STATISTICS

2025 SNA Update: Wellbeing and Sustainability Task Team Guidance Note: WS. 7 Emission Trading Schemes

SEPTEMBER 2022

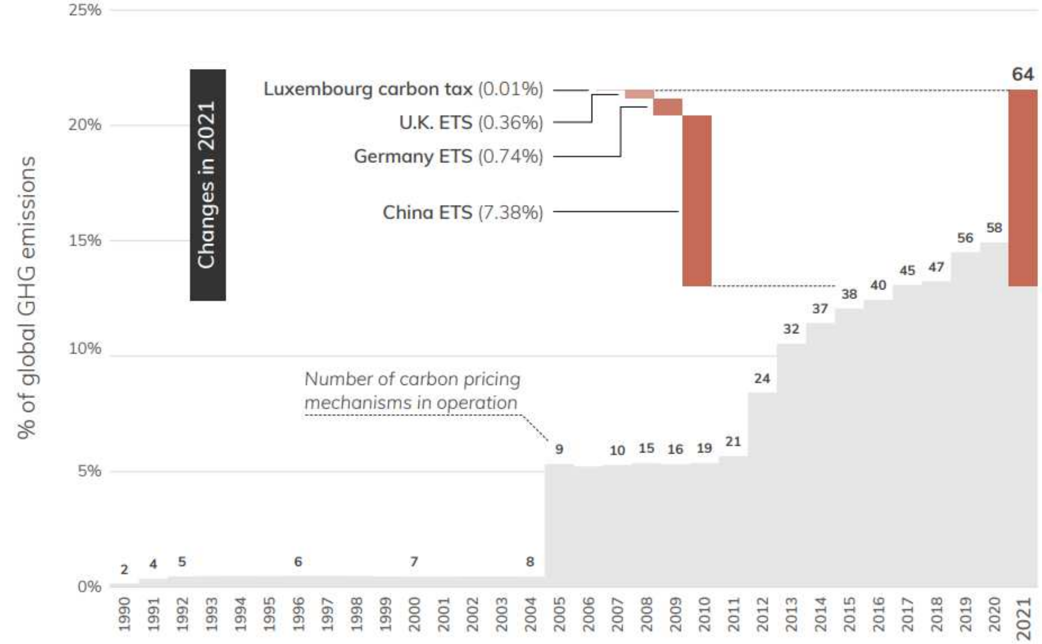
EMMANUEL MANOLIKAKIS

Background

- To reduce GHG emissions, countries around the world are looking at putting a price on carbon emissions. Two of the more popular policy instruments include:
  - Carbon taxes
  - Emission trading schemes (ETS) (e.g., Cap and trade)

- These policies apply a price to a broad set of emission sources that are aimed at encouraging businesses and individuals to innovate and change their behavior and therefore reduce the level of GHG emissions.

In 2021, 21.5% of global GHG emissions are covered by carbon pricing instruments in operation, representing a significant increase on 2020, when only 15.1% of global emissions were covered



World Bank: State and Trends of Carbon Pricing 2021
http://hdl.handle.net/10986/35620

Emission Trading Schemes (Cap and Trade schemes)

Government establishes a cap on emissions

Governments create a permit and requires firms to hold a permit in order to emit.

Government auctions off the permit. The purchase is not restricted to emitting firms and the permit is marketable.

Once purchased, the purchaser is free to sell the permit at the going market rate.

It is presumed that only non-financial corporations will emit. If companies exceed their quota for emissions, they can purchase unused permits from others.

Firms must surrender permits corresponding to the gases they emit.

Recording Emission Trading Schemes

- The 2008 SNA provides "lite" guidance on the treatment of Emissions Trading Schemes.
- A clarification note was issued by the ISWGNA based on the deliberations of an OECD/Eurostat Task Force on the Treatment of Emission Allowances and Emission Permits in the National Accounts (Final Report October 2010).
- The SNA update Wellbeing and Sustainability Task Team has been asked to examine the current set of recommendations and propose alternatives.
- The proposed alternatives attempt to balance alignment with the conceptual framework, pragmatism and ensuring the transactions, flows and stocks are visible to users.

Current Recommendation: **Emissions Permits recorded as split assets, with taxes on production recorded at surrender**

Recognition – Split Asset Approach

Payments for EP ==> taxes on production, recorded on an accrual basis (at time of emission)

Issue

- Financial asset (accounts receivable, pre-paid tax) valued at purchase price created for firm
- Corresponding financial liability (accounts payable, pre-paid tax) recorded for GG

Subsequent periods

- NPNFA = Purchase Price – Market Price of EP
- Increased asset via (OCVA) for firm
- Liability of GG remains the same

Surrender

- NPNFA is removed from balance sheet of the firm via (OCVA)
- Financial asset surrendered to GG (valued at purchase price) in lieu of taxes

- *GG debt is unaffected by change in value of permits.*
- *GG accounts is unaffected by secondary market trading*
- *Tax revenue is determined by value of permit surrendered at issuance*
- *Variability in GG Net Lending/ Debt can arise from indifference of firms to surrendered permit.*
- *NPNFA – may have a negative value*

Current Guidance: Emissions Permits recorded as split assets, with taxes on production recorded at surrender

- ✓ It is possible for the market value of the emission permit to fall below the auctioned price (i.e. resulting in a negative asset value).
- ✓ Emission permits can be purchased by non-emitters – in these cases should they be recorded as a prepaid tax - especially if the purchaser never intends to surrender them.
- ✓ Non-residents can purchase the emission permits and surrender them in their economy – creating a taxes on production payment by a non-resident to a foreign government.
- ✓ The split asset approach does not align with how firms record these in their accounting records. Does the source data exist to record according to the split asset approach?
- ✓ The proceeds from the auctions permits impact government operating balances – are the proceeds intended to support current operations?

Proposed Option 1: **Emission Permits as non-produced non-financial assets (contracts, leases and licenses)**

Emission Permits – Right to Use Assets

- SNA implicitly recognizes the atmosphere as an asset that provides climate regulating services

Issue

- An appearance of an asset (emissions permit) in the government sector through a volume change in the OCVA account.
- Acquisition less disposal of non-produced asset (valued at time of sale, and depreciates to zero over its useful life)

Subsequent periods

- Any change in market price will be shown in the revaluation account for all institutional sectors who acquired the NPNF asset
- No impact on GG debt

Surrender

- NPNFA is removed from balance sheet of acquirers via (OCVA)

- *GG records cash for disposal of asset*
- *GG debt is unaffected by change in value of permits.*
- *GG Net Lending/ borrowing impacted by disposal of NPNF asset.*
- *GG accounts is unaffected by secondary market trading*

Proposed Option 2: **Emission Permits recorded as a resource lease (financial asset), with resource rent recorded at surrender**

Recognition – Resource Rent – Prepaid rent approach

Payments for EP ==> taxes on production, recorded on an accrual basis (at time of emission)

Issue

- Financial asset (accounts receivable, pre-paid tax) valued at purchase price created for firm
- Corresponding financial liability (accounts payable, pre-paid tax) recorded for GG

Subsequent periods

- Simultaneously, a forward contract is created with zero value. Changes in market price of EP will lead to a financial asset or liability. However, the value is only recognized at the time of surrender.

Surrender

- The forward is required to match the surrender of the EP at the prevailing market price.
- Positive increases in the market price at the time of surrender will benefit holders and a decrease will lead to a benefit for the issuer.

- GG debt is unaffected by change in value of permits.
- Variability in GG Net Lending/ borrowing will arise from changes in market prices at the time of surrender.
- Tax revenue is determined by value of permit at time of surrender at market price.
- Forward – may be an asset or liability - issuer/acquirer.

Proposed Option 3: **Emissions Permits recorded as Contracts, Leases, Licenses with taxes on Production recorded at Auction**

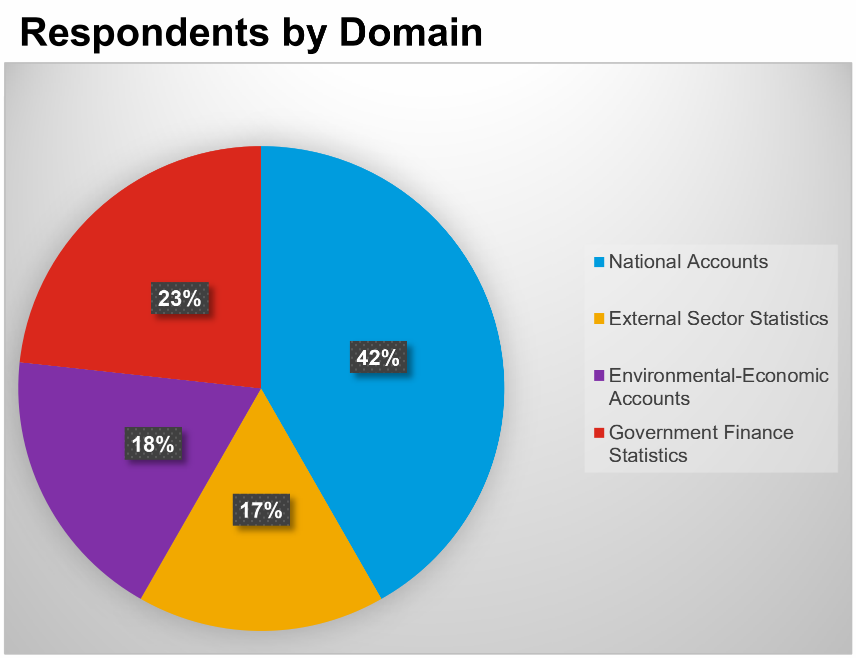
Proposed Option 4: **Emissions Permits recorded as Financial Assets with taxes on production recorded at surrender**

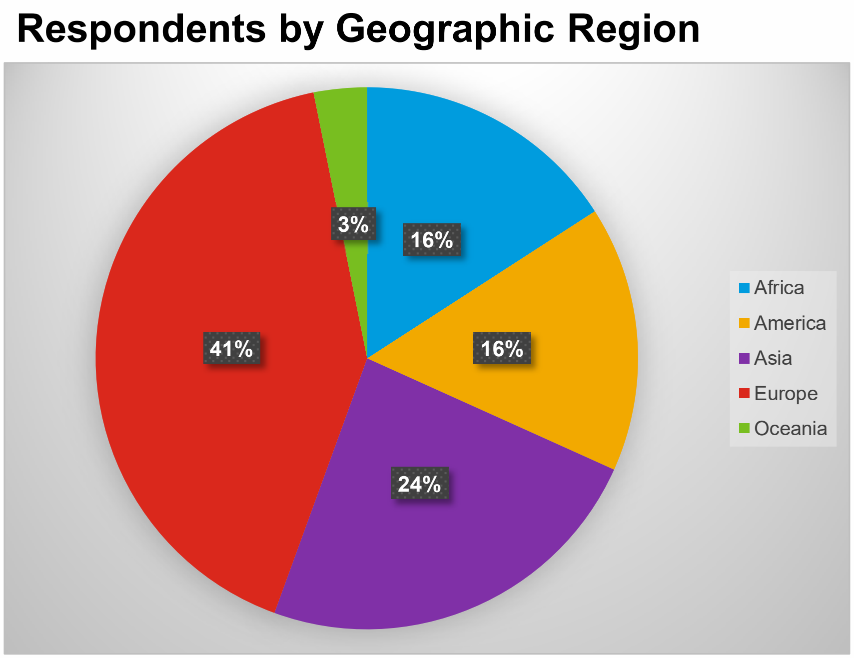
Summary of the Alternative Options

Approach/Impacts	Emission Permits recorded as a non-produced non-financial asset – contracts, leases, and licenses (Option 1)	Emission permits recorded as a resource lease (financial asset), with resource rent recorded at surrender (Option 2)	Emission permits recorded as contract, leases, and licenses with taxes on production recorded at auction (Option 3)	Emission Permits recorded as a financial asset with taxes on production recorded at surrender (Option 4)	Emission Permits recorded as split assets, with taxes on production recorded at surrender (Option 5)
Recognition of the Atmosphere as a natural asset	X	X	X		
Impact on Government Operating Surplus / Deficit / Savings		X	X	X	X
Impact restricted to Government Net Lending / Borrowing	X				
Impact on GDP			X	X	X
Limited Source Data Requirements	X	X	X		
Clarity for Users	X	X	X	X	
Consistency with quotas and radio spectra	X	X			

Global Consultation Questionnaire - Guidance Note on the Treatment of Emission Trading Schemes

Recording Emission Trading Schemes



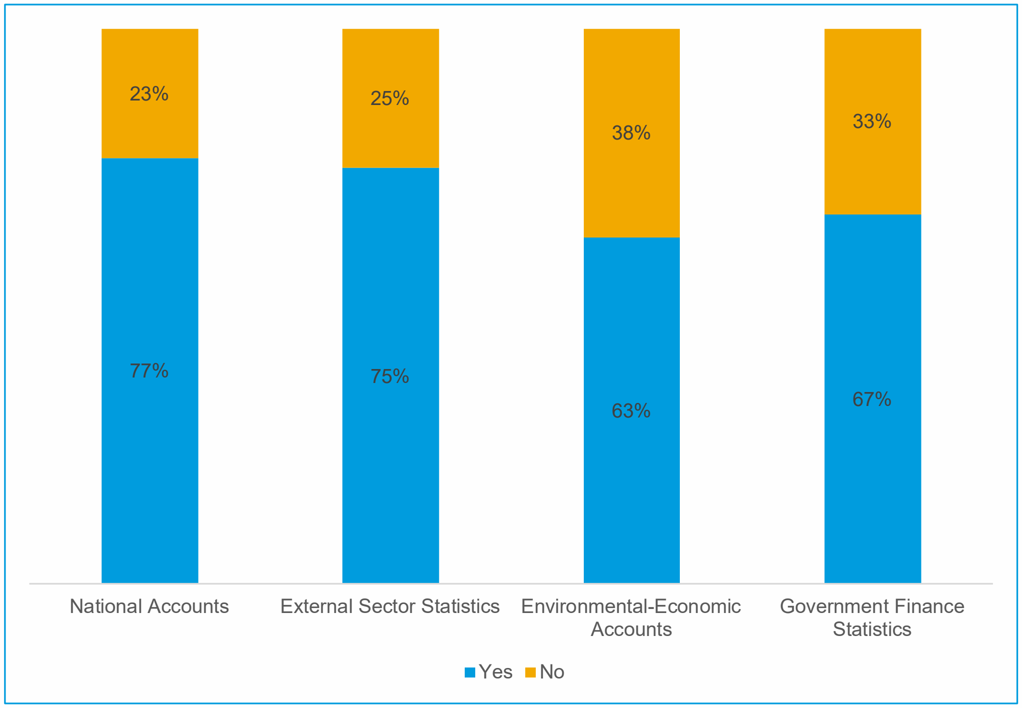


- In terms of domains, 41.7 per cent represent the national accounts (NA), followed by Government Finance Statistics (GFS) at 23.3 percent, Environmental Economic Accounts (EEA) at 18.4 percent and External Sector Statistics (ESS) at 16.5 percent.
- In terms of geographical regions, 55 economies are represented

Do you agree with the recognition of the atmosphere as an implicit?

- Overall, 72 percent of respondents agreed with the recognition of the atmosphere as an implicit asset, while 28 percent disagreed with this notion.
- In terms of domains, 77 percent of NA respondents agreed with the notion of the atmosphere as an implicit asset, followed by, ESS, GFS and EEA.
- The principal reasons provided by respondents for not recognizing the atmosphere as an implicit asset is because ownership rights cannot be established.

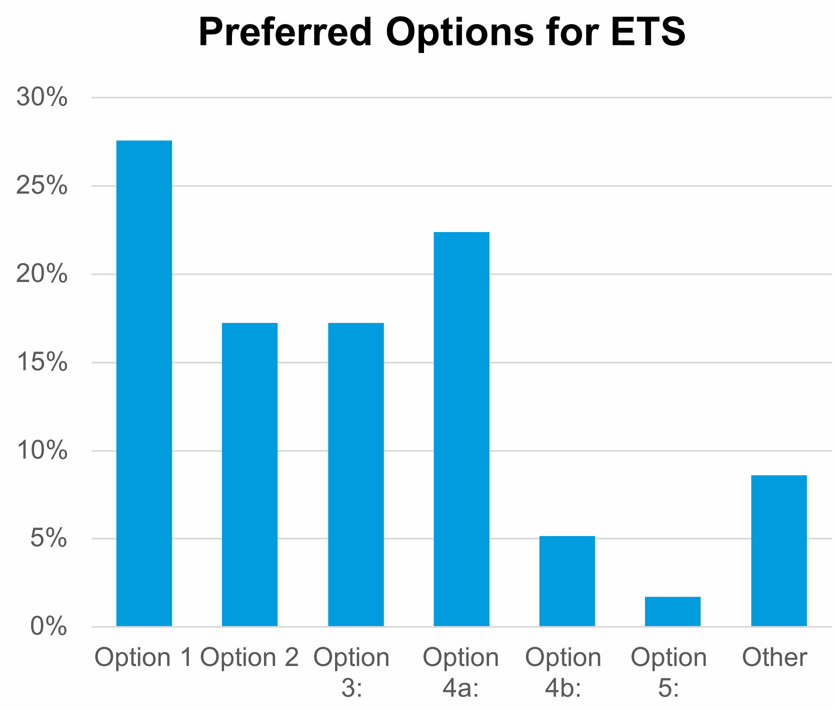
Recognition of the Atmosphere as an Implicit Asset



What would be your preferred option for recording emission trading schemes?

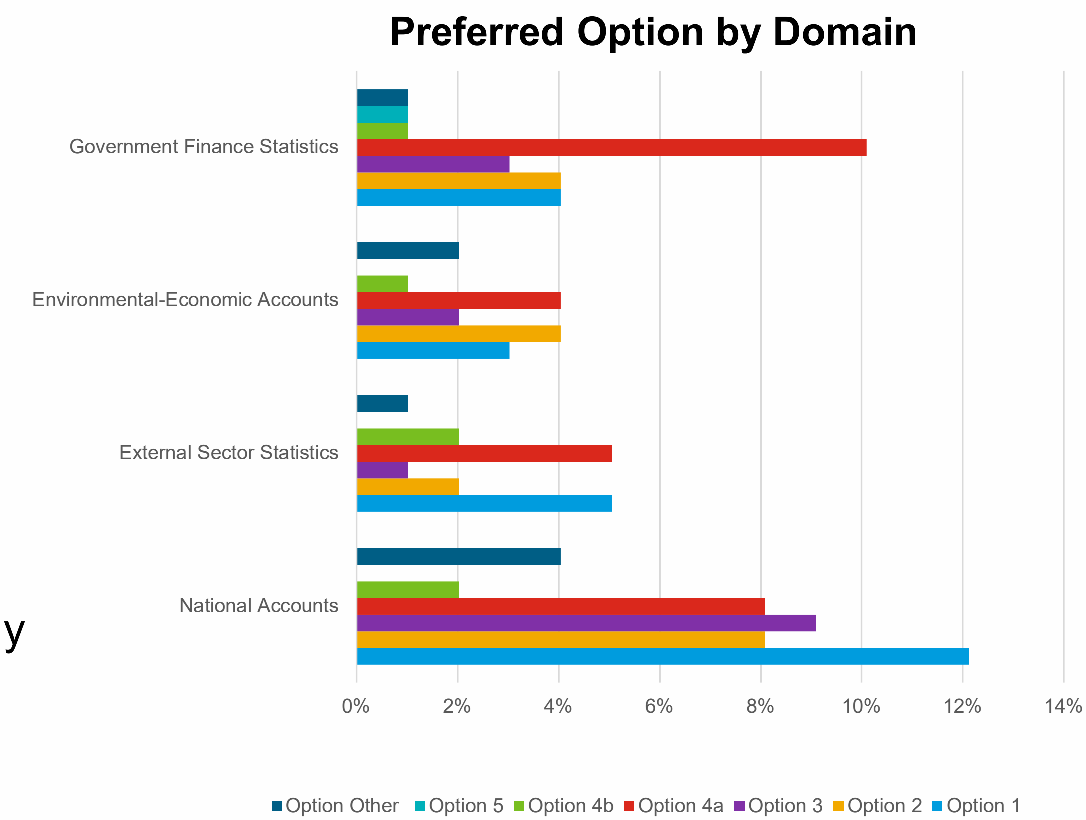
There was no clear consensus for a particular option to record ETS

- The top 3 options for recording ETS are: Option 1 - Emissions Permits recorded as a **non-produced non-financial asset – contracts, leases, and licenses**, is the preferred option for 16 respondents or 28 percent;
- This was followed by option 4.a Emission Permits recorded as a **financial asset** with taxes on production recorded at surrender (at issuance value), 22 percent (13 respondents)
- And a tie for third at 17 percent, option 2 - Emissions permits recorded as a **resource lease** and option 3 - Emissions permits recorded as **contract, leases, and licenses**, with taxes on production recorded at auction.



What would be your preferred option for recording emission trading schemes?

- Although, overall option 1, is ranked the highest, emissions permits recorded as a non-produced non-financial asset – contracts, leases, and licenses. This is not the preferred option by domain.
- Option 4a Emission Permits recorded as a financial asset with taxes on production recorded at surrender (at issuance value), is the preferred option for GFS.
- For ESS, option 4a and option 1, are equally preferable.
- For EEA, option 4a and option 2 are equally preferable
- and finally for NA, option1 followed by 3.



Way Forward

Way Forward

- The results of the global consultation were not conclusive. Option 1 was preferred by NA respondents whereas, Option 4a was the preferred choice for GFS respondents.
- All the options have their merits and challenges
- Conceptually and practically option 1 may have a slight advantage over option 4a.
- The committee members of the AEG/BOPCOMM will need to decide during their October meeting whether one of the proposed options should be endorsed or whether the current recommendation – split asset approach should continue.

Thank You!

Questions/Comments/Suggestions?