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Draft Guidance Note

Issue C.6:

Inclusion of potentially environmentally damaging subsidies/related transfers (in the SEEA Central Framework)

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GUIDANCE NOTE Issue C.6 “Inclusion of potentially environmentally damaging subsidies/related transfers (in the SEEA Central Framework)”

1 Introduction

1.1 Aim of the Guidance Note

The aim of this guidance note is to provide direction on the treatment of *Potentially Environmentally Damaging Subsidies (PEDS) and related transfers* in the update of the System of Environmental-Economic Accounting – Central Framework (SEEA CF). Specifically, the note addresses Issue C6: Inclusion of PEDS and related transfers in the SEEA Central Framework.

The purpose of PEDS within the SEEA CF is not to measure environmental impacts directly, nor to evaluate policy effectiveness, but to **integrate information on potentially harmful transfers into the broader system of environment–economy accounts**. This fulfils three analytical needs that cannot be met by existing inventories alone.

1. Integration of fiscal incentives within the economy–environment accounting system

PEDS enables users to analyse how government transfers influence production, consumption, resource use, and emissions within the same accounting framework that records physical flows, environmental assets, ecosystem condition, and environmental taxes. This integration allows analysts to identify how fiscal signals shape environmentally relevant behaviour, examine interactions between subsidies, taxes, and resource flows, and connect monetary incentives to environmental pressures recorded elsewhere in the SEEA.

2. Provision of a more complete and balanced view of environmental policy instruments

While the SEEA CF already records environmentally beneficial subsidies (ESST) and environmentally related taxes (ETEA), subsidies that support potentially environmentally damaging activities are not systematically covered. Including PEDS addresses this asymmetry and enables comparisons between environmentally beneficial and potentially harmful transfers, identification of mixed or contradictory policy signals, and analysis of the combined structure of fiscal incentives affecting environmental outcomes.

3. Ensuring international comparability within a standardised statistical framework

By embedding PEDS within the SEEA CF, countries can report potentially environmentally damaging subsidies using harmonised definitions, classifications, attribution rules, and timing conventions consistent with the SNA and SEEA. This allows internationally comparable analysis that is not dependent on policy framing or country-specific interpretations.

By addressing these three analytical needs, PEDS strengthens the SEEA CF’s ability to provide an integrated, neutral, and policy-relevant representation of the fiscal instruments that influence the relationship between the economy and the environment.

1.2 Background and Issue Description

The SEEA CF (2012) currently includes a short reference to PEDS but does not provide a definition. Paragraph 4.147 states that:

“The definition of environmental subsidies and similar transfers focuses on the government’s intention rather than on the effect on the environment arising from the use of the resources provided. Another perspective that may be taken is whether the size and structure of payments from governments are environmentally beneficial or environmentally damaging. A measure reflecting this perspective is the potentially environmentally damaging subsidy (PEDS), encompassing subsidies and similar transfers that support activities that are considered environmentally damaging. In some definitions, this measure also includes so-called implicit (or indirect) subsidies, such as preferential tax rates. A definition of PEDS is not included in the SEEA.” (SEEA CF, 2012, para. 4.147)

At present, the SEEA CF accounts explicitly for **environmental subsidies and similar transfers** (ESST), defined on the basis of government *intention/purpose* to support environmentally beneficial activities, and for **environmental taxes** (ETEA), defined according to their *effects* on the environment. PEDS are not explicitly described in the SEEA CF, although accounting practices and System of National Accounts (SNA) terminology provide the basis for their integration. Given the increasing demand for policy-relevant information on subsidies that may have adverse environmental impacts—such as fossil fuel subsidies—this omission represents a conceptual and practical gap in the current framework.

1.3 Motivation for Addressing the Issue

From the perspective of the SEEA CF, subsidies, taxes, and other transfers are key policy instruments that influence production and consumption decisions and, consequently, environmental outcomes. At present, the SEEA CF captures:

- Subsidies and transfers intended to promote environmental benefits (ESST)
- Environmentally related taxes (ETEA).

However, subsidies and transfers that may encourage environmentally damaging activities are not systematically included, despite their potential to significantly influence resource use, emissions, biodiversity and degradation. This omission creates an incomplete picture of policy interventions, as it prevents users of the SEEA CF from seeing the **full spectrum of transfers—environmentally beneficial, those with mixed intention/effect, and potentially damaging—clearly distinguished side by side**. Without this comprehensive view, it is difficult to analyse how different types of subsidies and taxes interact, to compare their relative magnitude and direction of influence, and to assess their combined implications for environmental–economic policymaking.

A consistent and comprehensive accounting of **all relevant transfers**—environmentally beneficial, mixed intention and effect, and potentially damaging—is essential to:

- Provide a balanced representation of the links between the economy and environment;
- Enable transparent, internationally comparable measurement of subsidies and transfers;
- Facilitate integrated policy analysis, including cross-country and intertemporal comparisons

The inclusion of PEDS in the SEEA CF is therefore a key prerequisite for developing **harmonised indicators** that can inform policy debates on subsidy reform, green budgeting, and the redirection of financial flows in support of sustainability.

1.4 Research Questions and Scope of the Note

The following research questions will guide the development of recommendations for the treatment of PEDS in the SEEA CF:

- a) **Definition** – What exactly are PEDS?
- b) **Criterion of identification** – It seems unlikely that PEDS can be assessed using the same intention- or purpose-based approach as ESST. Would a different criterion—such as effect, which is already applied to environmental taxes—be more appropriate?
- c) **Environmentally damaging activities/products** – What is environmentally damaging? Could a list approach be a solution for identifying PEDS activities and products in an international comparable way? And Could the ETEA Table 1 from the Eurostat ETEA Guidelines (doi: 10.2785/730717) be a starting point for such a list?
- d) **Interpretation of “potential”** – For what does the “potential” stand in PEDS?
- e, f) **Linkages with other environmental transactions** – How do PEDS relate to environmental taxes? And how do PEDS interacts with "Environmental Subsidies and Similar Transfers"?
- g) **Accounting treatment** – How should PEDS be accounted for?
- h) **Timing** – When should PEDS be accounted for?
- i) **Classification** – Could a classification improve the communication of PEDS? And could the classification of ETEA be a starting point for a PEDS classification?

Out of scope

Certain related issues are addressed separately within the SEEA CF update process and are not covered in detail in this note:

- **Issue C7 – Elaboration of environmental tax abatements.**
This issue concerns the treatment and classification of tax concessions that reduce environmentally related tax liabilities. Although closely related tax abatements are addressed in a dedicated guidance note.
- **Free allocation of emission trading permits (e.g., under the EU ETS), in cases where these allocations are treated as taxes rather than as assets in the SNA:**
The accounting treatment of free allowances, including whether they constitute tax exceptions or asset transfers, is examined elsewhere in the SEEA CF update. For their treatment, it is necessary to take into account not only the overall circumstances that led to the grant, but also the impact on overall emissions. As such, their detailed treatment is not covered in this note.

These linkages will be referenced where relevant to ensure overall coherence of the updated SEEA CF.

Drafting and Consultation Process for the Guidance Note

The preparation of this Guidance Note followed an iterative and consultative process. The draft team met to discuss the conceptual options and their underlying arguments, ensuring that all perspectives were considered. The lead author invited co-authors to contribute text where additional viewpoints—such as those from the Government Finance Statistics community—were needed. Co-authors were also offered the opportunity to provide feedback through individual calls at any stage of the drafting process.

Initial ideas emerging from the scoping note phase were discussed at the 2025 annual meeting of the London Group on Environmental Accounting, held in Tallinn. The evolving draft and its conceptual direction were subsequently presented to the SEEA CF Technical Committee prior to the completion of the first full draft, ensuring early engagement and alignment with ongoing SEEA revision work.

2 Review of existing measurement and research

2.1 Current Accounting Treatment in the SEEA Central Framework

The SEEA CF (2012) recognises that economic instruments shape economic behaviour, and that these behavioural changes, in turn, influence environmental outcomes. Two categories of such transactions are currently addressed explicitly:

- **Environmental subsidies and similar transfers (ESST):** The SEEA CF defines these as current or capital transfers that are intended to support activities which protect the environment or reduce the use and release of natural resources.
Current transfers directly affect the level of disposable income and are all transfers that are not transfers of capital. They consist of subsidies, social contributions and benefits and other current transfers. Capital transfers are transfers linked to the acquisition (or disposal) of fixed assets and they can be in cash or in kind. Capital transfers include investment grants and other capital transfers.
Transfers of these types are identified and classified as ESST based primarily on the *intention/purpose* of the transfer, i.e., whether the purpose of the subsidy is to encourage environmentally beneficial behaviour.
- **Environmental taxes (ETEA):** The SEEA CF defines and records these as based on the assumed *effects* of the tax, specifically whether the tax base is a physical unit (or proxy for a physical unit) of something that has a proven, specific, negative impact on the environment.

By contrast, **Potentially Environmentally Damaging Subsidies (PEDS)** are mentioned in the SEEA CF only in passing (para. 4.147). The text recognises that subsidies can also have adverse impacts on the environment—for instance, subsidies for fossil fuel consumption or production—and that it is possible to develop measures of PEDS. However, the SEEA CF does not provide a formal definition, classification, or accounting guidance for PEDS.

This asymmetry in the treatment of transfers leads to an incomplete representation of the overall policy landscape. While ESST and ETEA are visible within SEEA-based statistics, PEDS remain outside the structured framework. Consequently, users of the SEEA do not have access to a full picture of the fiscal instruments—both beneficial and potentially damaging—that shape economic behaviour and environmental pressures. This gap limits the ability to:

- assess the combined balance of government interventions across environmental domains;
- compare the relative scale of environmentally beneficial and potentially harmful measures;
- interpret SEEA monetary accounts in the context of policy discussions on fossil fuel subsidy reform, green budgeting, and the redirection of financial flows toward sustainability.

2.2 Links to Other Issues in the SEEA CF Update

The treatment of PEDS is closely related to several other issues under consideration in the SEEA CF update:

- **Issue A6:** Introduction of thematic accounts and strengthening the link to policy: PEDS classify subsidies as "potentially environmentally damaging", which allows to assess the potential influence of policies. By categorizing these transfers, PEDS provide a framework for monitoring policies and facilitating communication about their potential environmental effects. This strengthens the connection between policy objectives and environmental outcomes.

- **Issue C1:** Inclusion of the Classification of Environmental Purposes (revised CEA): The accounting and communication of PEDS could be enhanced by introducing a classification similar to the Classification of Environmental Purposes (CEP) or the classification already used by ETEA. This would provide a clearer framework for understanding the relationship between the environment and PEDS.
- **Issue C3:** Extending the scope of environmental activities: Since the PEDS definition classifies subsidies and similar transfers with potentially damaging effects on the environment, the PEDS concept should align with other definitions of environmental activities. This would ensure consistency across different concepts.
- **Issue C7:** Elaborating environmental tax abatements: Although tax abatements are treated as a separate issue in the SEEA framework, the underlying classification concept can still be applied to them. This is important because, regardless of their potential positive or negative environmental impacts, those with adverse environmental effects should be analyzed using the PEDS concept. Even if tax abatements do not meet the definition of subsidies under the SNA, they can influence economic activity and consumption behavior in ways similar to explicit subsidies. Therefore, they should be accounted for using the same conceptual approach as explicit PEDS.

In addition, there are important **cross-framework linkages**:

- **System of National Accounts (SNA):** The identification of subsidies and tax expenditures in the SNA provides the foundational concepts and data structures needed for recording PEDS in the SEEA. Consistency with the SNA treatment is critical to maintain integration.
- **Government Finance Statistics (GFS):** GFS provides a complementary view on subsidies, transfers, and tax expenditures from a public finance perspective. Alignment with GFS classifications would strengthen the policy relevance of PEDS accounts.
- **SEEA Ecosystem Accounting (SEEA EA):** PEDS accounting could inform analyses of pressures on ecosystems and support the design of instruments to reduce environmental degradation, creating a natural link with SEEA EA.

2.3 Existing Work, Research, and Estimates

Several international organisations and research initiatives have explored the measurement of environmentally harmful subsidies, providing a valuable foundation for the SEEA CF update:

- **OECD (2005, 2021, 2024, ongoing):**
The OECD has long contributed to methods for identifying and quantifying environmentally harmful subsidies, particularly in the energy and agricultural sectors. Early work such as *Environmentally Harmful Subsidies: Challenges for Reform* (2005) and later editions of the *Companion to the Inventory of Support Measures for Fossil Fuels* provided detailed typologies and country-level data on support measures. More recently, in 2024, the OECD developed the *Greenhouse Gas Emissions Mapping: Methodology for Climate-Change Mitigation and Mitigation-Relevant Policy*, a framework that links mitigation-relevant policies—including subsidies—to the activities and emissions they influence. Although not a subsidy inventory, this methodology demonstrates how policies can be classified according to their expected environmental effects, using activity characteristics and scientific evidence rather than measured impacts. This activity-based, assumed-effect logic is directly relevant for the SEEA CF update, as it shows that identifying potentially environmentally damaging subsidies is feasible even when detailed environmental outcome data are not available. The OECD’s broader methodological developments therefore provide a conceptual foundation that supports effect-based identification of PEDS within the SEEA framework. Further also the OECD can deliver inspiration for classifying PEDS, in to different kinds of pressure categories (1993).

- **International Monetary Fund (IMF):**
The IMF has conducted extensive work on fossil fuel subsidies, particularly through its *Energy Subsidy Reform: Lessons and Implications* (2013) and subsequent updates. The IMF distinguishes between *pre-tax* and *post-tax* subsidies, highlighting the fiscal, environmental, and social costs of continued fossil fuel support.
- **World Bank – Energy Subsidy Reform Facility (2014–2020):**
The World Bank has developed analytical tools and case studies to support governments in designing and implementing subsidy reforms, with particular attention to mitigating social impacts.
- **United Nations Environment Programme (UNEP) and the Biodiversity Finance Initiative (BIOFIN):**
UNEP and BIOFIN have advanced the assessment of biodiversity-harmful subsidies, providing methodologies for countries to identify, measure, and reform such transfers, for example (BIOFIN, 2024, *The Nature of Subsidies*) or SDG Indicator 12.c.1 which tracks subsidies for fossil fuels (UNEP, 2019).
- **London Group on Environmental Accounting (2013 – ongoing):**
Since 2013, the London Group has served as international discussion forum for exploring how environmentally harmful subsidies could be reflected in environmental-economic accounts. Early sessions examined conceptual distinctions between taxes, subsidies, and implicit support measures, laying the groundwork for later debates on defining and identifying potentially environmentally damaging subsidies (PEDS). Over the years, the Group has revisited these issues regularly.
- **European Union and Eurostat:**
The EU, through Eurostat, has developed methodological handbooks and guidance materials for the measurement of environmentally related taxes and subsidies, including potentially environmentally damaging subsidies (Eurostat, 2023). These efforts offer tested classifications and data structures that can directly inform the SEEA CF update. In particular, the identification of taxes with a detrimental impact on the environment is based on a list of specific tax bases, providing a transparent and comparable approach across countries.
- **Academic literature:**
A growing body of research has examined the economic, environmental, and social impacts of subsidies in sectors such as fossil fuels, fisheries, and agriculture. Gonon et al. (2025), Reyes-Garcia (2025)

Together, these initiatives provide a robust evidence base and practical methods for identifying, classifying, and quantifying PEDS. They also demonstrate that PEDS accounting is feasible, policy-relevant, and increasingly demanded at both national and international levels.

3 Conceptual basis and proposed approach

What is meant by ‘environmentally damaging’ in PEDS?

Environmental damage, in the SEEA context, refers to adverse changes in the **quantity, quality, or condition** of environmental assets and ecosystems resulting from **human activities**. In this guidance note, however, the term “environmentally damaging” is used operationally to refer to products and activities that are **recognised as exerting negative environmental pressures** that can contribute to such adverse changes. Within the SEEA Central Framework, environmental damage encompasses the depletion of natural resource stocks, deterioration of environmental quality due to residual flows, and declines in ecosystem condition that reduce the capacity of ecosystems to supply services on a sustainable basis. Importantly, damage to any single environmental asset or domain is sufficient for an activity to be considered environmentally damaging; it is not necessary for multiple assets to be affected.

Environmental damage occurs when human activities lead to:

1. **Depletion of natural resource stocks**, where extraction or harvest exceeds natural regeneration or recharge.
2. **Degradation of environmental quality**, including increases in emissions, waste, or other residual flows that surpass the assimilative capacity of environmental systems.
3. **Decline in ecosystem condition**, reflected in changes to biophysical characteristics, ecological integrity, or ecosystem functioning.
4. **Reduced capacity of ecosystems to supply services**, resulting from sustained pressures or the loss of ecological structure and functions.

In the context of the SEEA, environmental damage can be described in terms of a sequence commonly used in environmental accounting:

- **Anthropogenic pressures** such as extraction, land use or land-use change, and the release of residuals.
- **Observable changes in the condition of environmental assets or ecosystems**, including reduced resource stocks, lower environmental quality, or declines in ecosystem condition indicators.
- **Consequences for ecosystem functioning and the supply of ecosystem services**, such as diminished productivity, weakened regulating capacity, or increased vulnerability to further degradation.

Framed in this way, environmental damage refers to quantifiable biophysical changes to environmental assets or ecosystems that reduce their capacity to support economic and ecological processes over time.

A subsidy qualifies as potentially environmentally damaging only if it is directly linked to an activity that meets the environmental damage criteria. General or non-targeted transfers—such as broad income support or unconditional payments to entire sectors—do not fall under this category, as they do not specifically incentivise or increase environmentally damaging pressures. Only subsidies that explicitly promote, increase, or maintain activities associated with resource depletion, environmental degradation, hazardous substance releases, biodiversity loss, ecosystem impairment, or contributions to biophysical tipping risks are considered potentially environmentally damaging.

The identification of environmentally damaging activities is a central step in determining which transfers qualify as PEDS. Within the SEEA framework, identification follows an assumed-effect logic grounded in recognised environmental pressures. Activities are considered environmentally damaging where they are widely acknowledged, on the basis of established scientific evidence, to exert specific negative environmental pressures.

For operational implementation, this conceptual principle is applied through an internationally maintained reference list.

This approach ensures that PEDS captures transfers linked to activities that exert recognised environmental pressures while maintaining consistency, transparency, and statistical robustness across countries.

Operational Identification through an Internationally Maintained Reference List

Identification follows the definition of PEDS, grounded in recognised environmental pressures. The internationally maintained reference list operationalises this definition and serves as the primary identification mechanism. As an operational starting point, the list of environmental tax bases used in ETEA provides the reference framework.

This list is embedded in the SEEA architecture through ETEA and was developed on the basis of established scientific evidence, initially through OECD work and subsequently operationalised by Eurostat and national statistical offices. It identifies products and activities widely recognised as exerting specific negative environmental pressures. Using this reference ensures that PEDS relies on the same assumed-effect logic that underpins environmentally related taxes.

Under this approach, the damaging characteristic of the supported activity is attributed on the basis of internationally recognised scientific evidence rather than evaluated case by case. A transfer is classified as PEDS when it directly supports an activity included in the reference list, without requiring compilers to demonstrate realised environmental damage in each national circumstance. This ensures international comparability, reduces analytical burden, and limits scope for political reinterpretation.

Aligning PEDS with the ETEA reference logic also ensures conceptual coherence across SEEA monetary accounts. Environmental taxes, environmental tax abatements, and PEDS rely on the same underlying definition of environmentally damaging activities, enabling consistent side-by-side analysis of fiscal instruments that increase, reduce, or sustain the cost or quantity of those activities.

The SEEA CF should articulate the conceptual principles for identifying environmentally damaging activities, while the operational reference list remains maintained outside the core framework. This preserves the stability of the SEEA CF while allowing scientific updates and extensions over time, including potential expansion to domains such as biodiversity, hazardous chemicals, diffuse pollutants, land-use change, and ecosystem condition.

Strict mechanical application of a list is nevertheless not sufficient in all circumstances. Environmental pressure may depend on biophysical context, scale, or environmental constraints. Therefore, limited and structured contextual qualification is permitted under clearly defined conditions.

Adjustments may occur only in exceptional cases:

- A listed activity may be excluded where it can be demonstrated that the associated environmental pressure is not materially relevant under specific local biophysical conditions.
- A non-listed activity may be included where a subsidy directly supports an activity that generates a scientifically demonstrable and materially significant environmental pressure in the circumstances in which it occurs.

In all cases, classification requires a clear and direct link between the transfer and the activity generating the environmental pressure. Diffuse upstream, indirect, or economy-wide effects are not sufficient grounds for inclusion. General income support or broad sectoral transfers without conditional linkage to a specific activity do not qualify as PEDS.

All deviations from the internationally maintained reference list must be transparently documented and reported as memorandum items. This ensures that the internationally comparable list-based core of the PEDS account remains intact while allowing countries to reflect environmentally material local circumstances.

This structured approach balances international consistency with environmental integrity. It maintains a scientifically grounded identification mechanism, preserves coherence with environmental taxes and tax abatements, and allows carefully constrained contextual qualification where justified, without expanding PEDS into a general account of all transfers that may indirectly affect the environment.

3.1 What Exactly Are PEDS?

The definition of PEDS determines the population of transfers included in the account and ensures conceptual consistency with the SEEA Central Framework (SEEA CF) and the System of National Accounts (SNA).

PEDS are defined within the same population of transactions as Environmental Subsidies and Similar Transfers (ESST), namely subsidies and similar transfers as defined in the SNA. This includes explicit subsidies (D.3), social benefits to households (D.6) where relevant, investment grants (D.9), and other current and capital transfers (D.7), provided that they directly support activities recognised as exerting negative environmental pressures.

Implicit forms of support—such as environmental tax abatements or preferential tax treatments—are not included within PEDS, as their conceptual and statistical treatment is addressed separately under Issue C7. However, the identification criteria developed for PEDS are formulated in a manner that allows analytical consistency with tax abatements, ensuring coherence across fiscal instruments.

By adopting the same SNA-based population of transactions as ESST, the PEDS account preserves internal consistency within the SEEA CF and ensures that environmentally beneficial and potentially environmentally damaging transfers are drawn from an identical statistical universe.

To ensure transparency and analytical flexibility, compilers should report the underlying SNA transaction codes together with the PEDS classification. This enables data users to apply alternative or more restrictive interpretations where required, without compromising the core statistical framework.

Although ESST and PEDS rely on the same SNA-based population of transfers, their monetary aggregates must not be interpreted as opposing environmental magnitudes. Subtracting PEDS from ESST does not produce a measure of net environmental impact. Monetary values reflect fiscal support, not quantified environmental outcomes. Accordingly, ESST and PEDS should be interpreted as complementary indicators of fiscal incentives and disincentives within the economy–environment system, rather than as offsetting measures of environmental performance.

3.2 Criterion for Identifying PEDS — Assumed Effect-Based Approach

The SEEA Central Framework defines Environmental Subsidies and Similar Transfers (ESST) on the basis of government intention or purpose. Transfers are classified as ESST when they are explicitly designed to support environmental protection or the sustainable management of natural resources. This purpose-based logic is appropriate for identifying environmentally beneficial measures, as it reflects the policy objective underlying the transfer.

However, this approach is not suitable for identifying potentially environmentally damaging subsidies. In practice, governments do not design subsidies with the explicit intention of causing environmental harm. Environmentally damaging effects typically arise as unintended consequences or as trade-offs accepted in pursuit of other objectives, such as economic growth, employment, energy security, or regional development. An intention-based

definition of PEDS would therefore capture only a very narrow and unrepresentative subset of environmentally harmful support measures.

Moreover, applying an intention-based criterion to PEDS would create a structural risk of greenwashing within the accounting framework. Because policy purpose is articulated in legal texts and official justifications, governments could frame measures with negative environmental effects as serving environmental or transition-related objectives. Such framing would allow environmentally damaging transfers to be excluded from the PEDS account based solely on stated intention, even where the supported activity is widely recognised as environmentally harmful. This would undermine transparency, weaken international comparability, and compromise the credibility of the SEEA as an objective statistical standard.

For these reasons, PEDS should be identified using an assumed effect-based criterion. Under this approach, a subsidy is classified as PEDS when it supports products, activities, or infrastructures that are internationally recognised as exerting specific negative environmental pressures. The damaging characteristic is attributed to the supported activity itself, based on established scientific evidence, rather than inferred from the stated purpose of the transfer.

This effect-based logic is consistent with the treatment of environmentally related taxes (ETEA) within the SEEA CF. ETEA are defined by reference to tax bases that represent physical units (or proxies) of activities known to have negative environmental effects. Aligning PEDS with this same assumed-effect logic ensures conceptual symmetry across fiscal instruments: environmental taxes raise the price of damaging activities, while PEDS lower their price. Applying a common criterion strengthens analytical coherence and allows taxes, tax abatements, and subsidies to be examined side by side.

Importantly, the assumed-effect approach does not require measuring actual environmental outcomes in each national circumstance. Instead, identification follows internationally agreed conceptual criteria grounded in recognised environmental pressures. These criteria are operationalised through a common reference list, ensuring that all countries apply the same environmental logic in practice. This structure is essential for achieving a transparent and internationally comparable account of environmentally damaging fiscal support.

For these reasons, PEDS should be defined and identified using an assumed effect-based criterion, rather than an intention- or purpose-based approach.

3.3 Linkages between PEDS, ETEA, and Tax Abatements

Following the conceptual approach developed in this guidance note, the introduction of PEDS would not lead to inconsistencies with the Environmental Taxes Account (ETEA). On the contrary, it reinforces the internal coherence of SEEA monetary accounts.

PEDS are identified using the same assumed-effect logic that underpins ETEA. Environmental taxes are defined by reference to tax bases representing products or activities that are internationally recognised as exerting specific negative environmental pressures. By applying this same reference logic to subsidies, PEDS classify transfers that lower the price of those same environmentally damaging activities.

Under this aligned framework:

- Environmental taxes increase the cost of environmentally damaging activities.
- Environmental tax abatements reduce that cost.
- PEDS provide financial support that lowers or sustains the cost of those activities.

The treatment of environmental tax abatements is structurally dependent on the ETEA framework, as abatements must follow the same tax-base classification and timing conventions as the taxes they modify. Aligning PEDS with this same underlying reference logic ensures conflict-free integration across all three fiscal instruments. Taxes, tax abatements, and subsidies can therefore be analysed side by side within a unified conceptual structure.

If PEDS were defined using a different concept of environmental damage than that applied in ETEA, inconsistencies would arise not only between taxes and subsidies, but also in the integration of the tax abatement module. Such fragmentation would weaken analytical coherence and undermine international comparability. Following the approach outlined here, however, these conflicts do not emerge.

The proposed treatment therefore enables seamless integration of PEDS within the SEEA CF monetary architecture, preserving conceptual symmetry, analytical clarity, and consistency across fiscal instruments.

3.4 Linkages between PEDS and Environmental Subsidies and Similar Transfers (ESST)

The integration of PEDS into the SEEA CF necessarily results in overlap with Environmental Subsidies and Similar Transfers (ESST). This overlap is not a methodological flaw but a logical consequence of applying two fundamentally distinct classification criteria within the same accounting framework.

ESST are defined on the basis of policy intention or purpose, whereas PEDS are defined on the basis of assumed environmental effect. While purpose and environmental effect may coincide in some cases, they are not equivalent and are not systematically aligned. A measure may pursue an environmental objective while supporting an activity that is internationally recognised as exerting environmental pressure. Conversely, a measure without explicit environmental purpose may support such an activity.

Because intention and assumed environmental effect represent conceptually distinct and non-commensurable classification variables, they cannot be reconciled through prioritisation, offsetting, or proportional allocation. Environmental pressures within the SEEA CF are treated as nominal categories rather than quantities that can be weighted or traded off against one another. Any attempt to split or net transfers between ESST and PEDS would therefore introduce implicit value judgements that fall outside the mandate of official statistics.

For these reasons, overlap is the only logically consistent and statistically robust solution. Transfers that meet both criteria remain recorded in ESST according to their purpose-based definition and are simultaneously identified as PEDS-relevant through flags or memorandum items. No transfer is double-counted; the overlap is displayed rather than resolved.

This structure offers analytical advantages. It captures the multidimensional nature of environmental policy without requiring statisticians to determine whether an environmental purpose outweighs an associated environmental pressure. Cross-tabulations between ESST purpose categories and PEDS environmental pressure categories can enhance transparency by distinguishing transition cases from structurally conflicting measures. Users who do not wish to analyse overlap cases may exclude flagged items, while others may examine the interaction between purpose and pressure in greater detail.

The overlap is therefore not merely a technical compromise but a core analytical feature of the PEDS framework. It preserves the internal coherence of both ESST and PEDS while making policy complexity transparent.

To support the internal logic bridging tables form a standard analytical component of the approach. These tables present the subset of transfers that satisfy both the ESST and PEDS criteria. All such transfers are **recorded in the ESST account**, following the SEEA CF rule that environmental purpose determines the primary classification. These transfers are **not recorded in the PEDS account**, but are **flagged as PEDS-relevant** because they also meet the effect-based criterion. No transfer is double-counted.

Two complementary bridging tables may be compiled to show this overlap clearly:

- **A PEDS-perspective bridging table**, presenting all transfers that meet the PEDS criterion but are recorded in ESST because they fulfil the environmental-purpose criterion. These entries are shown with their ESST purpose classification (CEP).
- **An ESST-perspective bridging table**, presenting the same overlapping transfers but grouped according to their PEDS effect-based classification (e.g., environmental domain or pressure category). This allows users to see which ESST measures are associated with potentially damaging activities.

Together, these bridging tables provide a transparent representation of the overlap between purpose-based and effect-based classifications. They do not imply any assessment of environmental effectiveness or policy performance; rather, they acknowledge that many real-world transfers involve environmental trade-offs or mixed characteristics that cannot be captured by a single classification criterion.

PEDS Items in ESST (Purpose View)

Transfer	SNA Type	CEP 01	CEP 02	CEP ...	CEP 08	Total per Transfer
Subsidy for hydrogen-ready gas power plant	D.3 Subsidies	xxx	xxx	xxx	xxx	xxx
Support for LNG truck fleet renewal	D.3 Subsidies	xxx	xxx	xxx	xxx	xxx
Grants for Euro VI diesel buses in public transport	D.9 Capital Transfer	xxx	xxx	xxx	xxx	xxx
Subsidy for district heating transition (gas-based)	D.3 Subsidies	xxx	xxx	xxx	xxx	xxx
Support for biomass co-firing in coal plants	D.3 Subsidies	xxx	xxx	xxx	xxx	xxx
Investment grant for gas distribution network upgrade	D.9 Capital Transfer	xxx	xxx	xxx	xxx	xxx
TOTAL		Σ	Σ	Σ	Σ	Σ

ESST Items in PEDS (Effect View)

Transfer	SNA Type	Amount	PEDS Domain
Subsidy for hydrogen-ready gas power plant	D.3 Subsidies	yyy	Energy
Support for LNG truck fleet renewal	D.3 Subsidies	yyy	Transport
Grants for Euro VI diesel buses in public transport	D.9 Capital Transfer	yyy	Transport
Subsidy for district heating transition (gas-based)	D.3 Subsidies	yyy	Energy
Support for biomass co-firing in coal plants	D.3 Subsidies	yyy	Energy
Investment grant for gas distribution network upgrade	D.9 Capital Transfer	yyy	Energy
TOTAL		Σ	Σ per Domain

3.5 Accounting Treatment

In integrating PEDS into the SEEA Central Framework, the allocation of transfers must follow the accounting principles of the System of National Accounts (SNA). PEDS should therefore be attributed to the institutional unit that ultimately benefits economically from the transfer, classified by institutional sector and industry. This ensures full consistency with SNA recording rules and with existing SEEA monetary accounts, including ESST and ETEA.

Under the SNA, subsidies and transfers are recorded for the unit whose production, income, or consumption is affected, rather than for any intermediary that may physically receive the payment. For example, if a subsidy intended to reduce household energy costs is paid directly to an energy provider for administrative reasons, the economic beneficiary remains the household sector. The same logic applies to PEDS.

This SNA-consistent allocation ensures conceptual symmetry across fiscal instruments. Environmental taxes are recorded for the unit that bears the economic burden of the tax, not for the unit that remits it. Environmental tax abatements follow the same logic. Allocating PEDS to the economic beneficiary preserves this symmetry and allows meaningful comparison between taxes, tax abatements, and subsidies within the SEEA framework.

Alternative allocation approaches were considered but are not appropriate for the core SEEA account.

One alternative would attribute PEDS to the administrative recipient of the payment. While this approach may appear straightforward from a budget execution perspective, it diverges from SNA principles and would create inconsistencies with the recording of ESST and ETEA. It would distort the representation of which sectors are economically supported and weaken analytical coherence across fiscal instruments.

Another alternative would allocate PEDS to the units whose behaviour the subsidy is intended to influence, irrespective of economic incidence. While such a behavioural perspective may be analytically useful in specific policy studies, it relies on interpreting policy intent and behavioural pathways that are not observable within standard fiscal data. It therefore cannot be applied consistently or objectively across countries and does not meet the requirements of an internationally comparable statistical account.

For these reasons, allocation of PEDS to the economic beneficiary, consistent with SNA principles, is the only statistically sound and conceptually coherent approach for integration into the SEEA CF. Alternative perspectives may be explored in supplementary analytical work, but they should not form the basis of the core accounting treatment.

3.6 Timing

For integration into the SEEA Central Framework, PEDS should be recorded on an accrual basis, consistent with the SNA. Transfers are recorded in the period in which the entitlement arises and the government's obligation is established, rather than when cash is disbursed.

Accrual recording ensures full consistency with SNA principles and alignment with existing SEEA monetary accounts, including ESST ETEA. Environmental taxes and tax abatements are recorded on an accrual basis; applying the same timing convention to PEDS preserves conceptual symmetry across fiscal instruments. It also ensures coherence with supply–use tables and the broader sequence of national accounts.

Recording PEDS on a cash basis would create inconsistencies with SNA methodology and could distort time series where payments are delayed, advanced, or bundled. For this reason, cash-based timing is not appropriate for the core SEEA presentation of PEDS.

While accrual recording is required for the core account, supplementary analytical presentations may, where relevant, link PEDS to the period in which the underlying environmentally relevant activity occurs. Such activity-based timing perspectives can support policy analysis by highlighting the interaction between fiscal incentives and environmental pressures within a given year. However, this analytical perspective may require additional assumptions and does not replace accrual-based recording within the official accounting framework.

The core PEDS account should therefore follow accrual-based timing consistent with the SNA, with any alternative timing views presented only as supplementary analytical information.

3.7 Classification

Use the existing ETEA domain structure as the PEDS classification (first-level)

The PEDS account could adopt the environmental domain structure used in the ETEA as its primary and mandatory classification dimension. Each potentially environmentally damaging subsidy or similar transfer is assigned to one environmental domain, reflecting the main activity or policy area in which the subsidised activity operates and from which the assumed damaging environmental effect originates.

The environmental domain classification is activity-oriented and groups measures according to broad areas of environmental pressure, such as energy use, transport activity, pollution, or resource extraction. By applying the same domain structure as in the ETEA, this option ensures full coherence across SEEA CF monetary accounts, enabling direct comparison of environmentally related taxes, tax abatements, and potentially environmentally damaging subsidies within the same environmental domain.

This alignment supports the analysis of net fiscal signals at the domain level, for example by comparing tax revenues and subsidy support associated with energy use, transport activity, or pollution. It also allows countries to integrate the PEDS account into existing SEEA CF table structures with minimal additional compilation burden, as compilers can reuse established ETEA codes and reporting practices.

Typical environmental domains may include:

- Energy
- Transport
- Pollution
- Resources

These domains reflect widely recognised scientific categories and provide a stable and easily interpretable first-level structure for the PEDS account.

It is recognised that some transfers may be associated with more than one environmental domain. For reporting purposes, each PEDS item is assigned to a single primary environmental domain, determined by the dominant

activity or environmental area to which the supported measure relates. This follows established SEEA CF practice and ensures consistency and comparability across countries.

Given that the ETEA environmental domain structure is currently under review as part of the SEEA CF update, this provides an opportunity to harmonise the domain classification for environmental taxes, environmental subsidies and similar transfers, tax abatements, and PEDS within a coordinated framework. Such harmonisation would strengthen conceptual coherence across SEEA monetary accounts and ensure that the domain structure remains analytically meaningful and sufficiently comprehensive.

While the domain-based classification identifies the policy or activity area in which environmental pressure arises, it does not in itself describe the specific type of biophysical pressure involved. To enhance analytical transparency, an additional Environmental Pressure Category (EPC) classification may be adopted as a supplementary analytical layer.

Under this approach, the environmental domain remains the mandatory primary classification. The EPC layer provides additional information on the type of environmental pressure through which the potentially damaging effect is assumed to arise (e.g. greenhouse gas emissions, air pollutants, water abstraction, land-use change, hazardous substances). The EPC classification supports analytical linkage with SEEA physical flow and ecosystem accounts but does not alter the primary domain assignment or result in double counting.

The EPC layer is intended as an analytical enhancement rather than a structural requirement of the PEDS account. It may be introduced progressively as methodological experience develops and data availability allows.

Specifically, each PEDS item is first classified by environmental domain following the ETEA structure. In addition, one or more EPCs may be recorded to describe the characteristic environmental pressure associated with the subsidised activity. The domain classification identifies the activity or policy area, whereas the EPC classification explains the mechanism of environmental pressure.

The EPC framework is grounded in well-established concepts from environmental statistics and SEEA CF physical flow accounts and focuses on pressures rather than outcomes. It does not involve the measurement of environmental state changes, impacts, or damages. Instead, it reflects an assumed and widely recognised link between certain activities, products, or infrastructures and specific types of environmental pressure.

Indicative examples of Environmental Pressure Categories include:

- Greenhouse gas emissions
- Air pollutants (e.g. NO_x, SO₂, particulate matter)
- Nutrient pollution and eutrophication
- Water abstraction and depletion
- Land-use change and soil degradation
- Hazardous substances and chemical pollution
- Waste generation and material throughput
- Resource over-extraction (e.g. fish stocks, timber, minerals)
- Habitat loss and fragmentation

Where a transfer is associated with multiple pressure types, a primary EPC should be identified based on the dominant or most policy-relevant pressure. Additional EPCs may be recorded as supplementary information

where this enhances analytical usefulness, without affecting the primary classification or leading to double counting. Where analytically meaningful, transfers may also be apportioned across pressure types, following transparent and consistently applied criteria.

The EPC layer is fully consistent with the SEEA CF physical flow and ecosystem accounting frameworks and enables users to analytically link monetary information on potentially environmentally damaging subsidies with physical indicators of environmental pressure. Importantly, this linkage is analytical only and does not require integration of monetary and physical accounts or the quantification of environmental effects.

By combining a domain-based primary classification with a pressure-based analytical extension, this two-dimensional approach enhances the explanatory power of the PEDS account while preserving simplicity, coherence, and full compatibility with the broader SEEA CF monetary framework.

3.6 For what does the “potential” stand in PEDS?

The term “potentially” in Potentially Environmentally Damaging Subsidies (PEDS) is retained as an essential conceptual element of the definition.

PEDS are identified using an assumed-effect approach. Subsidies are classified according to whether they support products, activities, or infrastructures that are internationally recognised as exerting specific negative environmental pressures. The SEEA framework does not measure the realised environmental impact of each individual transfer, nor does it attempt to attribute observed environmental damage to specific fiscal measures. In practice, statisticians cannot empirically demonstrate that a particular subsidy has directly caused a specific environmental outcome. Environmental pressures arise from complex interactions among economic activity, technology, regulation, and behavioural responses. For this reason, classification must rely on the recognised environmental characteristics of the supported activity, rather than on proof of actual damage in each case. The qualifier “potentially” reflects this methodological reality. It signals that the damaging characteristic is attributed to the supported activity on the basis of established scientific knowledge, not derived from case-by-case impact assessment.

The term also recognises that environmental consequences may vary across biophysical, technological, and economic contexts. While an activity may be generally associated with environmental pressure, the magnitude or manifestation of that pressure can differ across countries and circumstances.

Furthermore, environmental pressures within the SEEA Central Framework are treated as nominal categories. There is no universal metric that allows different types of environmental pressure—such as greenhouse gas emissions, water abstraction, land-use change, or biodiversity loss—to be aggregated or weighted. The qualifier therefore prevents the PEDS concept from implying a quantified or definitive assessment of environmental harm. Removing the term “potentially” would risk suggesting that the SEEA measures actual environmental damage caused by specific subsidies. Such an interpretation would exceed the statistical scope of the framework and blur the distinction between classification and impact evaluation.

For these reasons, the term “potentially” is retained. It reflects the assumed-effect methodology, acknowledges the limits of statistical attribution, and safeguards against misinterpretation of PEDS as a measure of proven environmental damage.

4 Recommendations on Conceptual Treatments

The following recommendations are proposed for integrating Potentially Environmentally Damaging Subsidies (PEDS) into the SEEA Central Framework (SEEA CF). These proposals reflect the conceptual analysis presented in Section 3 and are submitted for consideration in the Global Consultation process.

4.1 Definition and Scope

It is proposed that the SEEA CF include a formal definition of PEDS within Chapter 4 (Environmental transactions), alongside Environmental Subsidies and Similar Transfers (ESST) and Environmental Taxes (ETEA).

Proposed Definition

Potentially Environmentally Damaging Subsidies (PEDS) are explicit subsidies and similar transfers, within the scope of the System of National Accounts (SNA), that directly influence the price or quantity, or a proxy for quantity, of a specific product, activity, or infrastructure associated with recognised negative environmental pressures. Identification follows an assumed-effect approach and is independent of the stated policy purpose of the transfer.

A subsidy is considered to have a direct link to an activity or product when the conditions of the transfer are causally related to the volume, output, input use, capacity, or continued operation of that activity or product. Examples include transfers that:

- vary with the level of production, consumption, or installed capacity of the activity;
- are conditional upon engagement in the activity;
- reduce the marginal cost of producing, using, or investing in the activity or infrastructure integral to it.

General or non-targeted transfers without a direct conditional link to a specific activity or product are not classified as PEDS.”

4.2 Conceptual Alignment with ETEA and Environmental Tax Abatements

PEDS should follow the same assumed-effect logic as environmentally related taxes (ETEА). Environmental taxes are defined by reference to tax bases representing products or activities recognised as exerting negative environmental pressures. Applying the same reference logic to subsidies ensures conceptual symmetry across fiscal instruments.

Under this aligned framework:

- Environmental taxes increase the cost of environmentally damaging activities.
- Environmental tax abatements reduce that cost.
- PEDS provide explicit financial support that lowers or sustains the cost or quantity of those activities.

This alignment enables conflict-free integration of PEDS with both ETEA and any future environmental tax abatement module (Issue C7). It preserves a unified definition of environmentally damaging activities within SEEA monetary accounts and avoids fragmentation across fiscal instruments.

4.3 Treatment of Overlap with ESST

The overlap approach is recommended as the appropriate method for integrating PEDS alongside ESST.

ESST are defined on the basis of policy intention, whereas PEDS are defined on the basis of assumed environmental effect. These represent distinct conceptual dimensions and cannot be prioritised, offset, or split without introducing normative judgement or compromising statistical consistency.

Under the recommended treatment:

- Transfers that meet both criteria remain recorded in ESST according to their purpose-based classification.
- These transfers are additionally identified as PEDS-relevant through a flag or memorandum item.
- No transfer is double-counted.
- No split allocation is applied.

This approach preserves the integrity of both classifications while ensuring transparency regarding multidimensional characteristics of fiscal measures.

4.4 Allocation and Timing

PEDS should be allocated and recorded in accordance with SNA principles.

Allocation

Transfers shall be attributed to the institutional unit that is the economic beneficiary of the subsidy, classified by institutional sector and industry. This ensures consistency with SNA recording rules and alignment with ESST and ETEA.

Timing

PEDS shall be recorded on an accrual basis, consistent with the SNA. Transfers are recorded in the period in which the entitlement arises and the government's obligation is established.

Accrual recording ensures coherence with supply–use tables and other SEEA monetary accounts. While supplementary analytical presentations linking transfers to the period of the underlying environmentally relevant activity may enhance policy analysis, such perspectives do not replace accrual-based recording in the core SEEA framework.

4.5 Classification

For reporting and analytical purposes, PEDS should adopt the environmental domain classification used for ETEA as the primary classification structure. This ensures coherence across environmental taxes, tax abatements, and subsidies.

In addition, a more detailed analytical classification reflecting specific environmental pressure categories may be developed as a supplementary layer. Such an extension could enhance transparency regarding the type of environmental pressure associated with each transfer, while preserving the simplicity and comparability of the primary domain-based structure.

4.6 Implications for Other Issues in the SEEA CF Update

The proposed treatment has the following implications:

- **Issue C7 (Environmental tax abatements):** Alignment with the assumed-effect logic of ETEA enables consistent integration of explicit subsidies, tax abatements, and environmental taxes within a unified conceptual framework.
- **Issue C1 (Classification structures):** The environmental domain classification used for ETEA can serve as the primary classification for PEDS, supporting harmonised reporting across monetary environmental accounts.
- **Issue A6 (Thematic accounts and policy linkages):** Inclusion of PEDS strengthens the analytical completeness of fiscal-environmental reporting within SEEA CF.
- **Linkages to SEEA Ecosystem Accounting:** By grounding PEDS in recognised environmental pressures, the framework supports analytical connections between fiscal measures and ecosystem condition and degradation analysis.

4.7 Sections of the SEEA CF Requiring Amendment

The following revisions or additions would be required:

- Revision of paragraph 4.147 to include a formal definition of PEDS.
- Addition of a new subsection within Chapter 4 (Environmental transactions) introducing PEDS alongside ESST and ETEA.
- Addition of a paragraph clarifying interaction with ESST and the overlap mechanism.
- Inclusion of a glossary entry for PEDS and related terms.
- Possible adjustments to monetary tables to accommodate PEDS reporting and overlap flagging.

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