher (Öko Institut)		
10:30	**Break**			
	Parallel sessions			
10:45	**COPA Positions** *(stay in* MS teams link*)*		**COPA learns: Best practices** *(switch to this* MS teams link*)*	
	Position Paper "*COPA Safeguards*"	**I. Papst (Steering Committee)**	China Energy Efficiency Survey	X. He (UNDP)
	Position Paper "*COPA Position on HFO*"	**A. Bukmanis (Steering Committee)**	Country experience: Tunisia	Y. Hammami (NOU Tunisia)
	Position Paper "COPA Position on Carbon Credits as financing source for management of ODS / HFC bank management activities"	T. Nickson (Steering Committee)		
11:45	**Wrap Up of 2nd Plenary Meeting & Closing**			

COPA positions in Main room (here)

- HFO refrigerants
- Safeguards
- Carbon Credits & Carbon Markets (ongoing)

COPA Learns – Best Practices

- ✓ UNDP
- ✓ Tunisia
- ✓ Click ***MS Team-link in Chat*** or in the Agenda to join

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Cutting refrigerant emissions

1. COPA Position Paper - Safeguards

Irene Papst, COPA Steering Committee (Private Sector)

Why are we taking a position on Safeguards?

- COPA considers wider environmental and social justice impacts of their projects and implements a set of safeguards to avoid undue effects.
- Those safeguards are used as checklist for any project that receives COPA support during the kick-off, implementation and evaluation.
- COPA aims to collect experience and possibly data to draw attention to otherwise overlooked issues.

1. DO NO HARM PRINCIPLE

- Mitigation activities should minimize and, wherever possible, avoid producing any negative environmental, economic, or social effects.
- Any potential environmental and social risks and impacts arising from mitigation activities should be assessed.
- Environmental and social safeguards should be implemented to avoid, minimize, and compensate potential risks and harms.

2. POSSIBLE ELEMENTS OF SAFEGUARD LIST

Aspect	Specific issues	Safeguards
Environmental pollution near destruction facilities	Pollutants from the destruction process, such as particulate matter, carbon monoxide, PFAS in combustion by-products	Implement highestinternationally recognized environmental standards (e.g. EU Air Qualitiy Standards), conduct regular testing and monitor air and water quality and waste residues around the facilities. Use best-available filtration and scrubbing technologies to minimize emissions.
Gender balance in project beneficiaries	Varies with project activities	Encourage gender diversity in employment and training programs. Implement policies that support the inclusion and advancement of women in all project roles.
Effects on informal market	Impact on informal sector workers and businesses	Consider special needs when conducting capacity development measures. Facilitate the transition of informal workers to the formal sector.
Worker Health and Safety	Occupational hazards associated with handling and destroying ODS, HFC and HFO	Provide comprehensive safety training, personal protective equipment, and health monitoring for workers. Establish emergency response protocols.
Community Engagement and Impact	Local community concerns about facility operations, health risks, and property values	Engage with local communities through regular meetings and information sessions. Implement community feedback mechanisms and ensure transparency in operations.
Waste Management and By-Product Disposal	Safe disposal of waste and by-products from the destruction process	Develop and adhere to strict waste management protocols. Explore recycling and safe disposal options for by-products.
Climate Change Considerations	Contribution of ODS destruction processes to greenhouse gas emissions	Implement strategies to minimize carbon footprint, such as using renewable energy sources and optimizing energy efficiency. (Link to Scope 3 GHG Protocol considerations)


QUESTIONS?
COMMENTS?

Cutting refrigerant emissions

2. COPA Position Paper - HFO

Adrian Bukmanis, COPA Steering Committee (Private Sector)

Why are we taking a position on low-GWP HFO refrigerants?

- Concern over primary and secondary degradation products
- Full lifecycle impacts
- Growing banks (e.g. vehicles)
- Limited awareness

1. POLICY

- Inclusion with similar diligence as ODS / HFCs
- Best practice management
- Raise awareness with policymakers

Photo by Jacek Dylag - Unsplash

2. DESTRUCTION

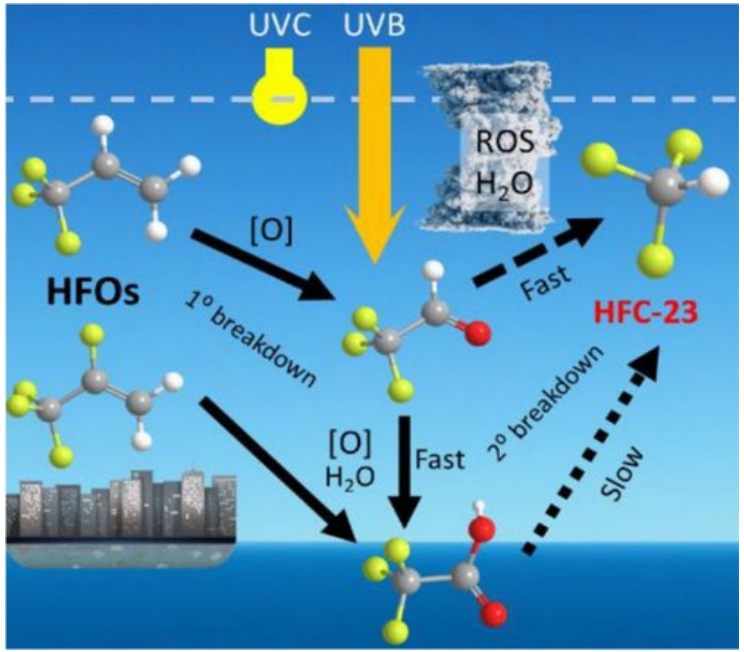
- Development and promotion of suitable technologies
- Evaluation of existing facilities
- Management of PFAS
- Work on financing mechanisms

3. ALTERNATIVES

- Non-fluorinated, natural refrigerants
- Leapfrog to avoid another transition
- All refrigerants need management

4. RESEARCH

- Support further research into atmospheric degradation
- Destruction byproducts
- Full-lifecycle impacts

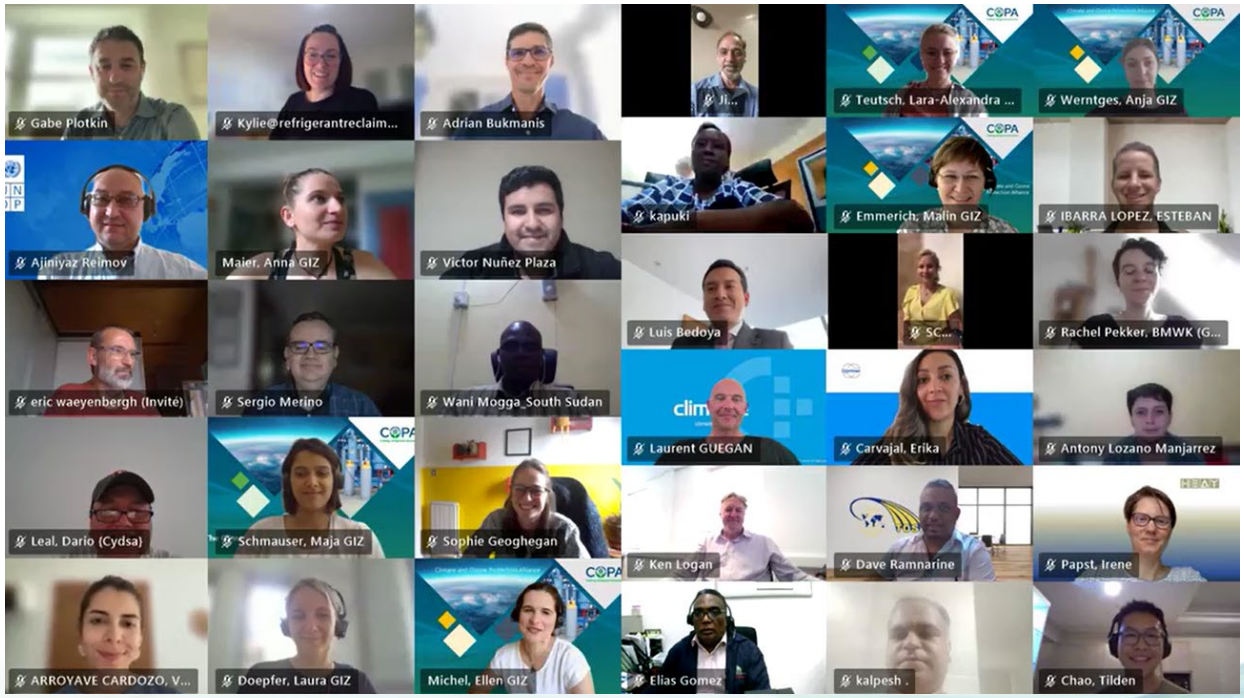


Salierno, *ChemSusChem* 2024, e202400280

5. STAKEHOLDER ENGAGEMENT

- Public outreach
- Education and training
- Early intervention to limit banks

What would COPA of 2040 ask of us?




QUESTIONS?
COMMENTS?

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COPA Position Paper – Carbon Credits

3.

Tom Nickson, COPA Steering Committee (Civil Society)
Malin Emmerich, COPA Secretariat (TWG FM Coordinator)

Why are we taking a position on Carbon Credits?

- Idea of funding ODS/HFC bank management activities through the generation and sale of carbon credits
- An opportunity worth considering for COPA activities
- Brings both potential risk and benefits
- Position paper is in draft version – overview of discussion today

OVERVIEW OF DRAFT POSITION PAPER

1. Carbon Credits & Carbon Markets
2. Opportunities
3. Risks & concerns
4. Orientation & Guidance; COPA as compass?

1. CARBON CREDITS & CARBON MARKETS

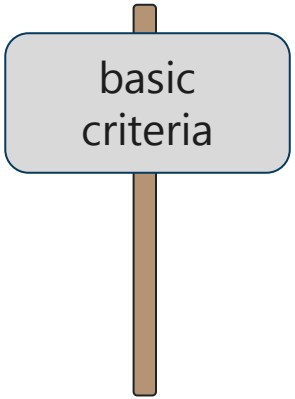
Three core aspects to the carbon markets today:

- **The mandatory or compliance markets**
  trade government issued/permitted emissions allowances within a structured market;
- **Sovereign carbon markets**
  national level for emissions reduction and removal
- **Voluntary carbon markets (VCMs)**
  trade credits based on carbon offsets for emissions avoidance, reduction or removal on a voluntary basis.

Carbon Credit:

- ✓ emission reductions equivalent of one ton CO2 = CO2eq
- ✓ Validated and certified

1. CARBON CREDITS / VALIDATION & CERTIFICATION



- **Quantification**
  Emissions reductions or removals used to generate a credit must be robustly quantifiable
- **Additionality**
  The activity generating the credit would not have occurred in the absence of the incentive created by selling the credits
- **Permanence**
  The activity generating the credit must lead to a permanent reduction or removal of emissions
- **Transparency**
  Comprehensive information is available on methodology employed, monitoring and reporting involved, and all mitigation activities undertaken

2. OPPORTUNITIES

In optimal circumstances carbon markets:

- can *allocate capital* towards low-carbon solutions and emission reductions
- create an *economic incentive* for reducing greenhouse gas (GHG) emissions as cost-effectively as possible
- support increased *involvement of the private sector* in climate mitigation

3. RISKS AND CONCERNS

Broader issues with carbon offset credits:

- Greenwashing & delaying real climate action
- Carbon market integrity cannot be assured
  - Scandals past & present
  - No control over who buys credits
- Carbon credits risk disincentivising the significant investments needed to tackle the climate crisis

Issues specific to ODS & HFC credits:

- Lack of additionality (and permanence)
- Undermining the incentive to legislate
- Risk of creating perverse incentives
- 'Bringing forward' emissions
- Not a sustainable model in the long-term
- Potential derogation from Vienna Convention

4. COPA ORIENTATION & GUIDANCE

- Should / Can the COPA position paper function as compass and guidance for members on carbon credits and carbon markets?
- Be a neutral platform for information available?
- What should be included resp. not included?
- What are COPA members experiences with carbon credits & carbon markets?

QUESTIONS?

COMMENTS?

Welcome Back!

It is time to wrap-up the COPA Plenary Meeting!

Day 2 – Meeting point
COPA Plenary Meeting 2024

COPA
Cutting refrigerant emissions

Session 5

11.45 am-12.00 pm (CEST)

Wrap-up Plenary

Group Photo

Graphic recording

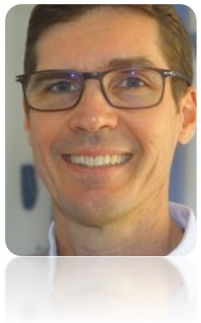
THE STEERING COMMITTEE
Public Entity (Group A)

Rachel Pekker

Bundesministerium für Wirtschaft und Klimaschutz

Federal Ministry for Economic Affairs and Climate Action - BMWK
Member since: 2021
Germany

THE STEERING COMMITTEE
Private Sector (Group B)



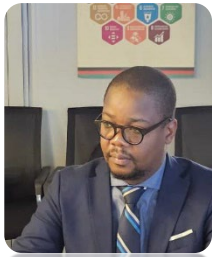
Adrian Bukmanis

Veridien
Member since: 2021
Singapore, France

Irene Papst

HEAT
Member since: 2022
Germany

THE STEERING COMMITTEE
Civil Society (Group C)



Gift Richard Maloya

ICAD – The Initiative for Climate Action and Development

ICAD
Member since: 2023
Malawi

Tom Nickson

environmental investigation agency

EIA
Member since: 2021
United Kingdom

THE STEERING COMMITTEE
Academia (Group D)

Mustafa Hathal

The Scientific Society of Scientific Studies and Research - Iraq
Member since: November 2022
Iraq

THE STEERING COMMITTEE
Countries (Group F)

Rómulo Armas Real

Ministerio de Producción Comercio Exterior, Inversiones y Pesca

Gobierno del Ecuador | GUILLERMO LASSO PRESIDENTE

Elías Gómez Mesa

GOBIERNO DE LA REPÚBLICA DOMINICANA
MEDIO AMBIENTE

COPA
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Thank you for your participation! ☺