



**STATISTICS**

# **WS.12 – Environmental Classifications**

**MARCH 2023**

Advisory Expert Group – National Accounts

## Responses and Geographic Profile

- 14 questions / recommendations
- 71 responses (112 pages of feedback).
- 55 Countries.
- National Statistical Offices, Central Banks, Ministries of Finance.
- Opened Jan 10, 2023 and Closed on Feb 10, 2023

## Global Consultation Questionnaire on WS.12 Environmental Classifications

A proposal for adding environmental classes to the classification systems utilized by the System of National Accounts

### Instructions:

For each question, please provide the answer by clicking the relevant check box or by typing in the framed textboxes, which will automatically expand to fit the text.

Please note that the survey may reach one or more contacts in your agency; we would appreciate, however, a consolidated response from your agency. A printable version of the questionnaire is available for your convenience. The guidance note is available [here](#).

If you have any questions, please contact [sna@un.org](mailto:sna@un.org).

### Summary of the guidance note:

Classification systems provide statisticians a way to organize and present data to users in a clear, consistent, and analytically useful manner. The System of National Accounts, 2008 (2008 SNA) utilizes 13 classification systems to present information to users. Of the 13 classification systems used, 4 are specific to the SNA with the remaining 9 'inherited' from other statistical frameworks. The 4 classification systems specific to the SNA include the classification of institutional sectors, classification of transactions, classification of other economic flows and classification of stocks.

Since the release of the 2008 SNA there has been increased demand for statistics that highlight the interplay between the economy and the environment. The current set of SNA environmental classes included in the 2008 SNA classifications (either germane or inherited) focus on environmental protection, resource management and natural resource assets. While important, the scope of the classifications do not fully address emerging issues related to sustainability, biodiversity management, climate change, renewable energy, waste and recycling activities, environmental, social progress, governance, or environmental degradation.

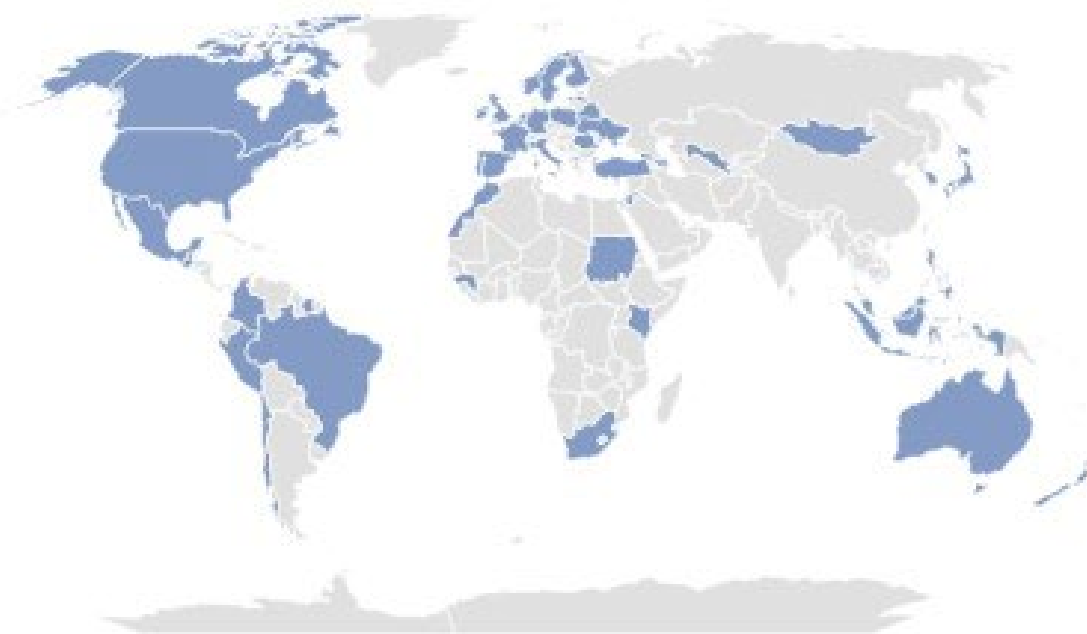
Themes such as waste management, biodiversity, renewable energy, and natural resource management are being addressed in the update of the ISIC, CPC, and various functional classifications heavily utilized by the SNA. Give these on-going initiatives this guidance note has been limited to a discussion on possible updates to the 4 classification systems specific to the SNA: namely the institutional sector classification system (S), the classification of transactions (P, NP, D, F), the classification of other flows (K) and the classification of stocks (AN and AF). Moreover, the recommended updates have been further limited to

- (1) reflect the new and/or refined wellbeing-environment-economic concepts reflected in the various SNA update guidance notes already endorsed by the ISWGNA/AEG and
- (2) suggested additional classes that could be added to the SNA specific classification systems which have not yet been addressed in the update process.

# Overview

## Geographic Breakdown - Responses GN WS.12

Response (Yes, No)



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# Q1 - Should Environmental, Social, Governance (ESG) Funds and Climate Adaptation Investment Funds be added as “of which” categories to the Non-Money Market Fund (Non-MMF) Investment Funds Sub-sector (S124)?

## Yes – but...

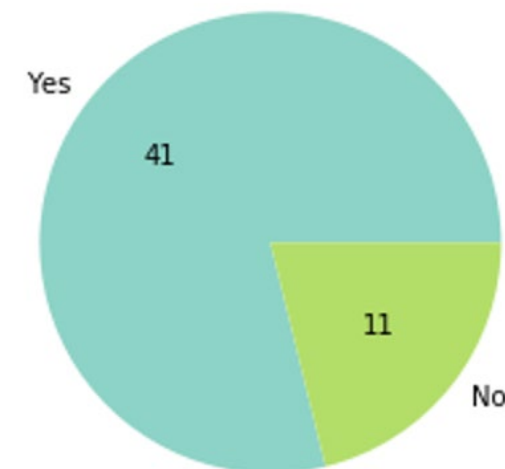
- ✓ ***“ESGs still lack clear and internationally agreed definitions”***
- ✓ ***“...Third, it is contrary to the nature of national accounts to present the results of individual policy fields in a decided manager and to react to political moods and trends in NA. Here too, the question arises as to why precisely these and not other types of funds should be shown separately and how constant such selections are over time.”***
- ✓ ***“Inside the financial corporations’ sector, financial institutions are distinguished according to the way the fulfill their specific financing function, and to the kind of financial liabilities they issue, and not to the purpose of the instruments they issue”***

Non-MMF Investment Funds (S124)

Of Which – ESG Funds

Of which – Climate Adaptation Investment Funds

- Yes
- No
- Not sure/I don't know



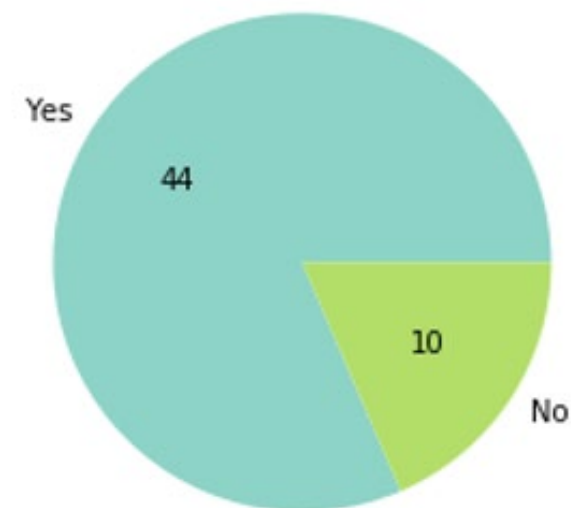
## Q2 - Should Environmental, Social and Governance (ESG) Bonds and Green Bonds be added as “of which” categories to Debt Securities?

### Yes – but...

- ✓ ***“ESGs still lack clear and internationally agreed definitions”***
- ✓ ***“In addition, “ESG bonds” suffer from the same lack of a proper regulatory definition as “ESG funds” (see our answer to Q1). However, we believe that national accountants will find it easier to track ESG debt instruments than ESG funds, because good quality public data on bond issuances will be more accessible than data related to fund labels.”***
- ✓ ***“We have doubts on the possibility, in general, to identify a specific purpose and classify bonds on a functional basis. In any case, we don't agree with the definition. We propose to adopt a definition consistent with the one of Environmental Activities of the SEEA CF.”***

Debt securities  
Of which: ESG bonds  
Of Which: Green Bonds

Yes  
 No  
 Not sure/I don't know



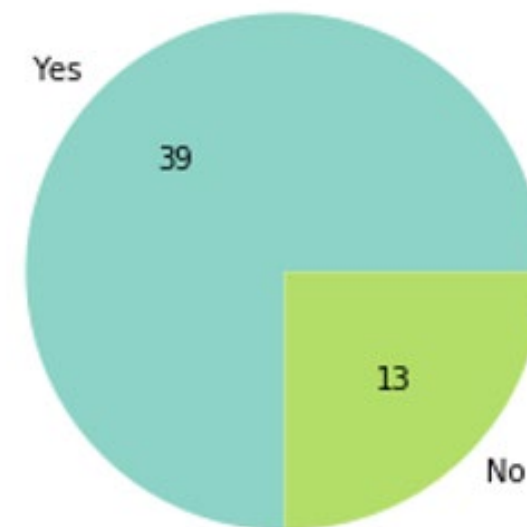
### Q3 - Should ESG Loans and Green Loans be added as “of which” categories to Loans?

#### Yes – but...

- ✓ ***“As with Q1B, we aren’t certain that the SNA is the best place to record this breakdown, however we aren’t against it.”***
- ✓ ***“While the funds with the word “ESG” in their name or investment strategy are increasing, a so-called “greenwashing problem,” the concerns that their actual investment behavior may not be in line with their label, is pointed out all over the world. In this regard, it is difficult to distinguish the genuine ESG funds or ESG loans from, so to speak, the fake ones at this moment.”***
- ✓ ***“Although we agree with the suggested breakdown, we are concerned about the feasibility of this analysis given that this information may not be available in all data sources e.g. financial statements.”***

Loans  
Of which: ESG Loans  
Of Which: Green Loans

Yes  
 No  
 Not sure/I don't know



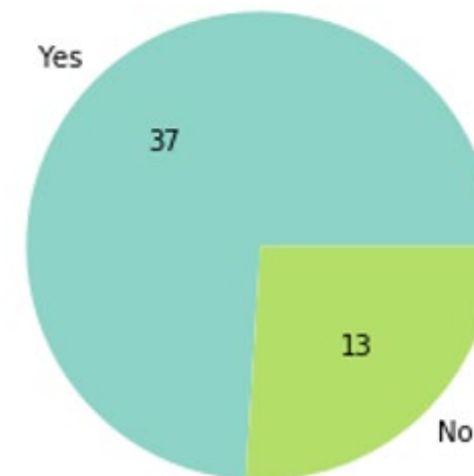
## Q4 - Should ESG Equity and Investment Fund Shares and Green Equity and Investment Fund Shares be added as “of which” categories to Equity and Investment Fund Shares?

### Yes – but...

- ✓ ***“Balance sheet instruments (8) in macroeconomic statistics (SNA, GFS) are classified based on the economic substance of the instruments (liquidity, negotiability, legal characteristics). We shouldn’t try to use the core economic classifications to, in the end, qualify some of them as “green”, “environmental”, “efficient”, “ESG”, etc. (such as “of which” proposed in the GN).”***
- ✓ ***“In any case it seems particular difficult to capture the classification of the full categories of equity (listed, not listed and other equity) as only information for listed companies may be available in securities databases or in commercial data sources”***

Equity and Investment Fund Shares  
Of which: ESG Equity and Investment Fund Shares  
Of which: Green Equity and Investment Fund Shares

Yes  
 No  
 Not sure/I don't know



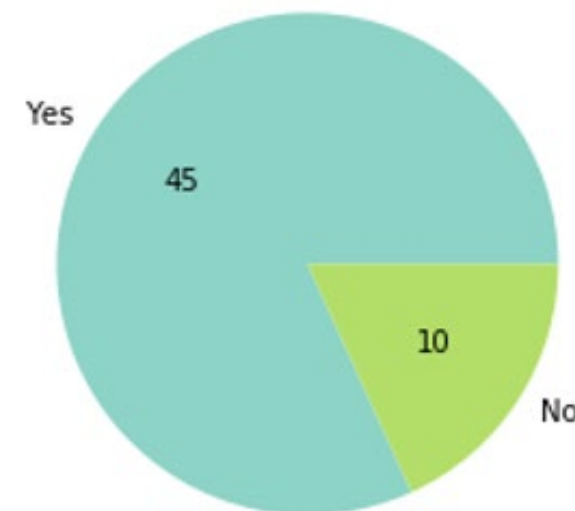
## Q5 - Should separate classes of resource rent be established for each natural resource asset recognized within the SNA asset classification?

### Yes – but...

- ✓ *“The proposed breakdown classification of Rent/NFA isn’t mutually exclusive as it stands now, but it can be fixed. Biomass is used for energy, for example: does it go under biological resources or renewable energy? The same holds for water which can be used for hydroelectricity: does it go under water resources or renewable energy?”*
- ✓ *“It is recommended, in coherence with the System of Environmental and Economic Accounting, to use the classification of individual environmental assets as a reference for disaggregation, incorporating the levels required for mineral and energy resource assets and for the rent of non-natural resources.”*
- ✓ *“We are not convinced by this proposal for several reasons: First, we do not see such a split as feasible. Second, we also do not agree with the recommendations to include renewable energy resources as assets....”*

#### Natural Resource Rent

- Natural Resource Rent – Land
  - Natural Resource Rent – Non-renewable energy resources
  - Natural Resource Rent – Renewable energy resources
  - Natural Resource Rent – Mineral resources
  - Natural Resources Rent – Biological Resources
  - Natural Resources Rent – Water Resources
  - Natural Resources Rent – Other natural resources
  - Non-natural resource rent
- Yes  
 No  
 Not sure/I don't know





## Q6 - Should the revenue that governments receive from carbon pricing mechanisms be separately identified in the System of National Accounts?

### Yes – but...

- ✓ *“We will be able to answer only when a final decision is made. However, in the case of taxes, there is presently in the integrated framework of the SNA no distinction made according to the purposes of taxes. It is not advisable to make an exception. Which does not preclude the possibility to introduce this kind of information in supplementary tables.”*
- ✓ *“As with our responses above, we are not certain that the SNA is the best place to record this, however these transactions fit with existing breakdowns of transactions NZ already provides due to customer interest.”*
- ✓ *“Proposal is not clear as it also depends on the discussions whether emissions trading schemes should be recorded as a tax on production, a rent payment, or the purchase of an existing non-produced non-financial asset. Carbon taxes are part of environmental taxes, see also next question.”*

### Carbon Pricing Mechanisms

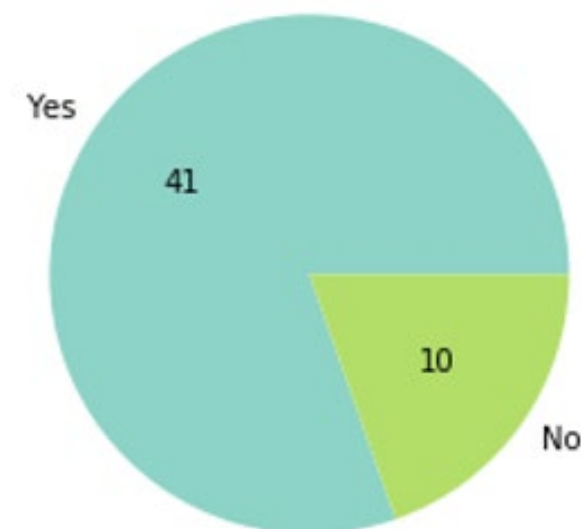
Carbon Taxes

Emissions Trading Scheme

Yes

No

Not sure/I don't know



## Q7 - Should “of which” categories be created for environmental taxes?

### Yes – but...

- ✓ *“Not necessary to have an additional grouping inside the taxes category in the national accounts. Taxes are published on an individual level in other statistical frameworks, so users can decide which ones are related to environmental issues.”*
- ✓ *“As mentioned above, there is presently, in the integrated framework of the SNA, no distinction made according to the purposes of taxes. It is not advisable to make an exception.”*
- ✓ *“Since a presentation of environmental taxes is made in the SEEA, reference may be made to the SEEA data and publications in the SNA own publications.”*

### Taxes on production and imports

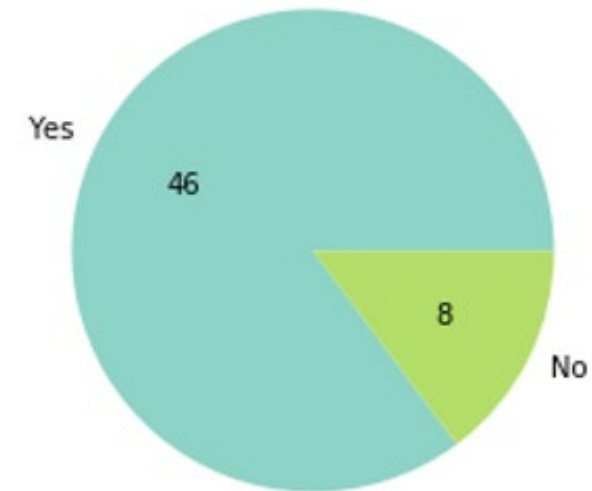
Taxes on products

Of which: Environmental taxes on products

Other taxes on production

Of which: Other environmental taxes on production

- Yes
- No
- Not sure/I don't know



## Q8 - Should “of which” categories be created for environmental subsidies?

### Yes – but...

- ✓ *“We believe that it is still not clear enough which subsidies are considered environmental to be classified that way. It would be important, first, to have a list of these subsidies, then to make the decision to insert (or no) these revenues in the SNA. In this sense, a clearer guideline on what subsidies should be included it would be nice.”*
- ✓ *“Defining which subsidies to be included needs to be done carefully and precisely. As this is currently described, this is not clear enough for implementation.”*

### Subsidies

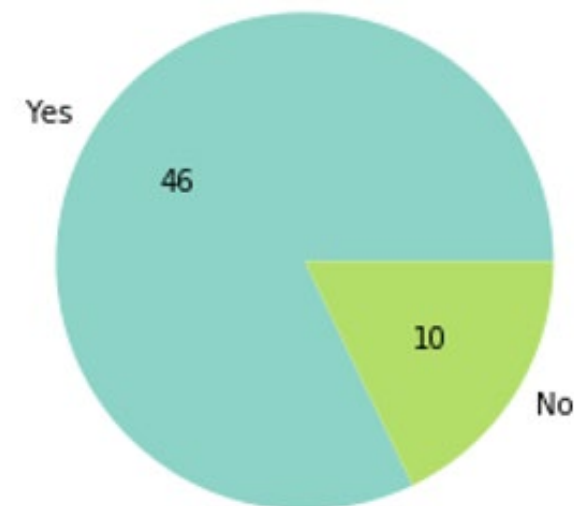
Subsidies on products

Of which: Environmental subsidies

Other subsidies on production

Of which: other environmental subsidies on production

- Yes
- No
- Not sure/I don't know



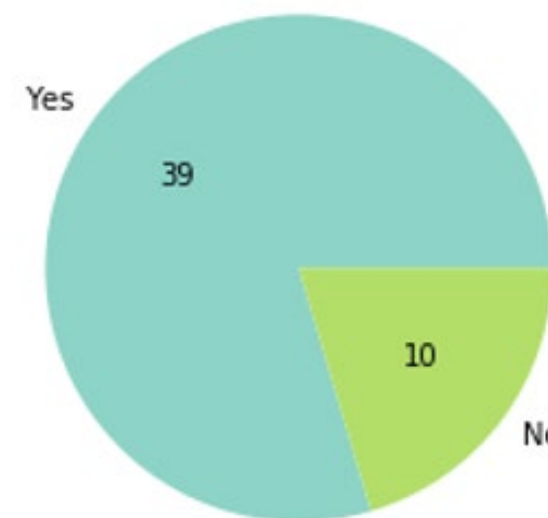
## Q9 - Should “of which” categories be created for Renewable Energy Installations and Fossil Fuel Installations?

### Yes – but...

- ✓ *“Additional guidance as to what should be included in this category will be helpful, particularly clarifying if battery storage associated with storage of renewable energy would be included here.”*
- ✓ *“The proposed categories exclude nuclear power installations. Furthermore, we doubt the usefulness of the categories. Energy plants (renewable or otherwise) are not simply structures determined by their main technologies but also include GFCF in machinery and equipment and, to a lesser degree, intellectual property products (i.e. software). Focusing on structures and technologies of energy generation alone would be misleading.”*
- ✓ *“The term installation, especially in the renewable energy is too ambiguous. This seems to be a potentially useful breakout of non-financial assets/structures, but there are some additional issues that should be considered. To clarify, are the charging stations for electric vehicles to be considered part of “renewable energy installations” ?”*

AN.1122 Other structures  
Of which: Renewable Energy Installations  
Of which: Fossil Fuel Installations

Yes  
 No  
 Not sure/I don't know



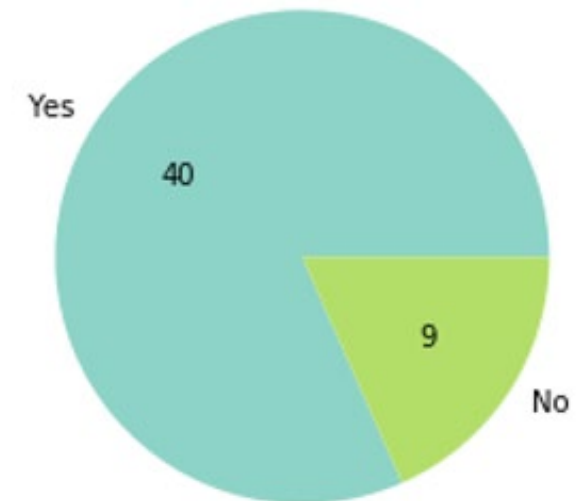
## Q10 - Should “of which” categories be created for Electric powered transport equipment?

### Yes – but...

- ✓ *“Respondent burden and lack of available data are important considerations here. Again, we have missing examples: we specify electric but not hydrogen, how does hybrid fit-in. Would and “of which renewable” be more appropriate? (But then we highlight the issue of an electric car powered by electricity generated from coal which is clearly not the desired purpose of this split).”*
- ✓ *“This seems to be very specific to measure the energy transition. It may be too specific for the SNA. If we want to include it, it would be useful to have a more in-depth discussion on the topic.”*
- ✓ *“In addition, we do not think national accountants will be able to reliably track asset values in the balance sheets because the same distinction is not made in the classifications of products for the corresponding products (electric vs. fossil fuel powered trains, trucks, cars, boats etc.)”*

AN. 113 Machinery and Equipment  
AN.1131 Transport Equipment  
Of which: Electric powered Transport Equipment

- Yes
- No
- Not sure/I don't know



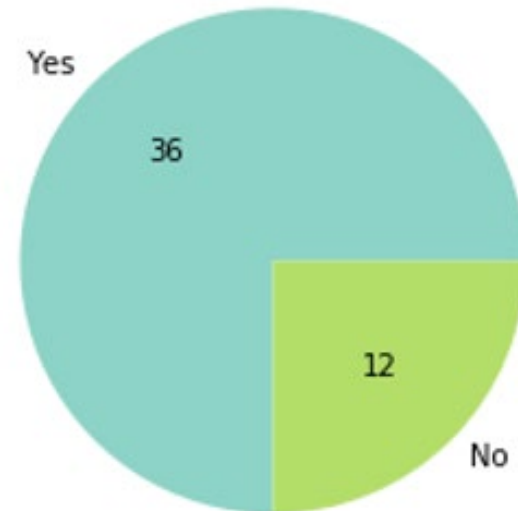
## Q11 - Should “of which” categories be created for Carbon capturing equipment and Nuclear Fusion equipment

### Yes – but...

- ✓ *“Nuclear fusion and the 4:th generation nuclear fission techniques are only on experimental stage. Still, we do not think it is a simple task to make a distinction between the structure and the equipment. We are unable to make that distinction for current installations in nuclear fission plants. We do not think there is a big difference whether the nuclear power plant is of fission or fusion type, they will be included in structures in both cases.”*
- ✓ *“First, all nuclear energy is currently produced by fission—there have been recent breakthroughs in achieving fusion energy but it will be decades before commercially viable. Second, what is meant by “equipment”? How is that distinguished from the installation—a power plant is not the same as equipment?”*

AN. 1133 Other machinery and equipment  
Of which: Carbon capturing equipment  
Of which: Nuclear Fusion equipment

- Yes
- No
- Not sure/I don't know



## Q12 - Should Mineral and energy reserves be broken down between “Non-renewable mineral and energy resources” and “Renewable mineral and energy resources?”

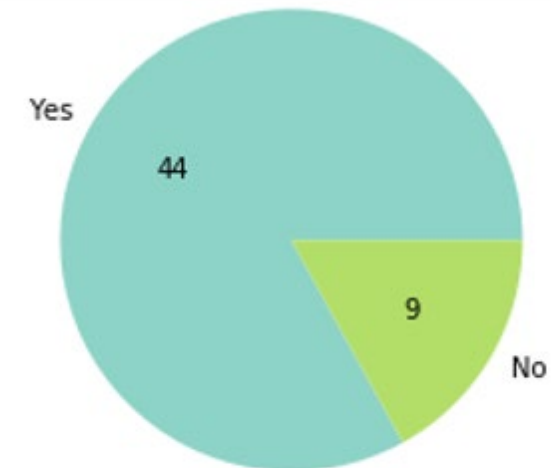
### Yes – but...

- ✓ *“As for renewable energy resources, we reiterated our points manifested in the answers to WS.11, that it is considered inappropriate to include them in the core national account because estimation errors should be large depending on assumptions in the estimation methodology including uncertain future projections for the costs and revenue.”*
- ✓ *“As stated in the questionnaire for W.8-10, question 7A (Do you agree to extend the asset boundary in monetary terms by including renewable energy resources as well?): No. In principle, we think that this is not meaningful. We do not influence the amount of wind or sun by converting it to energy. However, the value of land when using it for energy production (or alternative uses) might be further explored.”*

AN.2121 Non-renewable mineral and energy resources  
AN.21211 Oil resources  
AN.21212 Natural Gas resources  
AN.21213 Other mineral and energy resources

AN.2122 Renewable mineral and energy resources  
AN.21221 Wind energy resources  
AN.21222 Solar energy resources  
AN.21223 Water energy resources  
AN.21224 Geothermal energy resources  
AN.21225 Other renewable energy resources

- Yes
- No
- Not sure/I don't know



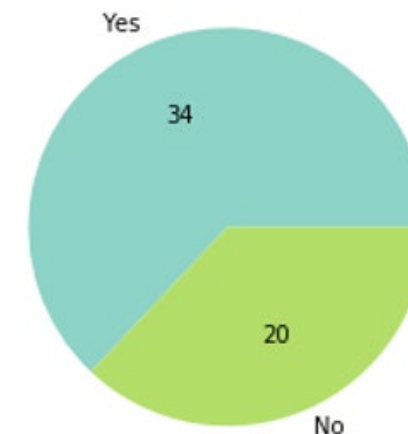


## Q13 - Should new classes for Human Capital (extension), Ecosystem (extension), and Social Capital (extension) be added to the existing SNA Asset classification hierarchy?

### Yes – but...

- ✓ **“The proposed natural capital categories are not exclusive. Timber, for example, is part of ecosystems and under natural resources. Natural resources and ecosystem services has some potential, but provisioning services includes harvest, so again there is a cross-classification. This would need to be worked out more clearly before being it the SNA.... ”**
- ✓ **“The proposed classification does not include existing non-produced non-financial assets like contracts, leases and licenses (currently AN.22) and transacted Goodwill (AN.23).We do not agree with including concepts such as Human Capital, Ecosystem Assets, and Social Capital in the core system classification. These should only be included in supplementary classifications as extensions.”**
- ✓ **“While conceptually we believe these new classes\concepts should be added, further consideration regarding definitions and measurement could possibly take place to ensure countries' ability to consistently measure said classes\concepts.”**

- Assets
- Financial Assets
  - Natural Capital
    - Natural Resources
    - Ecosystem Assets
  - Human Capital
  - Social Capital
  - Produced Capital (excluding produced natural resources)
- Yes  
 No  
 Not sure/I don't know

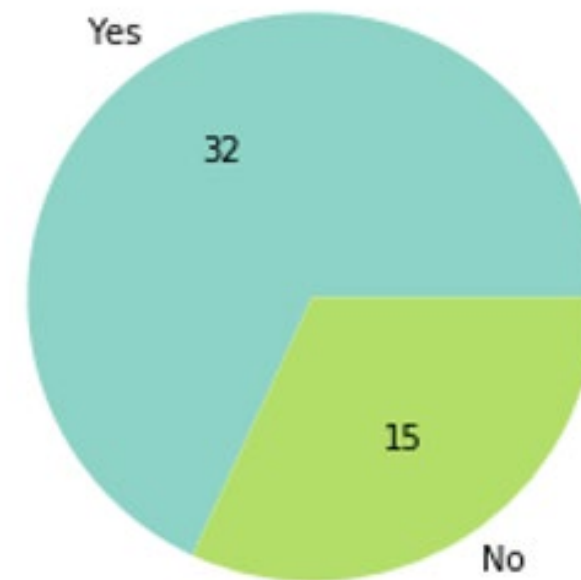




## Q14 - Should the concept of comprehensive wealth, i.e. the value of all assets (Financial Assets, Natural Assets, Human Capital, Social Capital, Produced Capital) that a nation has at its disposal for the well-being of its citizens and the sustainability of its activities, be included in the updated SNA?

### Yes – but...

- ✓ *“Secondly, properly defined “comprehensive wealth” requires that assets be valued at their “social price”, which often (always) differs from the observed market price. This is true of human and natural capital but should also be true of produced capital, by taking into accounts its externalities. “*
- ✓ *“Comprehensive wealth is an analytical concept. It is based on the idea that these forms are commensurable through monetisation, which can’t be justified based on measurement theory. Therefore, it is more appropriate for this to remain a use of the outputs of statistical frameworks. There are likely to be benefits from the formalisation of the relationship between the statistical frameworks, such as the SNA, and the concept of comprehensive wealth. More elaboration is required on what is meant by introducing the concept of comprehensive wealth in the updated SNA.”*
- ✓ *“Again, these terms are even less well defined than the vague ESG definition, and measurement of these is inappropriate for the SNA at this time. “Comprehensive” is also a term we should avoid, as national statistics should be clear that we cannot measure absolutely everything. The term “inclusive wealth” or similar would be better than “comprehensive wealth” if such a concept were to be included. “*



# Possible updates to the guidance note to address concerns raised.

- **Recommendation 1 – Non-MMF ESG Subsector:** Remove the recommendation to include a ESG institutional sub-sector in the SNA institutional sector classification system.
- **Recommendation 2,3,4 - Bonds, Loans and Equity:** Update the SNA to include definitions for ESG / Green Financial Investments and noted that these definitions may evolve over time and if needed updated definitions will be included in the SNA.
- Instead of adding ESG / Green – Bonds/Loans/Equity to the SNA Financial Asset classification system the updated SNA includes guidance (and an illustrative version) of how the Financial Asset Classification system can be presented on a functional basis (with ESG / Green instruments as the basis for the illustration).
- **Recommendation 5 – Resource Rent:** Update the SNA classification of transactions with slight modifications based on feedback from the global consultation to better align with SEEA.

# Possible updates to the guidance note to address concerns raised.

- **Recommendation 6,7,8 – Carbon pricing, Environmental Taxes and Subsidies:** Move forward with the recommendation to create a revenue from “carbon pricing mechanisms” aggregation. Include definitions for environmental taxes and subsidies in the updated SNA but do not embed these classes in the classification of transactions. Encourage countries to develop these aggregations when user demand exists and credible estimates can be created.
- **Recommendation 9,10,11 – Produced Assets:** Instead of adding classes of produced environmental purposed assets to the SNA transactions and classification system the updated SNA includes guidance (and an illustrative version) of how the produced asset classification system can be presented on a functional basis (with environmental purposed produced assets as the basis for the illustration).
- **Recommendation 13, 14 – Human, Social and Natural Capital, Inclusive Wealth:** The guidance note is updated to better reflect that Human capital, Social Capital and Ecosystem Capital are not part of the SNA asset boundary and that the term “inclusive wealth” is used to refer to the value of all assets that a nation has at its disposal for the well-being of its citizens and sustainability of its activities.



**Thank you!**

**Feedback?**