



STATISTICS

**INTER SECRETARIAT
WORKING GROUP ON
NATIONAL ACCOUNTS**

WS. 12 A proposal for adding environmental classes to the SNA classification systems

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Motivation

- Since the release of the System of National Accounts, 2008 (*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 focus on environmental protection, resource management and natural resource assets. They do not address emerging issues related to”
 - Biodiversity
 - Climate Change
 - Renewable resources
 - Waste and recycling activities
 - Energy Transition

Scope of the guidance note

- ✓ Considering the ISIC, CPC and COFOG classification systems are being updated and the update teams are addressing themes such as waste management, biodiversity, energy transition, natural resource management the proposals in this guidance note have been limited to possible updates to the 4 classification systems specific to the SNA:
 - ▶ 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).

Proposed updates to Institutional Sectors (S)

- ✓ The Paris Agreement on climate change requires countries to establish GHG emissions targets that will support a pathway towards a low-carbon posture and a more climate resilient economy. Substantial funding will be required to finance this transition.
- ✓ It is estimated that global investments required to achieve the Paris Agreement's temperature and adaptation goals range between US\$3 to \$6 trillion per year until 2050. Various approaches to finance climate mitigation measures and adaptation measures are envisioned and being adopted.
- ✓ While reporting mechanisms, classifications and regulations around sustainable finance / climate finance are in their infancy and are evolving it would be forward looking to include sustainability type sector and financial instruments detail in the next version of the SNA.

Proposed updates to Institutional Sectors (S)

- A recent trend among investors is to invest in environmental, social and governance (ESG) vehicles for which the purpose is to finance companies that incorporate ESG principles into their operations.
- It may be analytically useful to include new subsectors and financial instrument breakdowns related to environmental, social and governance (ESG) investment intentions given the likely growth in this type of financing over the next number of decades.
- One possible approach is to include an “of which” ESG category under subsector S124. While this does not capture all the ESG financing in the financial markets it would represent a key signal about investor intentions and the flow of capital to ESG purposes.
 - Non-MMF Investment Funds (S124)
 - Of Which – Environmental, social and governance Funds*
 - Of which – Climate Adaptation Investment Funds*

Proposed updates Financial Assets / Liabilities (AF)

- ✓ Updating the institutional sector classification is only one avenue to assist users to better understand the sources and uses of funds for ESG purposes. The sources and uses of funds for ESG purposes can also be viewed through financial instruments.
- ✓ More and more financial institutions are offering loans, bonds, and other securities in which the use of the funds raised through these offerings is restricted to ESG purposes. One option is to update the SNA financial instrument classifications to include ESG “of which” categories for the following instruments:
 - ✓ **Debt securities**
 - Of which: ESG bonds
 - Of Which: Green Bonds
 - ✓ **Loans**
 - Of which: ESG loans
 - Of Which: Green Loans
 - ✓ **Equity and investment fund shares**
 - Of which: ESG equity and investment fund shares
 - Of which: Green equity and investment fund shares


Proposed updates to Transactions (D)

- Currently the SNA recommends recording a single aggregate value for rent from all types of natural resources. Given the growing importance from users to understand the source of revenue from the use of natural resources it is proposed that sub-classes of rent be created for mineral resources, non-renewable energy resources and renewable energy resources (assuming the current recommendations related to renewable energy resources are endorsed).

Natural Resource Rent

Land
Non-renewable energy resources
Renewable energy resources
Mineral resources
Biological Resources
Water Resources
Other natural resources

Other Rent



Given natural resource rent may not be significant in many countries, countries would only provide detail where the flows are material.

Proposed updates to Transactions (D)

- ✓ It is becoming increasingly apparent that over the next number of years governments will need to establish carbon pricing mechanisms in order to combat the effects of climate change. Two of the more prevalent mechanisms include carbon taxes and emissions trading schemes.
- ✓ There are current discussions taking place as to whether ETS's are taxes on production or contracts, leases and licenses.
- ✓ Regardless of where ETS get placed within the SNA it would be useful for users if carbon pricing mechanisms were grouped together in a supplementary table.

Carbon Pricing Mechanisms

Carbon Taxes (by detailed type of tax)

Emissions Trading Scheme

Proposed updates to Transactions (D)

- In addition to developing a supplementary table on carbon pricing mechanisms it could be argued that classes related to environmental taxes and subsidies be added to the classification of transactions in the SNA.
- The SEEA-CF recommends countries report detailed environmental taxes and subsidies. Given the concept of environmental taxes and subsidies is well defined in SEEA-CF the question becomes whether this breakdown should also be recommended in the SNA.
- Given many countries are not yet publishing economic-environmental accounts and the need for this information is becoming increasingly important it is proposed that the SNA incorporate the SEEA-CF breakdown of environmental taxes and subsidies into the SNA classification of transactions.

Proposed updates to Transactions (D)

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

Subsidies

Subsidies on products

Of which: Environmental subsidies on products

Other subsidies on production

Of which: other environmental subsidies on production

“an environmental tax is a tax whose tax base is a physical unit (or a proxy of it) of something that has a proven, specific, negative impact on the environment.” SEEA CF.


SEEA CF breaks down environmental taxes into:

- ✓ Energy Taxes
- ✓ Transport Taxes
- ✓ Pollution Taxes
- ✓ Resource Taxes

Proposed updates to Stocks (AN)

- ✓ Over the next number of decades there is a strong indication that economies will transition towards increased use of renewable non-GHG emitting energy sources to meet the world's energy needs. This will require substantial capital investment as well as disinvestment in the form of the decommissioning of existing oil and gas infrastructure.
- ✓ It will be useful to trace this investment / disinvestment in the national accounts. One option to help monitor this transition is to add several “Of which” categories under the following fixed asset classes.

AN.1122 Other structures
 Of which: Renewable Energy Installations
 Of which: Fossil Fuel Installations
AN. 113 Machinery and Equipment
 AN.1131 Transport Equipment
 Of which: Non-gas-powered Transport Equipment
AN. 1133 Other machinery and equipment
 Of which: Carbon capturing equipment.



Given these expenditures may not be significant in many countries, countries should be encouraged to only provide detail where the expenditures are material.

Proposed updates to Stocks (AN)

- The SNA currently distinguishes between five types of natural resources: ***(1) Land, (2) Mineral and energy reserves, (3) Non-cultivated biological resources, (4) Water resources, (5) Other natural resources.***
- Given the changes proposed in WS GN.11 and the demand from users to monitor the energy transition should mineral and energy reserve subclasses be added to the SNA Asset Classification.

AN.212 Mineral and energy reserves

AN.XXXX Non-renewable mineral and energy resources

AN.2121 Oil resources

AN.2122 Natural Gas resources

AN.2123 Other mineral and energy resources

AN.XXXX Renewable mineral and energy resources

AN.2123 Wind energy resources

AN.2124 Solar energy resources

AN.2125 Water energy resources

AN.2126 Geothermal energy resources

AN.2127 Other renewable energy resources

Proposed updates to Stocks (AN)

- The WSTT guidance note on the recording of cultivated biological assets recommends that the current asset classes AN.115 – cultivated biological assets and AN.213 non-cultivated biological assets be grouped into a single asset class called Biological Resources.
- The guidance note on biological resources also recommends an updated breakdown of Biological Resources.

AN.33 Biological Resources

AN.331 Biological resources yielding repeat products

AN.3311 Animal resources yielding repeat products

AN.3312 Tree, crop and plant resources yielding repeat products

AN.332 Biological resources yielding once-only products.

AN.XXXX Migrating biological resources yielding once-only products

AN.XXXX Non-migrating biological resources yielding once-only products

AN3323 Work-in-progress on non-migrating biological resources

Currently within the SNA – Cultivated Biological Assets are classified under Produced Assets and Non-cultivated biological assets are classified under Non-produced assets.

Proposed updates to Stocks (AN)

Nonfinancial Assets

AN.XXXX Natural Resources

AN.XXXX Land

AN.XXXX Mineral and Energy Reserves

AN.XXXX Biological Resources

AN.XXXX Water Resources

AN.XXXX Other natural resources

AN.XXXX Produced Assets

AN.XXXX Non-produced Assets

AN.XXXX Contracts, leases and licenses

AN.XXXX Goodwill

- ✓ Should Natural Resources be moved out of the Non-produced asset class and be a class on its own?
- ✓ Does it make sense to still have a produced and non-produced split, or can we think of a more appropriate name that summarizes both?
- ✓ While we are at it should we also include Human capital and Social capital, and Ecosystem assets.

Proposed updates to Stocks (AN)

Assets

Financial Assets

Non-financial Assets

Natural Capital

Natural Resources

Ecosystem Assets

Human Capital

Social Capital

? Capital

- ✓ Should we use this as an occasion to introduce the concept of “comprehensive wealth” into the SNA.
- ✓ Comprehensive wealth “***the value of all assets a nation has at its disposal” for the well-being of its citizens and the sustainability of its activities.***”

(<https://www.jstor.org/stable/pdf/resrep21921.5.pdf>)

Questions for Discussion

- 1. Should ESG classes be added to the institutional sector classification as well as the SNA financial instrument classification.*
- 2. Should separate classes of resource rent be established for each natural resource asset recognized within the SNA asset classification?*
- 3. Do you agree that the revenue governments receive from carbon pricing schemes should be separately identified in the System of National Accounts?*
- 4. Do you agree that classes for Human Capital, Natural Capital and Social Capital should be added to the SNA Asset classification, signifying which components represent an extension of the asset boundary?*
- 5. Do you agree the concept of comprehensive wealth should be introduced into the updated SNA?*
- 6. Do you have any suggestions on a name for the category that combines together produced capital and the remaining non-produced capital?*