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Report

Review of approaches to tracking climate expenditure

A report for the National Audit Office of Finland

Institute for European Environmental Policy

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EXECUTIVE SUMMARY

The growing awareness among governments of the central role of climate change in public policy has led a number of administrations to develop mechanisms for better understanding how the public finance system prioritises climate policy outcomes.

This report provides an analytical review of existing practices to track climate related expenditure, identifying a range of areas where current tracking systems differ in their practical application and the possible reasons for those differences. It is based on a set of case studies – presented in more detail in the Annex – looking at examples of climate tracking mechanisms for public funding, particularly in the EU, but also in other developed economies and some developing economies[1]. The relevant issues in the EU's Taxonomy Regulation, which aims to apply a tracking discipline to private investment, are also summarised and reflected. In addition to tracking, the report also provides information on efforts being undertaken to screen expenditure in order to prevent negative impacts on climate policy objectives.

Firstly, the report notes that there are a range of possible reasons for tracking climate expenditure which, in turn, influence the choice of tracking mechanism put in place. These include a desire to create pressure for higher levels of climate expenditure; to demonstrate that existing political or international commitments are being met; to ensure that climate considerations are appropriately mainstreamed; or to improve understanding of the gap between current investment and the level of investment believed to be required.

Secondly, the report identifies different practical approaches to tracking, particularly whether the system is based on the so-called "Rio Markers" or some other classification of climate expenditure. Rio Markers involve identifying whether expenditure is primarily focused on climate outcomes, or whether it addresses them as a principle secondary objective. There are different approaches to the use of Rio Markers, including whether they are assessed on the basis of the stated objective of expenditure, or on the basis of its impacts in practice. The Rio Markers system aims to provide a relatively simple approach which nevertheless recognises that, because climate policy is linked to the full range of economic activity, a binary categorisation of "Climate relevant" and "Not climate relevant" is difficult to achieve.

Other systems, particularly those which look at climate relevance alongside a range of other environmental outcomes, use a binary categorisation. While this can give valuable information on whether climate and other sustainability issues have been mainstreamed in individual areas of expenditure, it is not as effective in providing estimates of overall expenditure on climate.

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[1] Note: The tracking system used in Finland was not included in this review because, as the funders of the project, the National Audit Office of Finland is fully familiar with this example.

Finally, attention should also be given to improving synergies between mechanisms for tracking public expenditure and mechanisms for tracking private expenditure, especially in the context of the implementation of the EU Taxonomy Regulation. While there are different purposes to public expenditure tracking, and the regulation of private sector investments which can be labelled as "sustainable", there is enough similarity in their objectives to create the potential for mutually beneficial learning.

Based on our review, the following recommendations for improving the integration of climate policy into public expenditure can be identified:

- The need for clarity on the purpose of a tracking system, and transparency in how it is used;
- The importance of a clear link between climate expenditure, and the climate outcomes delivered by that expenditure;
- The need to distinguish between expenditure on climate mitigation, and expenditure on climate adaptation.
- The need to identify expenditure which has a negative impact on climate policy, and, where possible, to take action to avoid that negative impact. The total of residual negative expenditure should be reported separately, rather than netted off a total figure for climate expenditure.

1. OVERVIEW OF APPROACHES TO TRACKING CLIMATE EXPENDITURE AT GOVERNMENT LEVEL

1.1 UNDERLYING RATIONALES AND AIMS

Tracking climate expenditure raises challenges which do not apply to, for example, stating a total of defence expenditure, or of social security expenditure. The pervasiveness of both climate emissions and carbon sinks across human activity means that, while there are some areas of expenditure which are primarily associated with climate mitigation or adaptation (e.g., carbon sequestration, flood defences), there is a much wider penumbra of expenditure where climate factors are also relevant. Assessing how much Governments spend on climate policy therefore requires an assessment not just of the programmes which are clearly labelled as addressing climate policy, but also of a wide range of policy areas, including in particular energy, transport and housing, but also land use, research, and others.

Climate tracking has primarily been used in developed countries, including in the monitoring of their Official Development Assistance (ODA) investment in developing countries. However, developing economies are also increasingly starting to explore climate tracking practices.

The reasons for tracking climate expenditure are not always clearly stated by the administrations which implement them. However, our assessment of different systems suggests that, in each system, one or more of the following justifications may contribute to the rationale:

- To demonstrate to international negotiating partners that **commitments on climate finance are being met**; for example, this underpins the use of Rio Markers for ODA expenditure;

- To **encourage greater use of public expenditure to deliver climate objectives**: this may be either through setting a specific target for climate expenditure, such as the EU's 20% target in the 2014-2020 budget period; or through the tracking process itself leading to a greater emphasis on climate mainstreaming;

- To assess whether **climate policy has been sufficiently mainstreamed** in spending programmes;

- To **demonstrate** to legislatures, voters, and civil society organisations that Government **expenditure is appropriately focused on climate policy**; this may be in association with setting a numerical target for expenditure. This is similar to the rationale for private sector systems for certifying climate investments – with, in the latter case, the additional incentive of attracting investments from individuals or funds committed to tackling climate change.

In theory, tracking could also provide information about whether the gap between finance requirements for decarbonisation, and expenditure in practice, is being met; however, none of the systems we have assessed appears to attempt such an analysis. Similarly, a climate tracking system which identified the impact of spending on delivery of climate mitigation, and achievement of climate adaptation objectives, could provide useful information on the efficiency and effectiveness of spending; tracking methodologies have so far not done so, although, as we note below, the proposed Norwegian system aims to provide such information.

Another way of approaching climate tracking is to consider what the information emerging from tracking systems is used for, for example, which decisions are informed by having this information available:

In some cases, this will involve **decisions by policymakers** on **individual programmes** or areas of expenditure:

> Has climate policy been adequately mainstreamed?
>
> Is the expenditure making as much of a contribution to delivery of climate objective as it should?

In other cases, the focus may be on **demonstrating progress to an external audience**:

> For example, is the EU co-legislators' emphasis on climate expenditure followed through in the detailed implementation of programmes?
>
> Are developed countries meeting their financial commitments to developing countries under Multilateral Environmental Agreements?

Where the focus is on demonstrating progress, there is a clear risk of expenditure being reported over-optimistically[2].

There may also be a need to provide information on whether the total funding available from Government expenditure matches the need for such expenditure, or helps to bridge gaps in private sector investment. While the existing methodologies do not appear to have been used for this purpose, it is one potential future development, which would have further methodological implications.

This typology of climate tracking approaches, based on (i) the underlying rationale and (ii) the use of the information generated, helps in assessing the ways in which climate tracking systems are used in practice (or, for those under development, are planned to be used). A greater focus on the purpose of tracking, and the nature of the decisions it is intended to inform, may also help governments and other institutions to design and enhance methodologies to ensure that their objectives are met. The common thread to

[2] In line with the observation know as Goodhart's Law: that when a measure becomes a target, it ceases to be a good measure.

the possible approaches to tracking should be that they provide a mechanism to improve climate outcomes – either by ensuring more thorough climate proofing of expenditure decisions, or by encouraging a greater policy and expenditure focus on climate issues.

1.2 TRACKING METHODOLOGIES ADOPTED

1.2.1 Rio Markers approach and its variants

Another difference between existing climate tracking systems is the methodology they adopt; where the main issue is whether they adopt the Rio Markers approach, which has been the basis for most climate expenditure tracking to date.

The Rio Markers system was developed by the OECD[3], and originally aimed to give developed countries a mechanism for assessing how their development co-operation expenditure contributed towards their obligations under the Rio Conventions on Climate Change and Biodiversity. The OECD system specifies the following guidelines for the application of the markers:

> **Rio Marker 2**: An activity can be marked as "principal" when the objective (climate change mitigation, climate change adaptation) is explicitly stated as fundamental in the design of, or the motivation for, the activity.
>
> **Rio Marker 1**: An activity can be marked as "significant" when the objective (climate change mitigation, climate change adaptation) is explicitly stated but is not the fundamental driver or motivation for undertaking and designing the activity.
>
> **Rio Marker 0**: Not targeted means that the activity was examined but found not to target the objective in any significant way.

Some tracking mechanisms use the Rio Markers broadly in the manner they were originally designed. Examples of such practice include the way in which most donors assess ODA in line with the OECD guidance, and the EU's tracking mechanism for biodiversity expenditure.

One key advantage of the Rio Markers mechanism is that it allows a categorisation of broad totals of expenditure, without too much debate over whether programmes fall one side or the other of a "climate" / "not climate" line. Other tracking systems use this advantage, but with some adjustment. For example, the EU's climate tracking system does not focus on the objective behind expenditure, but rather assesses the significance or otherwise of the contribution made by expenditure to the delivery of climate objectives:

> *"The climate tracking is done using EU climate markers, which adapted the OECD's development assistance tracking 'Rio markers' to provide for quantified financial data. EU climate markers reflect the specificities of each policy area, and assign*

[3] See "OECD DAC Rio Markers for Climate: Handbook", OECD

> *three categories of weighting to activities on the basis of whether the support makes a significant (100%), a moderate (40%) or insignificant (0%) contribution towards climate change objectives. At the same time, the tracking methodology has also reflected the specificities of policy areas."*[4]

The EU's climate tracking approach has been criticised by the European Court of Auditors[5] (ECA) as failing to observe the OECD's principle of conservativeness, and in particular applying the 100% marker too broadly. Other work, including a recent IEEP report for the European Parliament[6], also notes that a number of programmes which have questionable impacts on climate objectives, and where climate formed no part of their original justification, are tracked with the 40% marker.

Any system which attempts to measure climate expenditure is likely to face "boundary" issues, i.e. whether expenditure falls on one side or the other of a demarcation line. While the Rio Markers system reduces the threshold impact of assessing whether or not expenditure is to be counted at all, it still leaves challenges – is expenditure sufficiently aimed at climate objectives for it to be counted under the 40% marker? How should expenditure with a definite impact on climate policy, but arguably not a major one, be categorised? In the EU in particular, this has led to controversy around the tracking of Common Agricultural Policy expenditure[7].

1.2.2 Climate Components Methodology

The most widespread tracking of climate related spending has taken place with regard to international climate finance and development assistance, where systems based on the Rio Markers have been used by Multilateral Development Banks (MDBs) and Development Assistance Organisations.

In 2015, MDBs agreed to adopt a common approach to tracking climate change mitigation and adaptation finance to facilitate transparent reporting and discussion. Two working groups were developed in order to improve on the methodologies and to focus on challenges of tracking. The first, coordinated by the European Investment Bank (EIB), covers climate mitigation, while the second, coordinated by the Inter-American Development Bank, covers climate adaptation.

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[4] COM (2019) 400, working document part I: Programme Statements of Operational Expenditure

[5] ECA (2016) Special report no. 31, 2016, "Spending at least one euro in every five from the EU budget on climate action: ambitious work underway, but at serious risk of falling short". European Court of Auditors.

[6] Nesbit et al., "Documenting climate mainstreaming in the EU Budget – making the system more stringent, transparent and comprehensive", European Parliament, July 2020

[7] See the reports referred to in footnotes 5 and 6 above.

'MDB climate finance' is defined as:

> *"financial resources committed by MDBs to development operations and components thereof which enable activities that mitigate climate change and support adaptation to climate change."* While 'climate co-finance' refers to *"volume of financial resources invested by other public and private external parties alongside MDBs for climate mitigation and adaptation activities."*

The common methodology used by the MDBs is called a 'Climate Components Methodology' and, while aligned with Rio Markers and acknowledged by the official OECD Rio Markers Guidance, it is a separate system. Rather than assigning 100%, 40% and 0% markers across all finance, the MDB methodology measures specific climate components committed to development operations that enable activities that mitigate or adapt to climate change in developing and emerging economies. The components are reported on an "as is" basis and range from the full investment amount to only a small fraction of a development project that relates specifically to climate change mitigation or adaptation objectives. Rather than providing a Rio Marker type indication of mainstreaming, this approach aims to provide a conservative account of finance, or financial components, that specifically support climate objectives.

For adaptation finance, the methodology attempts to capture the incremental cost of adaptation activities and is project- and location-specific in accounting for a response to climate vulnerabilities. For mitigation finance, estimates are based on a list of activities in sectors and subsectors that are deemed to support low-carbon development pathways.

The case study on the World Bank in the annex provides further detail on the approach and principles underpinning the tracking of adaptation and mitigation finance.

1.2.3 Other categorical tracking approaches

Other approaches that avoid the use of the 100%, 40% and 0% Rio Markers approach include the recently implemented French national system and the Norwegian system currently under development.

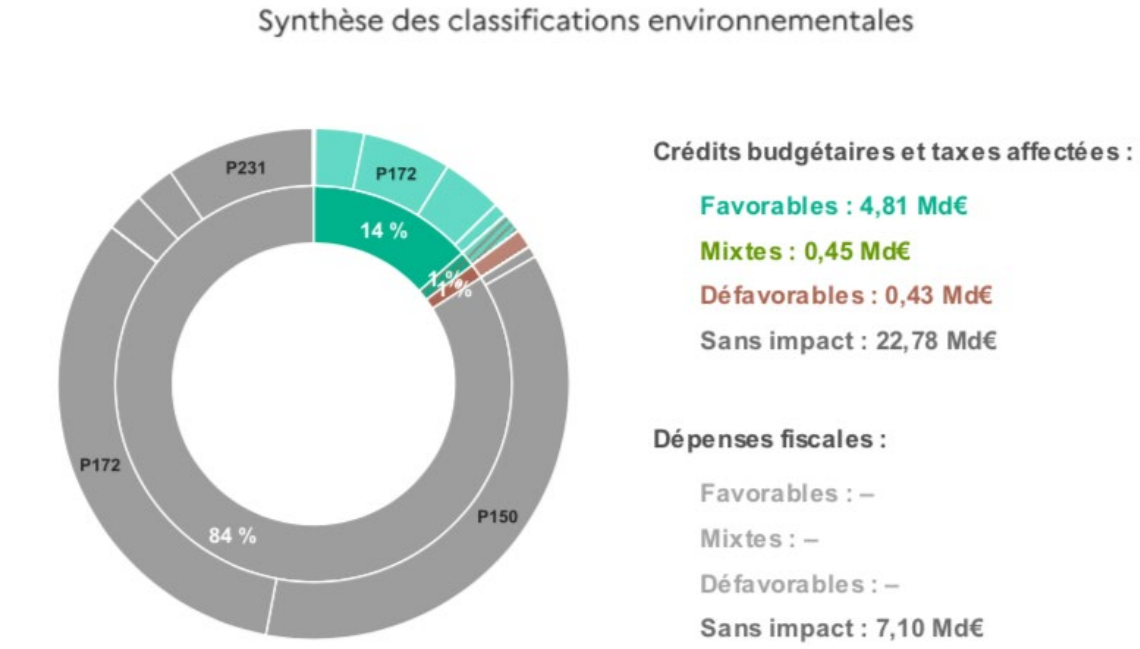
The French system[8] identifies expenditure as making a favourable, neutral, or unfavourable contribution to each of six environmental factors, which are broadly based on those used in the EU's Taxonomy Regulation (which is covered in more detail in section 4 below). Favourable impacts, which explicitly include expenditure whose impact is regarded as controversial, may be based on either the objective of expenditure or its impacts (where there is good evidence to support that assessment). The system, by implication, does not attempt to present totals of expenditure "on" climate change, but rather seeks to show where climate has been mainstreamed in expenditure.

[8] See "Rapport sur l'impact environnemental du budget de l'État", September 2020, and the case study at A.3 below.

Other noteworthy aspects of the French system are that it is also applied to tax expenditure, for example, tax rebates for a range of policy rationales; that it explicitly identifies negative impacts of expenditure, reporting a "mixed" impact where some environmental issues were negatively affected and some positively affected; that it separately identifies investment costs and current costs; and that it is accompanied by estimates of overall public and private sector investment affecting the environment.

The Norwegian system is still in development. However, its ambition is not to measure the quantity of government spending on climate (although this will presumably be identified as well), but the impact on greenhouse gas emissions. A key methodological issue is therefore how to measure the emissions impact of expenditure, with challenges in terms of identifying appropriate timescales and counter-factuals. While a triage mechanism is proposed in order to identify the climate-relevant expenditure lines, the requirement to assess the significance of their impacts, or to apply markers, is effectively avoided.

Figure 1: Example graphic presentation from the French annual report (Higher Education)



Source: "Rapport sur l'impact environnemental du Budget de l'État", September 2020

1.3 TRACKING NEGATIVE CLIMATE SPENDING

Tracking systems have mostly focused only on the tracking of spending on positive actions in mitigating or adapting to climate change. However, as the Norwegian Technical Committee Report on developing a new methodology for climate tracking pointed out,

this is a significant shortcoming in existing systems if the aim is to understand the impact of government spending on the climate.

In order to allow a full overview of the climate impact of budgets, a methodology for tracking spending with a negative impact on the climate would also need to be developed. Systems that focus only on the positive effect of spending are obviously more politically convenient for governments, because they are able to showcase the positive spending levels without any distraction caused by the identification of negative spending, and because they sidestep politically contentious discussions on which expenditure has negative impacts.

Technically, it is not difficult to assign a negative coefficient or categorisation to spending with a clearly negative effect on climate objectives, although an initial categorisation and assessment is necessary. It may be useful to assign a grading of degrees of negativity, such as in the French system, or categorise by direct or indirect effects such as in the system proposed in Norway. Both systems also have a "neutral" category for spending where the climate effect is not clear or insignificant. For example, items such as salaries and social security payments have been listed as neutral. The Norwegian methodology notes that there may be complexities and expert input needed to establish the system initially, but that once established the system can be updated with new figures without needing to update the methodology significantly, reducing the administrative burden.

Methodological issues that arise in assigning a classification include the timescale on which the investment is evaluated, and the baseline to be used in the evaluation. Depending on whether the evaluation is in comparison to no spending, or in comparison to previous spending, the difference can be significant. Some investments, such as for natural gas, are argued to be "transition" technologies, which help to lower emissions in the short to medium term relative to business as usual, even though they generate greenhouse gas (GHG) emissions; they could conceivably be tracked as climate positive if a short-term perspective is used, but climate negative in a longer-term perspective. The Norwegian system has proposed a partial remedy to this issue, by evaluating investments on a range of different time scales.

The Norwegian system has additionally proposed a way of measuring the negative (or positive) aggregate effect of the budget as a whole using a top-down economic analysis of the contractionary or expansionary effect of the budget, and the broader economic and behavioural effects of the budget.

1.4 TOWARDS A QUANTITATIVE MEASUREMENT OF THE CLIMATE IMPACT OF EXPENDITURE

Finally, and ideally, tracking systems should measure the direct GHG emissions impact of spending, and (for adaptation spending) provide data on the impacts on improved resilience; but methodological complexity has largely prevented this except on a very limited scale.

Some attempts are being made to implement such systems (notably in Norway, see above) but significant methodological problems need to be overcome in order to implement such a system, and particularly in order to implement it in a comparable way across different jurisdictions.

As with the assessment of negative expenditure, the timescale and baseline against which impacts are measured are potentially problematic. For example, investments in highly efficient gas-fired technology could represent an improvement in carbon emissions in the immediately following years, compared with the status quo; but they would risk becoming a stranded fossil fuel asset in later decades, as carbon constraints on economic activity are gradually ratcheted up in line with Paris Agreement commitments.

2. KEY METHODOLOGICAL ISSUES IN TRACKING GOVERNMENT EXPENDITURE ON CLIMATE

On the basis of the overview and analysis in Chapter 1 above, there are a number of methodological issues which can be identified. This section sets out a short analysis of the main issues.

2.1 DEFINITION OF CLIMATE EXPENDITURE: DIRECT VS. INDIRECT CONTRIBUTION

There are two broad issues relevant to defining climate expenditure: whether a Rio Markers approach is used to reflect both primary climate expenditure and secondary, or indirect, climate expenditure; and whether expenditure is tracked on the basis of its purpose, its impact or a combination of the two.

Most existing systems attempt to account to some degree for indirect climate impacts. There are two levels of indirect climate policy impacts which could be considered: either the policy aim of the expenditure is not primarily concerned with tackling climate change; or the impact of the expenditure on climate goals is indirect, resulting from a change in other variables. We use the term "indirect" to refer primarily to the former category, i.e. where climate is not the primary purpose of expenditure. However, the latter is relevant particularly in systems which look at the impacts of expenditure rather than the stated intention of expenditure[9].

The stringency with which expenditure is assessed as being climate related varies widely. Some systems, such as the Irish, have tried to be more conservative in their estimation of indirect climate benefits in order not to over-estimate. The Irish methodology states:

> "*programmes have been selected for inclusion in the table of climate-related expenditure only where it is evident that all, or at least the majority of investment in the programme in question, will support improved climate and environmental outcomes. Where elements of a programme may support improved climate and environmental outcomes, but it is clear that this represents only a minority of investment, the programme in question has been excluded.*"[10]

[9] For example, energy efficiency investments reduce demand for energy which, to the extent that the energy supply is derived from fossil sources, in turn reduces emissions. Similarly, rail investments are assumed to reduce demand for fossil fuel powered road or air transport, and thus contribute to lower energy-intensity of the transport sector. As economies are progressively decarbonised, assumptions about what is a climate-relevant investment will need to be kept under review. Thus, as road transport is increasingly decarbonised, it will be increasingly difficult to treat rail investment as climate-relevant; and energy efficiency investments will, as the energy supply is decarbonised, be relevant primarily to energy security objectives.

[10] Cremins & Kevany, 2018. p. 15.

Others, including the Nepalese[11] or EU systems[12], have been criticized for an over-generous interpretation of climate relevant expenditure.

Indirect negative consequences of climate spending are rarely addressed, although the French system attempts to do so, and the Norwegian system intends to do so. The Norwegian model is even attempting to develop a methodology to calculate the indirect emissions induced through the expansionary effects of the state budget in aggregate.

None of the systems examined aims at an exhaustive assessment of all aspects of climate expenditure; and it is difficult to see that this would be feasible, given the administrative costs and different aspects involved. Approximation approaches used include establishing a categorisation of climate-relevant types of expenditure (EU, World Bank); focusing on a shortlist of expenditure programmes predetermined as climate-relevant (Nepal, British Columbia, Ireland); and making decisions on the basis of budget lines, rather than individual projects or investments (France, Norway).

2.2 SCOPE OF TRACKING: WHAT KIND OF SPENDING IS CONSIDERED

Most existing systems examine public expenditure in a narrow sense, focusing on the expenditure of the nation or entity in question. Some (e.g. Nepal, British Columbia, Nepal) narrow the scope of assessment further, by looking in detail only at a subset of programmes known to have climate objectives. Some (France, Norway, Finland) also assess, or have the ambition of assessing, tax instruments; in the French system, both (i) subsidies in the form of lower levels of tax for specific purposes, and (ii) revenues hypothecated from tax instruments with a climate policy rationale, are included in tracking.

Focusing on public expenditure in a narrow sense can mean that potentially significant expenditure is missed by the tracking mechanism. Thus, the EU system does not include in its climate tracking system expenditure from the NER 300 Programme, a €2.1 billion fund, financed from the sale of unused allowances in the Emissions Trading System's "New Entrants Reserve", which funds demonstration projects and innovation in low carbon technology, because it sits outside the EU budget. However, the European Commission intends to apply climate tracking (and biodiversity tracking) to loans under the Next Generation EU recovery plan, including the proposed Recovery and Resilience Facility.

Tracking systems also have to address the question of fiscal transfers. The French system in theory covers transfers to other levels of administration (both to the European Union and to territorial collectivities), but in practice currently takes the conservative approach of assuming that such expenditure is neutral. There is an intention to consider whether data on climate spending under the EU's tracking system can be used in future to supplement the information published under the annual report on French government expenditure[13]. The EU system, in contrast, covers funds spent by the Member States under

[11] Government of Nepal, 2017.
[12] ECA, 201.
[13] See "Rapport sur l'impact environnemental du budget de l'État", September 2020, p.11

shared management programmes; these are subject to significant control by the Commission, and the Commission receives regular and detailed information on implementation.

2.3 ADMINISTRATIVE LEVEL AT WHICH SPENDING IS TRACKED

Different approaches can be identified in the level at which expenditure is tracked, or at which climate markers are applied. In practice, these appear to reflect the nature of the expenditure programmes or budgetary systems involved. Thus, while the French system addresses lines of expenditure at the national budget level, rather than the individual interventions supported by those expenditure lines, this can be justified on the grounds that there is a high level of state control over the approach adopted to expenditure programmes, and a high level of specificity of expenditure in each budget line.

The EU system, by contrast, employs a mixture of broad decisions at programme level (e.g. Common Agricultural Policy expenditure), case-by-case analysis of decisions (e.g. research budget and ODA), and standard markers applied to the detailed typology of investments (e.g. intervention fields under Cohesion Policy programmes). A case-by-case approach has a clear logic where the expenditure has a broad scope, and where individual investment decisions can focus on climate policy objectives to a variable extent (e.g. research expenditure and ODA projects) and where the Commission has full responsibility for the expenditure. Where expenditure takes place under shared management programmes, however, the approach of using standard markers avoids the risk of inconsistent judgements being made by a range of different programme authorities[14].

2.4 TIMING OF TRACKING AND REPORTING

An important consideration in the design of a tracking system is at what point in the budget cycle the assessment is made. Does assessment take place ex-ante, for example as part of an impact assessment of the planned expenditures? Is expenditure assessed when it is committed? Or is an assessment made after the expenditures are made?

Choices about the timing of the reporting will reflect the purpose of the methodology employed – whether prescriptive or descriptive – as well as practical considerations, including the level of administrative resource allocated to tracking. An emphasis on transparency, or on a detailed description of expenditure, would suggest either a need for ex-post reporting, or at least some ex-post validation of the tracking decisions made when expenditure was committed. An emphasis on a prescriptive approach, to encourage greater use of public expenditure to deliver climate objectives, would suggest a need for ex-ante assessment, to ensure that expenditure choices are influenced by whether they contribute towards a climate target.

[14] Although this assumes that the choice of investment field applied to different types of project is itself consistently made by those different programme authorities.

Most of the systems analysed conduct an ex-ante assessment once the expenditure is committed:

- In the development of the Norwegian system, it has been decided that details about the GHG impacts of expenditure should ideally be available at least 6 months ahead of the final presentation of the government's annual budget, in order that informed decisions can be made during the budget formulation process[15]. This is not always the case at present, but details on the GHG impacts of expenditure should be available before the final budget is proposed and accepted by the parliament.

- Ireland presents an ex-ante assessment in the "Revised Estimates for Public Services Volume"; this was deemed to be the most appropriate vehicle through which to identify and highlight Exchequer climate-related expenditure, since it is the most up-to-date assessment of government expenditures, and explicitly permits the inclusion of additional information of public importance.

- Nepal's guidance explains that "important interventions at all stages of the planning and budget cycle can further improve the management of climate finance." The Government monitors and analyses climate related expenditures every trimester in order to track progress toward climate related goals[16]. MDBs report ex-ante at board approval or financial commitment.

- The budgetary reporting in British Columbia is done both ex-ante and ex-post.

In 2017, the ECA recommended that the European Commission should introduce ex-post evaluation of climate spending in order to ensure that planned expenditure translates into actual spending. However, the Commission has argued that such checks would be administratively burdensome, and would not add significant value since it estimates that 97% of commitment appropriations become payment appropriations[17].

2.5 DISTINGUISHING BETWEEN ADAPTATION AND MITIGATION SPENDING

The EU system has been criticised, including by the ECA[18] and by recent research by IEEP for the European Parliament, for failing to distinguish between climate mitigation and climate adaptation. One issue raised by the Commission in response is that further disaggregation of information increases risks of double counting of expenditure.

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[15] See "Rapport fra Teknisk beregningsutvalg for klima 2019"

[16] MoF, 2017: Climate Change Financing Framework: A roadmap to systematically strengthen climate change mainstreaming into planning and budgeting. Ministry of Finance, Government of Nepal, Kathmandu, Nepal.

[17] ECA (2016), p. 79.

[18] See Footnote 5 above

Other systems vary in approach. France distinguishes between adaptation and mitigation impacts; which may be easier in a system which, like the French one, does not aim to provide an overall total of expenditure on climate, and therefore is less affected by the risk of double counting. Norway plans to focus its system on mitigation only. Nepal does not distinguish; but the World Bank does; as does Chile in preliminary work for its system (but since the Monitoring, Reporting and Verification system is under development, it is unclear how the risk of double-counting will be tackled).

It seems clear that a distinction between adaptation and mitigation expenditure is important for all of the potential purposes of climate tracking highlighted earlier in this report (Chapter 1). Even where the objective is to demonstrate achievement of a public commitment to address a proportion of funding to climate objectives, it is likely that stakeholders, legislators and citizens will take an interest in whether the focus of that expenditure is on the public good of climate mitigation, or the mixed public and private goods involved in improved resilience to climate impacts.

The IPCC's 5th Assessment Report (AR5) recognises important biophysical, institutional, financial, social and cultural barriers to adaptation that – when compounded – can lead to soft and hard adaptation limits beyond which climate impacts and risks become unavoidable. These impacts and risks also incur expenditures, both direct and indirect, for governments. In principle these costs, either domestic or international, should be accounted for in a comprehensive system to account for the costs of climate change. However, at this time the institutional and methodological challenges and complexities for such an accounting are significant and require further research before they can be implemented as part of a climate tracking or proofing methodology. Academic and political work to better define concepts such as 'Loss' and 'Damage' are needed to operationalise any attempt to track the cost of climate risks and impacts[19]. Some of these issues are being discussed under the UNFCCC framework and the Warsaw International Mechanism for Loss and Damage.

2.6 TREATMENT OF JUST TRANSITION SPENDING

Spending on a "just transition" is designed to alleviate the negative socio-economic impacts of the low-carbon transition and adaptation to climate change in a just and equitable way that ensures that the substantial benefits of a green economy transition are shared widely. This can take the forms of, for example, supporting the re-skilling of workers, helping SMEs to create new economic opportunities, diversifying economic activity, and investing in the future of the most affected regions and populations.

Spending on just transition may substantially overlap with mitigation and adaptation spending, but it could also be in areas that have no direct, or even indirect climate

[19] Mechler, R., Singh, C., Ebi, K. et al. Loss and Damage and limits to adaptation: recent IPCC insights and implications for climate science and policy. Sustain Sci 15, 1245–1251 (2020). https://doi.org/10.1007/s11625-020-00807-9

mitigation or adaptation impact, despite its perceived importance to the overall success of climate policy. In principle, such spending could also be tracked as a separate area of climate relevant expenditure.

Consequently, a method to avoid double-counting would need to be employed. In addition, a definition of just transition spending would need to be adopted, as the area of intervention is potentially vast and could in principle encompass almost all economic development spending. This would be likely to need to be different for each jurisdiction, as the issues involved can vary significantly. Whole industries, regions, and populations are potentially implicated.

The European Commission has proposed to track the climate content of expenditure of the Just Transition Mechanism using the same intervention fields identified for the European Regional Development Fund and Cohesion Fund expenditure. Based on the review carried out in the context of this study, no climate tracking system has been identified which explicitly includes just transition spending as a separate category.

2.7 HYPOTHECATION OF REVENUES FROM CLIMATE TAXES AND CHARGES

It has been difficult to isolate systematic information on tax hypothecation in the tracking systems examined, in part because the approach of hypothecating revenues from carbon taxes to climate expenditure is not widespread in the administrations concerned.

In some cases, detailed information on hypothecated tax revenues is included (e.g., France), and the Norwegian system under development has the ambition of considering the climate impacts of tax as well as expenditure decisions.

The European Union has limited tax-raising powers. However, in one instance where the proceeds of what is effectively a carbon fiscal instrument are hypothecated by the EU to climate expenditure (receipts from the auctioning of emissions trading allowances are invested in low carbon technology demonstration projects by the NER300 programme, see section 2.2 above), the expenditure concerned is not included in the broader climate tracking methodology. Since it would presumably be counted at 100% if it were included, this arguably creates one instance where EU spending is under-estimated, rather than over-estimated.

3. TRACKING PRIVATE SECTOR CLIMATE EXPENDITURE: THE EXAMPLE OF THE EU TAXONOMY REGULATION

In the context of private expenditure, we reviewed the EU sustainable financing taxonomy initiative and the Taxonomy Regulation[20] adopted in 2020, in order to determine their potential role in supporting, redefining or upgrading climate proofing approaches and methodologies in both the public and private sectors.

The Taxonomy Regulation performs two main functions. It regulates whether investments can be presented and marketed as environmentally sustainable; and it places obligations on financial market participants to disclose information about the extent to which their investments meet the criteria of the regulation. The overarching objective is to encourage investors to choose environmentally sustainable products, by making it easier and more reliable to identify such investments, through the provision of more transparent information.

The regulation does this by establishing six categories of environmental objective to which economic activity can be classified as contributing:

a. climate change mitigation;
b. climate change adaptation;
c. sustainable use and protection of water and marine resources;
d. the transition to a circular economy;
e. pollution prevention and control;
f. the protection and restoration of biodiversity and ecosystems.

Each category is further defined in dedicated articles, and powers are given to the Commission to set out technical screening criteria in delegated acts.

For those tracking public expenditure on climate a number of questions arise: to what extent can or should the typology and criteria developed for the Taxonomy Regulation be used for public expenditure tracking? And is there merit in having consistent and comparable information on investments from the public and private sectors?

The first of the delegated acts have now been published in draft form by the Commission, and includes annexes which set out screening criteria for climate mitigation and adaptation[21]. Key features of the Taxonomy Regulation approach are that:

[20] Regulation (2020) 852 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088
[21] See Ares(2020)6979284 – published on 20/11/2020

- It requires not just a sufficient positive contribution to one or more of the environmental objectives, but also that the relevant activity should do no significant harm to the other objectives;

- For climate mitigation in particular, it explicitly addresses the issue of lock-in of technology, with a requirement that climate mitigation investment should not lead to "lock-in of carbon intensive assets, considering the lifetime of those assets".

- It applies not just to new capital investment, but to investment in ongoing businesses.

Some of these elements create challenges with respect to the tracking of climate expenditure in the public sector, for example:

> In the **agriculture sector**, the criteria put forward by the Commission focus on investments in farm businesses, setting out demanding requirements for, for example: a farm sustainability plan identifying performance in terms of GHG emissions, and the identification of management approaches which would deliver the greatest GHG emissions reductions; detailed rules on record-keeping in relation to nutrient and pesticide application; and a wide range of other features. It is likely that only a small proportion of farm holdings would meet these criteria (and indeed, have the management time available to meet the criteria) – which is arguably an appropriately conservative approach when seeking to limit what can be described as sustainable investments. However, there are a wide range of public spending instruments aimed at improving climate mitigation performance from a wide range of farm businesses, and which would not be covered by this criterion.
>
> In **heavy industry sectors**, for example concrete and steel, it is possible for businesses to meet the criteria, but under very specific and demanding conditions; in particular, that they are in the top 10% of installations in terms of GHG efficiency, and also that carbon emissions are captured, transported and stored underground. A more appropriate focus for assessing public expenditure would be to record contributions to the development of the carbon capture and storage infrastructure itself, rather than the industries using it.
>
> In relation to **climate adaptation**, the screening criteria for heavy industry in particular, but also a range of other activities, focus on whether they have adopted and implemented plans to address climate risks, based on the best available evidence. While this has some logic, it is not clear that these investments provide a wider public benefit (beyond the public interest in the future viability of the firm concerned). A similar approach to public investment in such business decisions would therefore be inappropriate – although in practice, we would hope that public expenditure is focused on the wider public benefit of encouraging and

inciting businesses to manage their own long-term adaptation interests appropriately, rather than subsidising such investment.

Screening out activities which have a **negative impact** on other aspects of the six environmental objectives addressed by the Taxonomy Regulation has a clear logic: while in theory there could be instances where there was a strong public interest case for an investment in, say, low carbon transport infrastructure, which nevertheless caused harm to biodiversity protection, any system for assessing this would require complex arbitration. The notion of avoiding "significant harm" helps to create some flexibility, and does not disqualify investments with minor negative impacts. Adopting a similar approach for public expenditure might artificially reduce the level of climate expenditure recorded (making it hard to get an accurate overall picture); and, at least in theory, public expenditure should not in any case create avoidable environmental damage. However, for public expenditure tracking systems there is a real need to address the risk of adverse environmental impacts on other areas of policy, and, where they are identified, assess whether they are acceptable, and whether they can be mitigated; the French system's approach may be a model here.

In general, it does not seem that the Taxonomy Regulation approach can be transposed as such to address the challenges of measuring public expenditure on climate change. It addresses instead a set of economic activities which, although it has some overlap with public expenditure, leaves significant gaps in terms of the full range of government activities relevant to climate policy. Its structure focuses on issues related to the ongoing environmental impact of a business, rather than the impact of specific expenditure decisions.

However, there is scope – particularly for EU countries and for any other administrations which choose to apply the taxonomy criteria – for some cross-fertilisation and for maximising coherence between public and private systems. For example, in relation to energy, transport and housing categories, where EU Structural and Investment Funds contributions are assessed (see above) on the basis of a list of relevant intervention fields to which 40% and 100% markers are applied, it could be a useful exercise to map those intervention fields against the taxonomy criteria and consider whether the latter suggest any grounds for changing the markers applied.

4. CONCLUSIONS AND RECOMMENDATIONS

The increased urgency and policy prominence of addressing the global climate crisis means that assessing climate expenditure, and the climate impacts of expenditure, in a reliable and comparable way is an increasingly vital element in public expenditure policy. Policymakers, and those institutions and stakeholders with a watching brief on public expenditure, need to have confidence in the data presented to them; they need to be able to understand and draw policy conclusions from that data; and they need to be able to take decisions on how climate tracking should develop in future budgetary exercises.

The tracking of climate expenditure is, however, at an early stage of development.

The EU's system has now been in operation for nearly seven years but, as highlighted by a number of commentators and noted in this report, it has some weaknesses, which need to be addressed. Other systems – except for those focused on development assistance – are either at a relatively early stage of implementation or still under development.

On the basis of our analytical review, the following broad recommendations can be identified:

- Policymakers should be clear about the underlying purposes of climate tracking, and should make design decisions in the light of those purposes.
    - Where the main purpose is to identify whether climate mainstreaming has taken place, the French system, focused on whether impacts are present, may be sufficient.
    - Where the purpose is to demonstrate achievement of a public commitment to spend at a specific level, or a specific proportion of the budget, a conservative approach is necessary to ensure public confidence in the data – but approximations such as the Rio Markers system may be valid.
    - Where the purpose is to identify the extent to which public expenditure is meeting an identified gap in investment needs, or to identify total climate expenditure across the economy, more detailed information on the climate mitigation impacts of expenditure is necessary, and the approximations involved in the Rio Markers approach may not be an adequate approach.
    - In all cases, a distinction between climate mitigation and climate adaptation expenditure is essential.
- A focus on the efficiency and effectiveness of climate expenditure dictates that information is needed on the outcomes achieved by it, in terms of reduced net emissions and in terms of increased climate resilience. While there are significant measurement challenges, policymakers and the broader public need to have

confidence that climate expenditure is being focused on those areas capable of addressing climate challenges most effectively.

- Decisions on the scope and the level of detail of tracking mechanisms need to reflect the specificities of the budget system under consideration; but consistency **within** each tracking system is important to ensuring the reliability of the information it generates.

- Consistency between tracking systems is increasingly important, particularly where different levels of governance are reporting on the same areas of expenditure (for example, the EU level and Member State expenditure). In some cases, as proposed in France, one level of governance may intend to rely on information from other levels in future reporting; and in general, a good shared understanding of systems can help both in the accurate presentation of information, and in fostering cooperation in improving systems and addressing shared technical problems. Cooperation among Supreme Audit Institutions has a potential role to play here.

- Tracking systems for private investment have a different purpose, and a different set of challenges, to those for public expenditure tracking. However, it would be useful to ensure that there is some commonality between the approaches where similar types of expenditure are considered; and that information from the two systems can be presented alongside each other in a coherent and comprehensible way.

- Mechanisms to identify adverse impacts on other environmental factors should be considered; while these may not always invalidate expenditure decisions, they need to be highlighted, their justification needs to be assessed, and options for mitigating them need to be identified.

- Extending the scope of climate tracking to consider tax instruments, as proposed in the Norwegian system currently under consideration, could be valuable in developing an overview of government impacts on climate objectives; although it is likely to rely much more heavily on economic analysis than on administrative mechanisms.

- The practical challenges faced by climate tracking systems will depend on the nature of each system, and its rationale. Some issues, such as the risk of double-counting expenditure[22], vary significantly in importance depending on the

[22] And also, the need to understand and communicate clearly where expenditure is intentionally double-counted. The EU system, for example, counts more than 100% of some expenditure as contributing to climate change and biodiversity (e.g. structural funds intervention fields which are considered relevant to both; agri-environment-climate schemes under the Common Agricultural Policy). Where this is the case, it is important for policymakers to avoid communications which imply that €Xm is being spent on climate **and** €Ym spent on biodiversity.

tracking mechanism. On the specific issue of potential double-counting of climate mitigation and climate adaptation expenditure when presenting data on overall climate expenditure, we recommend clearly stating that there is overlap between climate adaptation and climate mitigation expenditure, and that total climate expenditure cannot be derived by summing the two. On other issues, particularly double-counting of expenditure financed from different sources, enhanced co-operation between budgetary authorities and their audit institutions would be desirable.

- Expenditure linked to the politics of decarbonisation, such as compensatory payments, economic development assistances to areas currently reliant on fossil fuel extraction, retraining, etc., may be significant in some administrations. To avoid confusion and over-reporting, it should only be included in climate tracking where it has an explicit climate impact and objective; but there is value in reporting the totals of such "just transition" expenditure as supplementary information alongside climate tracking totals.

- Negative impacts of expenditure on climate need to be identified and addressed. Whether this takes place through the expenditure tracking mechanism depends partly on whether the administration has other mechanisms available to achieve this. In principle such negative impacts should be reduced to a minimum and avoided altogether, rather than simply counted. Where a tracking system chooses to record negative expenditures (for example, in cases where it is not considered possible to avoid them altogether) totals should be reported for such negative expenditures (rather than simply netting it off from the positive figure of climate investment), in order to ensure an adequate policy focus on whether they are justified, and on what mitigation can be put in place for unavoidable negative impacts.

- The issue of direct government expenditure from loss and damage caused by anthropogenic climate change could be included in budgetary reporting on climate related expenses and would be useful for reflecting a truer understanding of climate related expenditures. However, further work is required to develop consensus and a robust methodology for counting such costs before they can be credibly integrated into budgetary reporting frameworks. This is an area that governments and international organisations should be engaging in more urgently in order to develop a framework in the medium term.

ANNEX: CASE STUDIES

The information underpinning the report is derived from a combination of literature review, and assessment in case study form of a number of individual tracking methodologies. The case studies have been prepared to a common format, and cover:

In each case, we present a narrative description of the main aspects of the methodology or system (in a number of cases, the system is still under development), following by short comments on a standard checklist of issues.

A.1 BRITISH COLUMBIA

History

A new accountability framework was introduced in December 2018 in the Canadian province of British Columbia[23], and this framework was legislated into law in the fall of 2019 with amendments to the *Climate Change Accountability Act* (CCAA)[24]. The province is now required by the CCAA to release an annual Climate Change Accountability Report (CCAR) which includes *inter alia* a broad overview of most climate related spending by the province. Previously, materials that informed consolidated reporting on climate policy, such as GHG emissions inventories and programme spending, were distributed among numerous sources. The new accountability report consolidates this information and enhances it with additional reporting requirements. The CCAR includes information on carbon tax revenue and climate-related spending, both for the previous financial year and planned expenditures from the most recent budget. A first report was published in 2019[25] but the first legally mandated report came in 2020[26].

Methodology

The Accountability Report is focused on the programming and spending under the current government's "CleanBC" plan which is a broad package of targets and measures initiated in 2018 under the new government to reduce GHG emissions and manage climate risks. It does report on some expenditure on "climate related initiatives" outside the CleanBC plan, but it does not attempt to comprehensively account for all climate related spending by the government.

Expenditures are presented for the past fiscal year, as are budgetary projections for the following year. These are presented as "spending on climate-related initiatives" and include this disclaimer: "the list may not capture all climate-related spending by government and this presentation may expand in subsequent reports."[27] These totals include both adaptation and mitigation spending together, as well as spending that could be considered just transition related.

The detail of budgetary reporting has varied in the two reports published so far. In 2019, expenditures under the CleanBC plan were broken down in detail[28] (in an annex in order to make the report more reader friendly). In both reports, expenditures outside of CleanBC were aggregated under a handful of categories including the climate action tax

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[23] Government of British Columbia, (2018) CleanBC: our Nature. Our Power.
[24] Government of British Columbia, CLIMATE CHANGE ACCOUNTABILITY ACT, [SBC 2007] CHAPTER 42
[25] Government of British Columbia, (2020) Building a cleaner, stronger BC: 2019 Climate Change Accountability Report
[26] Government of British Columbia, (2020) 2020 Climate Change Accountability Report
[27] Government of British Columbia, (2020) 2020 Climate Change Accountability Report, p.20.
[28] Government of British Columbia, CleanBC: Backgrounder Table: Budget 2019.

credit, spending on public transport, and some COVID-19 recovery measures. The 2020 Accountability Report did not have the same level of detailed reporting on programme level expenditures within CleanBC.

Another particularity of the reporting in the province has to do with transparency on the revenues from the province's carbon tax. When the tax was originally introduced in 2008 it was promoted as "revenue neutral", as all revenue was returned to taxpayers through a Climate Action Tax Credit and other tax credits, or balanced by reductions in individual and corporate income tax rates. Since 2018, the tax is no longer described as "revenue neutral" although many of the measures that were in place before the revenue neutrality requirement was eliminated remain, such as the Climate Action Tax Credit and most of the personal and corporate tax reduction measures. In the years since then, as the price level of the tax has gradually increased, much of the revenue raised above the level of CAD$30/tonne has been allocated for specific climate-related purposes, as reported on in the Accountability Report.

Sources

- Government of British Columbia, (2020) 2020 Climate Change Accountability Report.
- Government of British Columbia, CLIMATE CHANGE ACCOUNTABILITY ACT, [SBC 2007] Chapter 42.

Scope of tracking mechanism

The primary focus of the Accountability Report are activities developed under the government's "CleanBC" plan, which was developed in 2018 to address both climate mitigation and climate risk reduction. This is a political initiative of the current government (though developed in a previous coalition government). Operating and capital expenditures for CleanBC are reported in the Accountability Report. The report also includes other operating spending outside of CleanBC, such as spending to increase carbon storage or by avoided emissions in the forestry sector. Expenditures on other initiatives to reduce GHG emissions, such as ecosystem rehabilitation, could conceivably be included in future. Some adaptation activities are included in the report, with more attention and detail planned to follow the launch of the expected Climate Preparedness and Adaptation Strategy.

Rio Markers

Rio markers are not employed.

Treatment of climate-negative expenditure

This is no mechanism for recording expenditure on negative climate impacts.

Quantitative measurement of climate impact

The Accountability Report includes estimates of GHG reductions by sector (e.g. transportation, buildings, and communities, and industry) and by CleanBC initiative (e.g. Zero-Emissions Vehicle (ZEV) Mandate, renewable natural gas, etc) by 2030. These estimates are informed by expected expenditures for CleanBC programming and are updated on an annual basis to reflect the latest budget forecasts. The report also includes indicators in each sector to monitor progress, such as the percentage of light-duty vehicle sales that are ZEVs and the percentage of households that use heat pumps, among others. The 2019 Accountability Report included estimated GHG reductions by 2030 related to some specific spending programmes, but this was not repeated in 2020.

Level of detail of the tracking mechanism

The spending for the CleanBC Plan was broken down into relatively detailed program level descriptions in 2019[29], but not 2020. All spending under CleanBC is counted as 100% climate related. Some other broad areas of spending deemed climate related in the rest of the provincial budget are also included in the Accountability Report, but the Government does not claim that this is a comprehensive overview of all climate related spending, and limited information is provided on spending outside of CleanBC.

Mitigation and adaptation

The Accountability Report and budget distinguishes between climate mitigation and adaptation by describing expenditures related to adapting to climate change events such as increased flooding and forest fires. British Columbia is currently developing a detailed climate preparedness and adaptation strategy. However, there is no categorical breakdown of adaptation vs. mitigation spending in budget reporting in the Accountability Report.

Treatment of Just Transition/ compensatory expenditure

Some just transition spending, related to jobs training and skills is included in the climate related spending. No separate category is used for just transition spending.

Treatment of tax revenues

The report includes reporting on the revenues from the province's carbon tax.

[29] Government of British Columbia, CleanBC: Backgrounder Table: Budget 2019.

A.2 CHILE

History

In their 2015 Nationally Determined Contribution[30] (NDC), Chile commits to reporting the "periodical Climate Change public spending analysis, both direct and indirect, which will be updated annually after 2020". The reporting of public spending for climate change falls under their National Finance Strategy for Climate Change, which was installed in 2018.

The National Finance Strategy for Climate Change[31] is based on three Action Axes:

1. Information, data generation, and analysis under a coherent framework
2. Promotion of economic and financial instruments and market development
3. Strengthening Green Finance in the financial sector

In 2016, under Axis 1, Chile created domestic institutions to facilitate the management and coordination of the relationship with the UNFCCC's Green Climate Fund, which finances mitigation and adaptation projects.

As for the tracking of climate finance from public expenditure, in 2019 pilot projects were launched to measure the public resources committed to climate policy. Moreover, in August 2019, Chile's Ministry of Finance announced it is working on a methodology to identify both public and private expenditure for climate objectives.

Methodology

Recently, the Pacific Alliance, including Chile, Colombia, Mexico and Peru launched national studies aimed at strengthening their climate finance tracking and reporting systems[32]. In this context, a dedicated Measuring, Reporting and Verification (MRV) methodology for the tracking of public expenditure for climate adaptation and mitigation is currently under development by the Ministry of Environment.

So far, Chile has developed a methodology for the measurement of public expenditure and has defined public climate expenditure based on the Rio Markers approach (i.e. targets). Specifically, project initiatives that have climate change mitigation and/or adaptation as their main goal are accounted for 100%, while projects that contribute to mitigation and/or adaptation but not explicitly stated in the main goal of the project are accounted for by weighting[33].

[30] Government of Chile, Intended Nationally Determined Contribution (2015).
[31] Government of Chile, National Finance Strategy for Climate Change (2019).
[32] The Pacific Alliance, Countries of the Pacific Alliance advance in strengthening their climate finance tracking and reporting systems (2020).
[33] The Pacific Alliance, Climate Finance MRV in Chile: Baseline Report Series (2020).

The measurement methodology applies the Classification of the Functions of the Government (COFOG) which adds expenditure on natural resources and natural disasters to climate and environmental expenditure as a response to the Chile's different accounting requirements as determined by their NDC[34].

Sources

- The Pacific Alliance, Climate Finance MRV in Chile: Baseline Report Series (2020).
- Government of Chile, Intended Nationally Determined Contribution (2015).
- Government of Chile, Nationally Determined Contribution Update 2020.
- National Action Plan for Climate Change 2017-2022 (linked in Spanish).
- National Finance Strategy for Climate Change (2019) (link downloads the document directly).
- The Government unveils climate change bill designed to decrease the negative impacts of climate change in Chile (January 2020).

Scope of tracking mechanism

A dedicated Measuring, Reporting and Verification (MRV) methodology for the tracking of public expenditure for climate adaptation and mitigation is currently under development[35]. In 2019 pilot projects were launched to measure the public resources committed to climate policy[36].

Rio Markers

The system currently uses a variant based on the Rio Markers system. For initiatives which explicitly state the objective is climate change mitigation/adaptation, 100% is allocated. Other initiatives that contribute to climate change mitigation/adaptation are weighed[37].

Treatment of climate-negative expenditure

MRV methodology still under development, and it is uncertain if it will incorporate the treatment of climate-negative expenditure.

Quantitative measurement of climate impact

MRV methodology still under development, and it is uncertain if it will incorporate quantitative measurement of climate impact.

[34] The Pacific Alliance, Climate Finance MRV in Chile: Baseline Report Series (2020).
[35] The Pacific Alliance, Climate Finance MRV in Chile: Baseline Report Series (2020).
[36] Government of Chile, National Finance Strategy for Climate Change (2019).
[37] The Pacific Alliance, Climate Finance MRV in Chile: Baseline Report Series (2020).

Level of detail of the tracking mechanism

MRV methodology still under development.

Mitigation and adaptation

From the preliminary measurement methodology, there is a distinction between adaptation and mitigation, however as the rest of the MRV methodology is under development, it is unknown how they will account for double-counting.

Treatment of Just Transition/ compensatory expenditure

MRV methodology still under development, and it is uncertain if it will incorporate Just Transition or compensatory expenditure.

Treatment of climate costs

MRV methodology still under development, and it is uncertain if or how it will take into account the costs of climate impacts.

Treatment of tax revenues

Under the National Finance Strategy for Climate Change, three green taxes have been implemented so far to decrease GHG emissions, including a sales tax on light vehicles, a tax on the emission of atmospheric pollutants (NO_X, SO_2, particulate material), and a direct CO_2 emissions tax of $5/ton[38]. The revenues from these taxes are not earmarked for climate mitigation or adaptation.

[38] Government of Chile, National Finance Strategy for Climate Change (2019).

A.3 FRANCE

History and methodology

France has recently implemented an ambitious system for analysing and reporting the environmental impacts of the state budget – including the impacts of the tax system. A first annual assessment was published[39] in September 2020, in line with the legal basis set out in the December 2019 finance law. The initiative was developed in response to two pressures: firstly, the French Government's support for and participation in the OECD initiative "Paris Collaborative on Green Budgeting"; and secondly, demand from the general public, civil society, and from the national parliament, for greater transparency on environmental issues. A report from a working party of the Inspection Générale des Finances and the Conseil Général de l'Environnement et du Développement Durable in September 2019[40] set out recommendations for the methodology to be adopted; these have largely been adopted for the first exercise, reported in September 2020, although the 2020 report notes that the methodology continues to be developed.

The approach adopted is applied to the total state budget ("objectif total de dépenses de l'État", or ODETE), a broad approach which includes transfers to local and regional governments, but excludes some financial operations, notably loans.

Six environmental dimensions are identified, which map fairly precisely onto the categories of investment covered by the EU Sustainable Finance Taxonomy Regulation:

- **Climate mitigation**
- **Climate adaptation** and prevention of natural risks
- **Water** resource management
- Circular economy, **waste**, and technological risks
- **Pollution**
- **Biodiversity** and protection of natural, agricultural, and woodland areas.

Expenditure is then analysed at the level of "*actions*" (essentially, programmes of expenditure), and each programme is assessed against each of the environmental dimensions as being either:

- **Favourable**: which includes
  - Expenditure with an environmental objective, or which makes a direct contribution to environmental goods or services;
  - Expenditure without an environmental objective, but which make a proven positive contribution;
  - Expenditure with a favourable impact on the environment, but with some controversy over that impact, notably in the case of investments which may lead to technology lock-in in the longer term.

[39] See "Rapport sur l'impact environnemental du budget de l'État", September 2020
[40] See "Green Budgeting: Proposition de méthode pour une budgétisation verte", September 2019

- **Neutral**: expenditure without a significant environmental impact, or where there is insufficient information.
- **Unfavourable**: expenditure with either a direct negative impact on the environment, or inciting behaviours with negative impact.

The report notes that environmentally unfavourable expenditure may be justified in cases where it delivers other societal goods; and that flagging it as negative allows a better understanding of the trade-offs involved, and a focus on whether the negative impact can be reduced. It also notes that expenditure may have a positive impact on one or more environmental dimension and an unfavourable impact on others (for example, short term negative impacts of infrastructure investments which are expected to have a positive impact in the longer term).

A number of broad approaches to large areas of the budget have been adopted: salary expenditure is generally treated as neutral, as are transfer payments (for example, social security payments to households), except in the case of tax measures aimed at changing behaviour (for example, reduced VAT rates on energy efficiency investments). Fiscal transfers, for example to the EU or to local authorities, are treated as neutral at present, but with a possibility of, in due course, introducing a different approach on the former, linked to the EU's tracking of climate and biodiversity expenditure in its budget.

Information is reported at programme ("*action"*) level for each Ministry, with a simple graphic included.

Best practices identified include:

- Recognition and assessment of expenditure with negative impacts;
- Addressing tax expenditure as well as direct public expenditure;
- Separately identifying impacts across a range of environmental dimensions;
- Addressing the risk of technology lock-in (although it should be noted that such expenditure may still be included as "favourable");
- Reporting expenditure for each individual Ministry.

Relative **weaknesses** include:

- No identification of the scale of positive or negative impacts;
- No distinction between expenditure with a minor or major environmental impact or a primary or secondary environmental objective;
- Assessment is made at the level of an overall programme, rather than on the basis of individual investments within each programme.

Scope of tracking mechanism

The approach adopted is applied to the total state budget ("objectif total de dépenses de l'État", or ODETE), a broad approach which includes transfers to local and regional governments, but excludes some financial operations, notably loans.

Rio Markers

The system does not use the Rio Markers system, but simply identifies whether expenditure is "favourable", "neutral", or "unfavourable". It also takes a mixed approach between the OECD's (assessing expenditure on the basis of its stated aims or objectives), and that adopted by the EU (assessing expenditure based on its impact). It is not immediately clear from the methodology whether there is an explicit threshold of significance for the assessment of impacts, although the approach taken on individual expenditure lines appears broadly defensible, and appears to avoid categorising expenditure as favourable where only minor positive impacts are identified.

Other tracking systems

The same broad approach is applied to all expenditure, including overseas development assistance. While the report notes that the EU has its own tracking system, fiscal transfers to the EU budget are currently treated as being neutral on the environmental dimensions assessed; however, this could change in future.

Treatment of climate-negative expenditure

The identification of negative impacts of expenditure is one of the salient features of the French system. Examples of expenditure recorded as being negative in terms of climate mitigation include: fuel subsidies (including reduced tax rates) for road transport; subsidies for the construction of new housing; air transport; and road construction. Some expenditures are also identified as being negative from a climate adaptation angle, such as air transport and road construction. There do not appear to be any budget lines which are assessed as unfavourable for climate adaptation alone (i.e. not also assessed as unfavourable for climate mitigation). Negative expenditure is not netted off from the total of environmentally favourable expenditure, but totals for negative expenditure are presented alongside data on favourable expenditure (see example at end).

Quantitative measurement of climate impact

The French methodology does not attempt to measure impacts on climate (or the other environmental dimensions assessed). However, it does separately distinguish between climate mitigation and climate adaptation impacts, which helps in the clarity of reporting of results.

Level of detail of the tracking mechanism

The detail in terms of types of impact is impressive, and the coverage of a range of environmental dimensions alongside climate mitigation and adaptation is noteworthy. The assessment is carried out at the level of individual budget lines, rather than individual investments, which means that expenditure is covered in a fairly broad-brush way; however, the nature of the French administrative budget system is that the purpose and nature of expenditure is generally quite clear, so this may not be a significant weakness. Where the national level of administration has less control over how expenditure is used

(for example, EU funds, or transfer to local and regional government), expenditure is treated as neutral. It is likely that this leads to some under-assessment of both climate favourable expenditure (for example, local government investment in mitigation or risk management), and unfavourable expenditure (for example, road transport investment).

Mitigation and adaptation

The system clearly distinguishes between climate mitigation and climate adaptation impacts, both favourable and unfavourable. However, the level of focus on adaptation, particularly expenditure unfavourable from a climate adaptation perspective, seems to be relatively weak.

Treatment of Just Transition/ compensatory expenditure

We have not identified any specific approach to compensatory expenditure; however, the apparently rigorous approach adopted makes it unlikely that expenditure whose positive impact was primarily political (for example, training support to those converting from fossil fuel industries) rather than directly beneficial, would be included in the "favourable" totals.

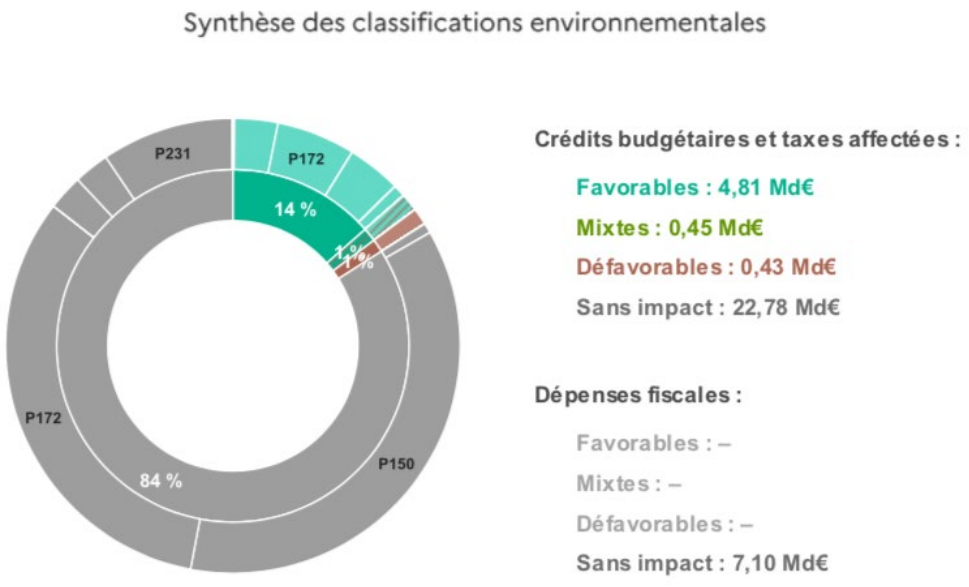
Treatment of climate costs

Costs of climate impacts are not addressed by the assessment system.

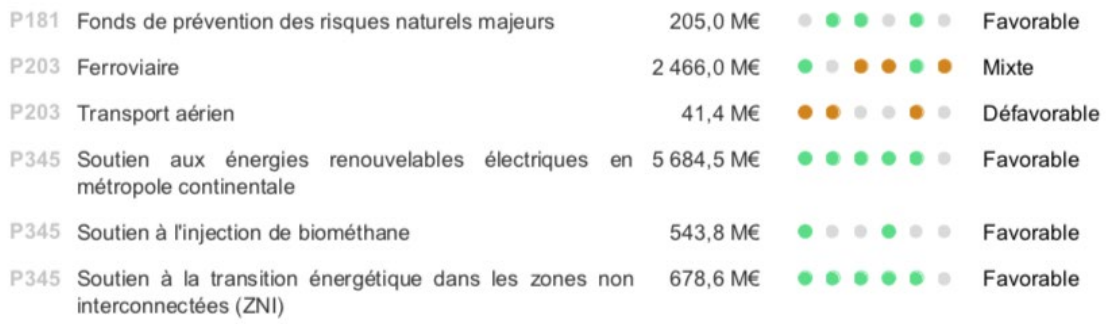
Treatment of tax revenues

The assessment system takes a rigorous and comprehensive approach to the assessment of tax expenditures. However, there does not appear to be a specific approach to the hypothecation of tax revenues to environmental objectives.

Example graphic presentation of expenditure: Research and Higher Education:



Example graphic presentation of expenditure: Ministère de la Transition Ecologique, excerpt of budget line analysis:



P181	Fonds de prévention des risques naturels majeurs	205,0 M€		Favorable
P203	Ferroviaire	2 466,0 M€		Mixte
P203	Transport aérien	41,4 M€		Défavorable
P345	Soutien aux énergies renouvelables électriques en métropole continentale	5 684,5 M€		Favorable
P345	Soutien à l'injection de biométhane	543,8 M€		Favorable
P345	Soutien à la transition énergétique dans les zones non interconnectées (ZNI)	678,6 M€		Favorable

A.4 EUROPEAN UNION

History and methodology

The European Union's system for tracking climate expenditure is the best-known and most studied of the examples we consider in these case studies. This short summary covers only the main points of the system, and of the various published analyses of it. Readers are directed to fuller studies for more information, particularly the reports by the ECA[41], a study carried out by Ricardo, Trinomics and IEEP for the European Commission in 2017[42], and the more recent IEEP study[43] for the European Parliament published in 2020.

The climate tracking system was developed by the European Commission and applied from 2014 onwards, primarily as a means of ensuring that a commitment to spend at least 20% of the EU budget. As part of its package of proposals for the 2014-2020, the Commission wanted to emphasise the growing importance of climate change objectives in EU policy; rather than propose specific climate funding lines, however (in addition to the existing LIFE programme), the Commission chose to encourage greater mainstreaming of climate objectives into other programmes, backed by a target (subsequently endorsed by the European Council and the European Parliament) to spend at least 20% of the budget on climate objectives.

The Commission's methodology for identifying and measuring climate-related expenditure in the 2014-2020 period was based on the Rio Markers system developed by the OECD , which aimed to give developed countries a mechanism for assessing how their development co-operation expenditure contributed towards their obligations under the Rio Conventions on Climate Change and Biodiversity. Under the OECD Rio Markers, a marker of 0, 1 or 2 is applied to funding. However, while the OECD tracking methodology suggests a focus on the purpose of expenditure, the approach was adapted for use in the EU budget, as explained in the Commission's Statement of Estimates for the 2020 financial year:

> *"The climate tracking is done using EU climate markers, which adapted the OECD's development assistance tracking 'Rio markers' to provide for quantified financial data. EU climate markers reflect the specificities of each policy area, and assign three categories of weighting to activities on the basis of whether the support makes a significant (100%), a moderate (40%) or insignificant (0%) contribution towards*

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[41] European Court of Auditors, Special report no 31, 2016, *Spending at least one euro in every five from the EU budget on climate action: ambitious work underway, but at serious risk of falling short.* European Court of Auditors, Review no. 1, 2020, *Tracking climate spending in the EU budget.*

[42] Ricardo, Trinomics, IEEP: "Climate mainstreaming in the EU Budget: preparing for the next MFF", European Commission, September 2017.

[43] Nesbit et al., "Documenting climate mainstreaming in the EU Budget – making the system more stringent, transparent and comprehensive", European Parliament, July 2020.

climate change objectives. At the same time, the tracking methodology has also reflected the specificities of policy areas."

The ECA's 2020 Review[44] provides the following illustration of the differences in approach. The key difference is thus the absence in the EU system of an assessment of the stated motivation of the expenditure, and a focus instead on the contribution made in practice.

Table 1 – OECD Rio markers versus EU climate coefficients

OECD Rio Marker	OECD Finance Flow/Activity	EU Funding/ Programme/Measure	EU Climate Coefficient
2	Activity for which climate is the **principal objective**; it would not be funded but for that objective	Funding with a **significant contribution** to climate objectives	100 %
1	Activity for which climate is a **significant** (explicitly stated) **objective**, but **not the essential objective**	Funding with a **moderate contribution** to climate objectives	40 %
0	Activity **not targeting the climate objectives** of the Rio conventions in any significant way	Funding with **no/ an insignificant contribution** to climate objectives	0 %

Source: ECA Review No 1 2020, "Tracking climate spending in the EU Budget", page 12

The results of climate tracking, detail on the contribution from each programme, and information on measurement methodologies used, is published annually by the European Commission in the "Programme statements of operational expenditure", part of the package of working documents in support of its annual Budget proposals[45]. The 2020

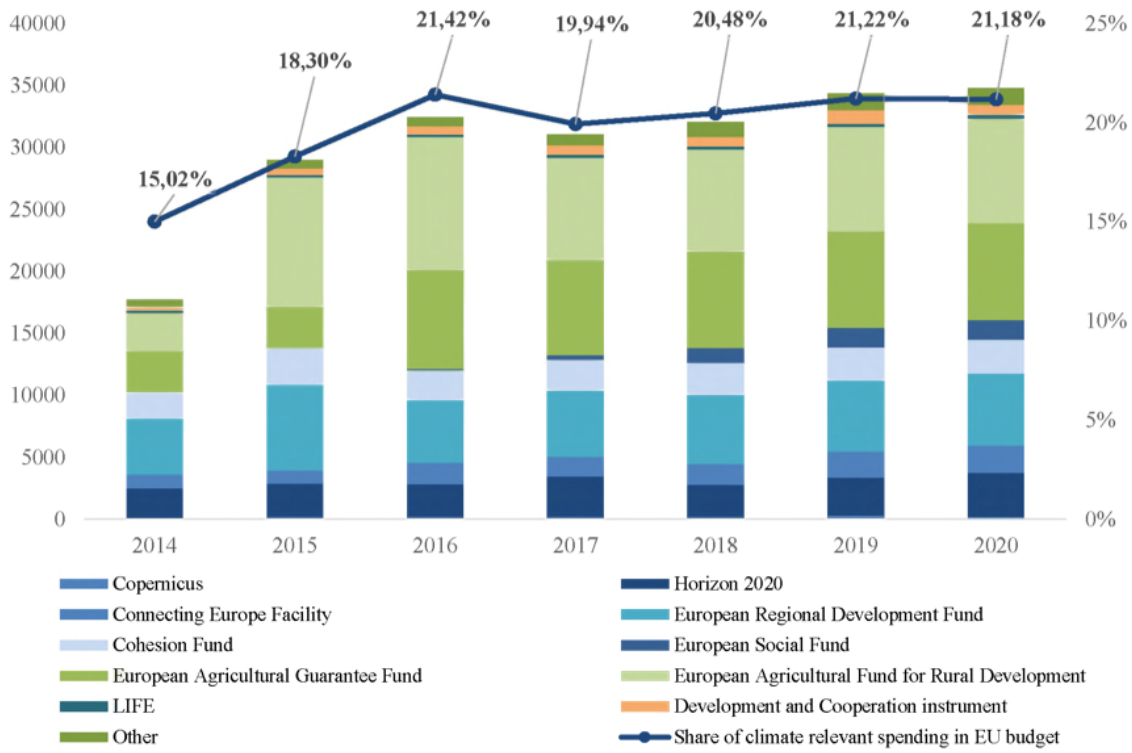
[44] See Footnote 41 above.

[45] The latest being COM (2020) 300, "Draft General Budget of the European Union for the financial year 2021"; working document Part 1, "Programme Statements of Operational Expenditure".

document includes the chart below (Figure 2) on the change in climate expenditure over the 2014-2021 period.

The details of the methodology as applied to different areas of expenditure vary significantly, partly due to the nature of each programme and its mode of operation. Thus, for some programmes managed directly by the Commission, such as the Horizon 2020 research budget, overseas development expenditure[46], and the Copernicus satellite information system, the Commission decides case-by-case what marker to apply to individual expenditure allocations.

Figure 2: Climate spending 2014-2020



Source: "Programme Statements of Operational Expenditure", June 2020

So-called "shared management" expenditure, where the Commission and the legislators delegate much of the implementation decisions in practice to Member State level, a less case-by-case approach is adopted, with broad guidelines applied to assess the "climate" content of expenditure. Thus, for expenditure under the so-called European Structural and Investment Funds, the Commission relies on a system whereby Member States record expenditure commitments under broad headings ("investment fields"). Investments recorded under the following fields are allocated a 100% climate marker:

[46] It should also be noted that these programmes use the OECD's marker approach, focusing on the objective of the expenditure, rather than its impact.

009 Renewable energy: wind
010 Renewable energy: solar
011 Renewable energy: biomass
012 Other renewable energy and renewable energy integration
013 Energy efficiency renovation of public infrastructure, demonstration projects and supporting measures
014 Energy efficiency renovation of existing housing stock, demonstration projects and supporting measures
015 Intelligent Energy Distribution Systems at medium and low voltage levels
016 High efficiency co-generation and district heating
023 Environmental measures aimed at reducing/avoiding greenhouse gas emissions
065 Research and innovation infrastructure, processes, technology transfer and cooperation in enterprises focusing on the low carbon economy and on resilience to climate change
068 Energy efficiency and demonstration projects in SMEs and supporting measures
070 Promotion of energy efficiency in large enterprises
071 Development and promotion of enterprises specialised in providing services contributing to the low carbon economy and to resilience to climate change
087 Adaptation to climate change measures and prevention and management of climate related risks
090 Cycle tracks and footpaths

The 40% marker is applied to a shorter list of projects where there is a less direct contribution to climate objectives – for example, air quality expenditure, expenditure on multimodal transport systems, and expenditure on ports.

The Commission has proposed a number of changes for the 2021-2027 period, including a wider range of intervention fields relevant to adaptation, new intervention fields for marine renewable energy investments and for alternative fuels infrastructure; and an increase from 40% to 100% in the markers applied to a range of rail and urban transport interventions, such as newly built railways[47].

One area where the Commission has faced major difficulties in developing a broadly accepted and credible tracking mechanism is in agriculture policy. Successive reports, including the 2016 and 2020 ECA reports, have criticised the approach adopted for expenditure under the Common Agriculture Policy as not following the 'conservativeness principle'[48]. However, the challenge faced by the Commission in this area is real – CAP expenditure makes some contribution to climate, but at a low level; and stated political justifications for CAP expenditure increasingly rely on climate and other environmental

[47] COM/2018/375 final - 2018/0196 (COD), Proposal for a Regulation of the European Parliament and of the Council laying down common provisions (etc.)
[48] See Common Principles for Climate Mitigation Finance Tracking.

objectives. Any application of either the 100% or the 40% climate markers to the whole of the agricultural support budget (pillar 1 of the CAP; as opposed to the Rural Development expenditure under Pillar 2 of the CAP) would be a crude and inaccurate approximation.

Currently, around 20% of the pillar 1 budget is assumed to contribute towards climate change (see the ECA 2016 report, p. 30, figure 7 for a detailed explanation of the calculation); but this is widely regarded as an over-estimate[49]. The Commission proposals for tracking in the next period (2021-2027) envisage an *increase* in expenditure recorded under the climate target, which could lead to as much as 50% of the budget being counted (see the 2020 IEEP report, p. 34 Table 6). This is unlikely to be justified by the level of climate ambition shown by Member States in their application of the CAP legislation in the form proposed by the European Parliament.

The Commission has proposed other changes to its tracking methodology for the 2021-2027 financial perspective, in particular, a more consistent approach to different types of expenditure in different programmes (in effect, applying the intervention fields approach used for the structural funds to a wider range of programmes); and a more explicit ex-ante process of planning how to meet the climate target. The climate target itself has also been made more ambitious, with the latest agreement at European Council level calling for 35% of expenditure to contribute towards climate.

It should be noted that some areas of what is, in effect, EU expenditure fall outside the scope of the tracking mechanism, because they are not formally covered by the EU Budget, as defined under the Treaty on the Functioning of the European Union[50]. Thus, funds generated through EU legislation, such as the so-called New Entrants Reserve funds generated by auctioning of unused allowances under the Emissions Trading System[51], are not covered – although in this specific case the expenditure is focused primarily on decarbonisation and other climate mitigation objectives. Similarly, the loan portfolio of the European Investment bank is not covered (although in practice separate mechanisms have been adopted by the EIB to encourage mainstreaming in its operations).

The EU system is the most prominent (in political terms), and the most commented-on tracking system; these are strengths, in that they should over time make the system more robust. However, currently there are a number of weaknesses, not least an over-generous approach to some programmes, and a tendency for political leaders to over-promise for the accuracy of the mechanism. There is evidence that, in the 2014-2020 period at least, the existence of the tracking mechanism helped to ensure greater focus on climate mainstreaming than would otherwise have been the case. The EU has arguably reached a point where the political prominence of the tracking mechanism is too great to be met by a system which relies on estimation through the application of Rio Markers at 40% and 100%, and Goodhart's Law ("when a measure becomes a target, it ceases to be a good

[49] See the various studies referred to in Footnote 41 above.
[50] See articles 310-314 of the Treaty on the Functioning of the European Union.
[51] Established under Article 10a (8) of Directive 2003/87.

measure") is making the information generated by the current tracking system less valuable to policymakers.

Scope of tracking mechanism

The tracking mechanism applies to all EU expenditure under the main EU Budget. As noted above, some EU funding instruments fall outside the budget, and are therefore not covered by it (despite a high degree of climate relevance).

Rio Markers

The system applies a Rio Markers approach, although for most programmes this is adapted from the approach put forward by the OECD, focusing on the climate impacts of expenditure, rather than the extent to which climate forms part of the purpose or objectives of expenditure.

Other tracking systems

In some areas of expenditure, the application of the Rio Markers, although in principle based on an application of the standard 0%, 40%, and 100% coefficients, could be argued to create an ad hoc estimate of the climate relevance of a programme – particularly in the case of expenditure under pillar 1 of the Common Agriculture Policy (the European Agricultural Guarantee Fund), where a broad estimate is made that 20% of the "non-green" element of direct payments make a moderate contribution to climate objectives.

Treatment of climate-negative expenditure

Climate-negative expenditure is not separately identified and netted off from reported totals. This has been an area of concern for the European Parliament in particular, and a number of observers consider that this, together with an over-generous approach in some areas of expenditure, leads to an over-estimate of net climate expenditure.

Quantitative measurement of climate impact

There is no quantitative estimate of the overall impact of climate expenditure. Individual programmes have attempted estimates, either formally or informally, but these have been developed on a range of bases and cannot be aggregated.

Level of detail of the tracking mechanism

The level of detail of the tracking mechanism varies, and generally reflects the level of involvement by the Commission in expenditure decisions. However, in a number of areas the estimates are at a very broad level.

Mitigation and adaptation

There is no distinction in the reporting of climate expenditure between climate mitigation and climate adaptation impacts. In some cases, it is clear what the relevant climate policy

objective is, for example, flood defence expenditure is clearly related primarily to adaptation; renewable energy investments are primarily focused on mitigation. In other cases, however, Commission policymakers believe that it is impossible to separately identify adaptation and mitigation benefits, notably in the case of the impacts of Common Agriculture Policy expenditure.

Treatment of Just Transition/ compensatory expenditure

The proposals for the 2021-2027 period include the establishment of a "Just Transition Fund", whose expenditure is all, arguably, part of the broader European Green Deal package of decarbonisation measures. However, the Commission will take a conservative approach to the tracking of this expenditure, using the Intervention Fields mechanism applied to the European Structural and Investment Funds. A similar approach is proposed for the very significant level of funding proposed to be invested through the Next Generation EU package.

Treatment of climate costs

While climate costs are incorporated in impact assessments for most of the main EU expenditure programmes, they are not formally identified under the tracking mechanism.

Treatment of tax revenues

The Commission has limited tax-raising powers; the budget is largely financed through fiscal transfers agreed unanimously by the Member States. However, there are some mechanisms that are effectively tax instruments (auctioning of EU Emissions Trading Systems allowances), and whose proceeds are hypothecated to decarbonisation objectives through the New Entrants Reserve fund described above. Since these fall outside the EU budget, they are not tracked under the climate tracking system.

A.5 IRELAND

History

In the autumn of 2018, Ireland announced that it was joining the OECD's Paris Collaborative on Green Budgeting. The Irish Government also announced its intention to identify climate-related expenditures in the state budget, and to begin this process with the 2019 budget. It published a report entitled *An Introduction to the Implementation of Green Budgeting in Ireland*[52], which introduces the Green Budgeting concept, explains why the Irish government will implement it, what benefits can be expected and how the government will lead Ireland's work with the Paris Collaborative on Green Budgeting.

Part of the rationale for tracking climate expenditure is due to the launch of the first ever Irish Sovereign Green Bond in October 2018 by the National Treasury Management Agency (NTMA). Under the terms of this bond, any proceeds raised can only be devoted to eligible "green" expenditure and the Government must report to investors through an annual allocation report on the disbursement of these sums. These commitments mean it is necessary for Ireland to begin to track all Government expenditure on climate related matters on an ongoing basis. In tracking government expenditure, to ensure consistency and alignment to the requirement of managing green bonds, Ireland utilised the International Capital Markets Association (ICMA) standard definition of "green expenditure" as the basis for its budget tagging classification methodology[53].

Beyond this immediate need for reporting, a broader political commitment to implementing the Paris Agreement and achieving improved environmental outcomes is noted as the rationale behind implementing green budgeting. The process of green budgeting builds on existing experience with gender and equality budgeting in Ireland[54].

Methodology

The specific methodology is still being developed. The Government emphasises that the development of a climate tracking methodology will be an iterative process over several budget years. Ireland will emphasise measures that contribute to transparency (informing the public and decision-makers) and measures that contribute to efficiency (helping politicians to choose the measures or instruments that are most cost-effective and contribute to a knowledge-based climate debate). A first step has been to identify spending in the 2019 budget that is climate related. Climate-related expenses are defined as "any expenditure which promotes, in whole or in part and whether directly or indirectly, Ireland's transition to a low carbon, climate-resilient and environmentally sustainable

[52] Cremins, A., & Kevany, L. (2018) Department of Public Expenditure and Reform. Staff Paper 2018: An Introduction to the Implementation of Green Budgeting in Ireland.
[53] OECD. Working Party of Senior Budget Officials. (2020) Green Budget Tagging: Introductory Guidance & Principles (Working Draft) GOV/PGC/SBO(2020)11.
[54] OECD. Working Party of Senior Budget Officials. (2020).

economy." This definition means that only positive contributions to the climate that are included.

The proposed methodology explains that expenditure on programmes with multiple objectives can constitute climate-related expenditure if the scheme results in improved climate or environmental outcomes. However, the Department has adopted a "precautionary approach" to the practical application of this definition of climate-related expenditure. Programmes have been selected for inclusion in the table of climate-related expenditure only where it is evident that all, or at least the majority of investment in the programme in question, will support improved climate and environmental outcomes. Where elements of a programme may support improved climate and environmental outcomes, but it is clear that this represents only a minority of investment, the programme in question has been excluded from the table of climate-related expenditure.

The Government emphasises that the work done so far is only a first step towards providing information on the climate impact that may be useful for decision makers. It thus recognises the need for a method to analyse the climate-related expenses and states that this will be done in parallel with the work at the Paris Collaborative on Green Budgeting.

Sources

- Cremins, A., & Kevany, L. (2018) Department of Public Expenditure and Reform. Staff Paper 2018: An Introduction to the Implementation of Green Budgeting in Ireland.
- OECD. Working Party of Senior Budget Officials. (2020) Green Budget Tagging: Introductory Guidance & Principles (Working Draft) GOV/PGC/SBO(2020)11.

Scope of tracking mechanism

The definition of climate-related expenditure used is: "Any expenditure which promotes, in whole or in part and whether directly or indirectly, Ireland's transition to a low carbon, climate-resilient and environmentally sustainable economy."

Rio Markers

The Rio Markers are not used.

Other tracking systems

The system uses a simple binary classification as either climate related or not, with an attempt to be conservative in what is considered as mainly climate relevant. "Programmes have been selected for inclusion in the table of climate-related expenditure only where it is evident that all, or at least the majority of investment in the programme in question, will support improved climate and environmental outcomes. Where elements of a programme may support improved climate and environmental outcomes, but it is clear that this represents only a minority of investment, the programme in question

has been excluded from the table of climate-related expenditure[55]." The Government points out that this likely means that the current estimate "likely significantly underestimates the level of climate-related expenditure taking place across Government[56]."

The government adopted ICMA standards for classifying climate related expenditures[57]. A team of experts within the Department for Public Expenditure and Reform (DPER) conducts the initial tagging process, in close coordination with the Department of Communications, Climate Action and Environment. Validation checks are conducted in subsequent rounds by line ministry.

Treatment of climate-negative expenditure

At present the tracking system does not include any mechanism to record expenditure with negative climate impacts, but the Government plans to introduce such a mechanism.

Quantitative measurement of climate impact

At present there is no method for quantifying the climate impact of expenditure. Expenditures are considered annually.

Level of detail of the tracking mechanism

At present tracking is conducted at programme level.

Mitigation and adaptation

No distinction is made between adaptation and mitigation, although adaptation spending is included in the calculation.

Treatment of Just Transition/ compensatory expenditure

It does not appear that just transition is included in the spending overview.

Treatment of climate costs

Not considered.

[55] Cremins & Kevany, 2018. P. 15
[56] Cremins & Kevany, 2018. P. 16
[57] International Capital Markets Association. (2018). Green Bond Principles: Voluntary Process Guidelines for Issuing Green Bonds.

Treatment of tax revenues

The government report implies that it intends for taxation and other revenues to be considered in future, in line with the principles of green budgeting, but it is so far not included in any reporting.

A.6 NORWAY

History

The Norwegian Climate Change Act of 2017 mandates that the government report on the expected effects of its proposed budgets on GHG emissions[58]. Beyond this, no guidelines are provided regarding format and content. A technical committee was created in 2018 to make recommendations on a methodology for this process, which released a first report in 2019[59], and a second report in 2020. Its mandate has now been extended to 2023. There is no specific timeline or deadline for implementation of the new system. It will gradually be developed over the next few years, and aspects will be piloted by selected ministries with gradual updates and new initiatives being deployed annually as the system is refined.

This process was initiated following disagreements between political parties about the climate effects of different parts of the state budget. Parties made claims and counter-claims which led to confusion and disagreement about the basic facts, so it was decided to develop a methodology to measure the effects with a common understanding and assumptions. Although Norway had for some time reported on the climate impact of the state budget, a selection of inconsistent approaches and unsystematic budget items were used to make this determination according to the Technical Calculation Committee.

Methodology

The aim is to produce a robust methodology to report on the quantitative effects of the state budget on GHG emissions, including revenues and the broader economic effects of government spending. As of November 2020, the methodology is still being developed. Ministries today make a largely qualitative report based on their own discretionary assessment of the parts of the budget that can have a significant effect on GHG emissions. These are summarised in an annual report to parliament[60].

However, the Technical Calculation Committee has produced some reports detailing methodological considerations to lay the groundwork for an eventual unified approach by the Government. In the first report, published in 2019, it outlined existing methods for climate tracking and proposed some possible ways forward. The Committee proposed to investigate ways of creating a more robust system for analysing the impact of the state budget on GHG emissions, while pointing out the methodological complexity and assumptions required to conduct such work. Several methodological issues were highlighted as being important considerations:

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[58] Lovdata. (2017). Act relating to Norway's climate targets (Climate Change Act). Link.
[59] Norwegian Government. (2019). *Rapport fra Teknisk beregningsutvalg for klima 2019*. Link.
[60] Prop. 1 S (2020–2021) FOR BUDSJETTÅRET 2021 — Utgiftskapittel: 1400–1482 Inntektskapittel: 4400–4481 og 5578.Del 4. Rapportering etter Lov om klimamål (klimaloven). Link.

- What is the reference scenario? Should the comparison be made to a situation with no state expense or revenue? Or should it be compared to a change in the existing budget? If the latter, should it be compared to a historical reference, or to emissions projections? What about the effects of spending in Norway outside the country?
- Should both long- and short-term effects be considered? How?
- What is the scope of evaluation? Should all budget items be considered, or only those with the largest direct effect on emissions?
- Should all emissions be quantified, or can some only be described qualitatively?
- How to take into account the fact that budget items interact with each other and can either amplify or weaken the effect on emissions?

In the second report, published in 2020, the Committee considered various approaches to how appropriations of the central government revenue and expenditure could be categorized, as a first step. The Committee further points out that categorisation in itself provides no information about the climate effect of budget items and should only be used to sort out items for which closer emission calculations should be made. An independent consultant's report proposed a possible methodology. This involved a six-step process.

In step I budget items are sorted out and categorised as either neutral or additional. Only the additional ones are taken on to step II. These budget items must meet at least one of the following criteria:

- affects the price of emissions;
- affects the price of emission-intensive goods or services;
- affects the price of substitutes;
- affects supply or demand for emission-intensive goods or services;
- aims to increase R&D in the climate area;
- aims to increase information about climate solutions.

Budget lines that do not meet the above criteria are believed to have a neutral climate effect and are not included further in the categorisation. The argument is that even if all items in the state budget affect emissions, to a greater or lesser degree, it can be assumed that they are neutral where the emission intensity is about equal to the average for economic activity. In this case the neutral climate effect can be viewed as a redistribution of emissions, within and/or between private and public sector.

This means that the majority of the budget is considered as "neutral", simplifying the further analysis. However, neutral budget items could still lead to emission changes to the extent that they contribute to an expansionary or contractionary budget. This effect will be caught in an additional "top-down" modelling exercise for the budget that goes beyond the specific categorisation of budget lines.

Budget items are then sorted by sector in which the effects have an influence, in order to start linking them to quantitative methodologies. Then, budget items are sorted by

time horizon, i.e. short-term (this year or next); long-term effects (following next year and until 2030); both short- and long-term; or hard to determine time horizon. In practice many items will fall in the latter category, and a simplification could be to ignore the time horizon question. However, items such as R&D and infrastructure investments are assumed to have long-term effects in reducing emissions.

A further step sorts budget lines by type of instrument: financial instrument, direct management or information. Going further, the next step divides the budget lines effects into direct and indirect effects. At this point a qualitative assessment of changes in emissions per unit of currency can be determined.

The above methodology is only a proposal, and the Technical Committee highlights the following important issues:

- A categorisation which distinguishes between significant and insignificant effects is important to make the process manageable. This is important for the implementations of a manageable annual assessment.
- It is important to identify areas of spending which may not be directed toward climate policy or have a well-known direct climate effect, but nonetheless have a significant effect on climate.
- Since many budget items will be rated as "neutral" and removed from the direct "bottom-up" calculation, it is important to have another level of "top-down" analysis to assess the contractionary or expansionary economic effects of the budget as a whole.
- The review shows that it is difficult to find objective properties of budget items that make it possible to develop simple, transparent rules for categorizing records according to climate effect. A categorisation that to a large extent is based on judgment is resource-intensive and places high demands on knowledge and competence of those who use it. However, once established it may be relatively easy to reuse the methodology as the structure of the budget remains similar from year to year.
- The method proposed, using a series of categorisations, is also relatively flexible and allows users to easily analyse different categories of expenditure.
- The budget also includes transfers to other organizations or institutions where it can be difficult to know exactly which activities are triggered and the emissions effect of these activities.

Next steps

The Committee has recommended that selected ministries begin to implement this process in order to test out the proposed methodology. A top-down macro-economic model to assess the overall effects of the budget also needs to be developed. The two approaches will ultimately be used in tandem to give a realistic assessment.

Sources

- First report from Teknisk beregningsutvalg for klima. Chapter 7 is on methodology for assessing effects from the state budget on GHG emissions. Conclusions can be found in chapter 8.4.
- Second report from Teknisk beregningsutvalg. Part 2 (chapter 6 and 7) is on the same topic. Here is a report from Menon and CICERO that was commissioned by TBU on a possible way to categorize the budget.
- An unofficial English version of the Climate Change Act, which among other things sets out the details on how the Government every year shall give an account to the parliament on the expected effect of the proposed budget on greenhouse gas emissions. Finally, here is a link to the most recent account on this topic.

Scope of tracking mechanism

The scope is the entire state budget, including revenues, expenses, and the indirect economic effects of government spending. Consideration is also being made of the effects of this spending outside of Norway, although it is not completely clear yet how this will be done.

Rio Markers

The system does not use Rio makers, but does categorise spending in various ways. See explanation above.

Treatment of climate-negative expenditure

The system considers both negative and positive spending and revenues. Indeed, the framers consider this to be an indispensable feature of any system to track climate impact.

Quantitative measurement of climate impact

The system is attempting to establish a quantitative assessment of the state budget's impact on emissions. As of now, the estimates are still primarily qualitative, but the Committee is trying to develop a reasonably robust quantitative system within the next few years.

Level of detail of the tracking mechanism

The system analyses the level of budget "items". There are more than 1600 "items" on the state budget (expenses and taxes etc.). Some of these are big and some are small. These correspond more or less to a "programme" level, but may even be larger than that in some cases. One aim of the methodology being developed is to avoid going into too much detail so as to avoid administrative burden. Thus, some of the effort is in determining broad categories of spending that can then be quantified using a broader

mechanism. Methods of quantification at a disaggregated level that have been discussed include partial equilibrium models, historical data, emissions coefficients, elasticities, etc.

One issue that arises is the element of how to quantify emissions when funding is provided to another entity. To give one example, the state enterprise Enova receives funding from the state budget, but it is to a high extent up to Enova to design programs and to decide which projects receive funding. Thus, the national government does not know in advance the type of projects that will receive funding in this particular budget item. Road construction work and funding to the municipalities are other examples of areas where it is difficult for the government to assess (in advance) the individual activities and projects that will take place, because these decisions are taken on a different level after the initial budget allocation.

Mitigation and adaptation

The system of climate spending tracking considers the effect on climate mitigation. The Climate Law however requires a separate "account of how Norway is preparing for and adapting to climate change." A report is thus prepared for the parliament annually, but this is a more traditional report on activities.

Treatment of Just Transition/ compensatory expenditure

The system is being designed to track direct and indirect emissions effects of the state budget. It would thus consider, for example, spending designed to support renewable energy industry, or re-training employees in an energy intensive industry in terms of the effects this spending had on emissions. There is a distinction made between long- and short-term effects: spending that might not have immediate effects on emissions such as training might be considered to have long-term effects. However, there is no specific category for just transition expenditure, and spending that is considered to have only a neutral effect on emissions, would not be considered.

Treatment of climate costs

As with adaptation, the Climate Law requires an account of how Norway is preparing for and adapting to climate change, which includes an overview of the costs of climate change. The report indicates that work is underway across sectors to assess these costs, but they are not included in the methodological considerations in the assessment of the budget.

Treatment of tax revenues

The system includes tax revenues and all other revenues in the same way as expenditures.

A.7 NEPAL

History

Nepal works with a Climate Budget Tagging (CBT) process, which has been in use since fiscal year 2013/14 across government spending allocations deemed as "climate relevant" at programme level to assess the level of climate relevant spending by the government. The CBT process was instituted following the Climate Public Expenditure and Institutional Review (CPEIR) conducted by the National Planning Commission in 2011.

In 2017 the government proposed various reforms as part of the Nepal Climate Change Financing Framework (CCFF). The tracking methodology is also able to report on the proportions of this allocation funded by the government itself and international donors. UNDP has highlighted the consultation and participative process for ministries to participate in the development of the methodology as a good practice.

Methodology

Under the current methodology, a list of eleven climate relevant categories of programmes was developed to guide climate relevance of spending in the national budget. These are applied to individual budget lines of the different ministries.

The budgets of climate relevant programmes are reviewed in more depth; each underlying budget line is marked as climate relevant or not. The budgets for the relevant activities are summed and calculated as a percentage of the total budget for that programme. If the climate relevant percentage of the total budget exceeds 60%, the programme is marked as "highly relevant"; if between 20% to 60%, marked as "relevant"; below 20% "neutral". The whole of the budget for the programme is then entered into the category computed above.

Nepal is exploring further ways to refine its tagging method to improve budget accuracy. The system used until now has been relatively simple, making it possible to apply it across all government ministries. However, it can be criticised for not being sufficiently precise, not independently audited, and over-estimating the level of climate relevant expenditure.

A new pilot methodology unpacks the eleven criteria into seven agriculture specific typologies for defining climate relevance of programmes and the activities under them. Further sector specific methodologies will be developed following the pilot.

The relevance of an activity is assessed based on the following three non-financial factors:

1. The degree to which an activity targets the correct beneficiaries [including gender];
2. Whether it links to a climate change policy;
3. Whether it is based on a climate risk assessment.

If an activity satisfies two or more of these factors, it is classified as "highly relevant"; and if it satisfies only one, it is classified as "relevant." This new approach facilitates the tagging process at the design stage of a project rather after the project has been developed.

One weakness of the system has been identified as the lack of transparency about climate relevance of local government expenditures, despite the declared importance of these for climate mitigation and adaptation. Other weaknesses that have been identified include the lack of coordination of the methodology, need for capacity building across the government, and the need for more complementary information such as regional distribution, and effect on other Sustainable Development Goals indicators[61].

As part of standard government reports the Ministry of Finance includes reporting on the climate budget in the Consolidated Financial Statements, Economic Survey Report, and as annex in the Red Book and the Budget Speech.

In addition: CBT data has been used by a local NGO to develop a Climate Citizens' Budget, an overview document summarizing Nepal's main climate change risks and government spending, to increase public awareness[62].

Sources

- International Budget Partnership (IBP) and UNDP. (2019) Nepal Citizens' Climate Budget. Link.
- Ministry of Finance. (2017) Climate Change Financing Framework: A roadmap to systematically strengthen climate change mainstreaming into planning and budgeting. Ministry of Finance, Government of Nepal, Kathmandu, Nepal. Link.
- UNDP. (2019) CLIMATE CHANGE – KNOWING WHAT YOU SPEND. A guidance note for Governments to track climate finance in their budgets. Link.
- UNDP. (2017) Budgeting for a greener planet: An assessment of climate change finance accountability in Bangladesh, India, Nepal, and the Philippines. Link.
- National Planning Commission, Nepal. (2013) Climate Change Budget Code Application Review. Link.

Scope of tracking mechanism

The entire national budget is assessed. However, according to UNDP guidance documents the system thus far implemented in Nepal can be considered as having less depth of assessment of the spending, meaning that it is assessed at a relatively superficial level, without a lot of checks on the assessment or the value of the spending. However, the initially simple CBT methodology is being elaborated over time to address specificities of

[61] Ministry of Finance. (2017) Climate Change Financing Framework: A roadmap to systematically strengthen climate change mainstreaming into planning and budgeting. Ministry of Finance, Government of Nepal, Kathmandu, Nepal. Link.
[62] International Budget Partnership (IBP) and UNDP. (2019) Nepal Citizens' Climate Budget. Link.

different sectors. A more detailed definition of climate expenditure and weighting is being piloted at the Ministry of Agriculture[63].

Rio Markers

The system used is not exactly the Rio marker system, although programmes are divided into "highly climate relevant", "climate relevant", and "neutral", based on a calculation of the climate relevant spending within the programme. If more than 60% it is classed as "highly relevant"; if between 20% to 60%, marked as "relevant"; below 20% "neutral".

Treatment of climate-negative expenditure

Negative expenditure is not considered.

Quantitative measurement of climate impact

N/A

Level of detail of the tracking mechanism

The tracking mechanism assesses the spending within "climate relevant" expenditure in detail, but then categorises the programme into one of the three categories based on a calculation of the climate relevant spending within the programme.

Mitigation and adaptation

Currently climate change expenditures are not classified into adaptation and mitigation.

Treatment of climate costs

Climate costs (loss and damage) are a major issue that is highlighted by the Nepalese government, and these costs are to be considered within the climate policy planning cycle introduced in the CCFF, but they are not directly counted within the climate tracking methodology.

Treatment of tax revenues

No separate identification of climate tax revenues.

[63] UNDP. (2019) CLIMATE CHANGE – KNOWING WHAT YOU SPEND. A guidance note for Governments to track climate finance in their budgets. Link.

A.8 MEXICO

History

In 2012, Mexico's General Law on Climate Change established a Climate Change Fund, aimed at channelling public and private (inter)national financial resources towards the implementation of climate adaptation and mitigation activities. This fund falls under the responsibility of the Ministry of Environment and Natural Resources[64].

However, Mexico's climate law faces challenges, similar to those in other emerging economies such as financial and institutional capacity. For example, the Climate Change Fund has received insufficient funding and the allocation of public resources for climate policy under the law is lacking in its implementation and strategy[65].

From 2013, information on climate financing in the Mexican federal government expenditure budget was included in the Transverse Annex 15: Resources for Mitigation of the Effects of Climate Change. This annex was updated in 2015 to include provisions on climate adaptation, making it the Transverse Annex 16: Resources for Adaptation and Mitigation of the Effects of Climate Change[66] (AT-CC).

Methodology

The National Institute of Ecology and Climate Change developed an MRV methodology for the tracking of finance for **climate change adaptation**. The methodology is based on six guiding principles[67].

1. Effective MRV requires accountability and transparency on the flows and allocation of financial resources.
2. Integrity: report must cover all relevant sources, instruments and uses of funds.
3. Defining clear criteria for adaptation to climate change.
4. Criteria and parameters for MRV that feed into an impact assessment of the financial resources.
5. Consistency: subsequent reports must use the same methodology, unless the change in methodology is transparently (re)calculated.
6. Progression over time: reporting must adapt to changes in (inter)national priorities or policy instruments.

The AT-CC allocates climate policy expenditure based on budgetary criteria (e.g. public spending efficiency), and not on climate-related criteria. The methodology used to determine how much expenditure is allocated to which sector, should be included in the

[64] The Pacific Alliance, Climate Finance MRV - Mexico: Baseline Report Series (2020).
[65] LSE & University of Leeds, Mexico's General Law on Climate Change: Successes and challenges (2018).
[66] The Pacific Alliance, Climate Finance MRV - Mexico: Baseline Report Series (2020).
[67] The Pacific Alliance, Climate Finance MRV - Mexico: Baseline Report Series (2020).

annexes, however in practice, this inclusion is limited. Moreover, there is no systematic identification of the impact of public expenditure under the AT-CC, nor is there a system of in place to monitor the impact of projects that do not fall under the AT-CC[68].

Recently, the Pacific Alliance, including Chile, Colombia, Mexico and Peru launched national studies aimed at strengthening their climate finance tracking and reporting systems[69].

Sources

- The Pacific Alliance, Climate Finance MRV - Mexico: Baseline Report Series (2020).
- The Pacific Alliance, Countries of the Pacific Alliance advance in strengthening their climate finance tracking and reporting systems (2020).
- LSE & University of Leeds, Mexico's General Law on Climate Change: Successes and challenges (2018).

The structured information section for Mexico's climate tracking mechanism was omitted from this case study because the above section includes all the relevant information and there is no information on the treatment of just transition, climate-negative expenditure, climate costs or tax revenue.

[68] The Pacific Alliance, Climate Finance MRV - Mexico: Baseline Report Series (2020).
[69] The Pacific Alliance, Countries of the Pacific Alliance advance in strengthening their climate finance tracking and reporting systems (2020).

A.9 WORLD BANK

History

Since 2011, the World Bank Group has jointly reported their annual climate financing for climate mitigation and adaptation projects as part of a consortium of Multilateral Development Banks[70] (MDB). In 2015, these MDBs agreed to adopting a common approach. to tracking climate change mitigation[71] and adaptation[72] finance to facilitate transparent reporting and discussion. Moreover, two working groups were developed in order to improve on the methodologies and to focus on challenges of tracking. The first, coordinated by the EIB, covers climate mitigation, while the second, coordinated by the Inter-American Development Bank, covers climate adaptation[73].

In December 2019, the climate change adaptation working group published a discussion paper[74] which establishes principles, core concepts and characteristics of climate resilience metrics as well as a framework for these metrics in financing operations, applicable for MDBs as well as other financial institutions. Moreover, the climate change mitigation working group aims to finalise its review of their tracking methodology in 2020, with plans to utilise the new methodology in 2021.

From the most recent Joint Report, 'MDB climate finance' is defined as "financial resources committed by MDBs to development operations and components thereof which enable activities that mitigate climate change and support adaptation to climate change." And 'climate co-finance' refers to the "volume of financial resources invested by other public and private external parties alongside MDBs for climate mitigation and adaptation activities."

Methodology

As mentioned above, the tracking of climate mitigation and adaption finance is based on Common Principles developed jointly by the MDBs and the International Development Finance Club (IDFC) aimed at establishing a common approach to tracking and reporting.

The common methodology is called a 'Climate Components Methodology' and, while the methodology is aligned with Rio Markers and recognised by the official OECD

[70] African Development Bank (AfDB), the Asian Development Bank (ADB), the Asian Infrastructure Investment Bank (AIIB), the European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB), the Inter-American Development Bank Group (IDBG), the Islamic Development Bank (IsDB).
[71] MDBs consortium, Common Principles for Climate Mitigation Finance Tracking (2015).
[72] MDBs consortium, Common Principles for Climate Change Adaptation Finance Tracking (2015).
[73] MDBs consortium, 2019 Joint Report on Multilateral Development Banks' Climate Finance.
[74] Inter-American Development Bank, A Framework and Principles for Climate Resilience Metrics in Financing Operations (2019).

Guidance, it is different to the Rio Markers approach[75] (see 2.2 below). For adaptation finance, the methodology attempts to capture the incremental cost of adaptation activities and is project- and location-specific in accounting for a response to climate vulnerabilities. For mitigation finance, estimates are based on a list of activities in sectors and subsectors that are deemed to support low-carbon development pathways.

Joint methodology for tracking climate change adaptation finance

The methodology to climate adaptation finance tracking is based on a three-step approach which is aligned with the Rio Marker Guidance[76] and is recommended by the OECD as a "best practice":

1. Establishing the context of vulnerability to climate change of the project: A project considered as contributing to climate adaptation must be supported by robust evidence. This may be based on original assessments of climate change vulnerability, such as those carried out as part of project preparation or existing analyses or reports.
2. Stating the intent of the project to reduce climate change vulnerability: this step distinguishes a development project contributing to climate change adaptation from a standard development project.
3. Defining a clear and direct link between climate change vulnerability and specific project activities: adaptation finance estimations consider only the finance allocated to specific project activities that are clearly linked to the project's climate-change vulnerability context.

Joint methodology for tracking climate change mitigation finance

The methodology for tracking climate mitigation finance is based on nine guiding principles.

1. The Principles are focused on the activity to be executed, not its purpose, actual results of origin of the financial resources.
2. Project reporting is ex-ante project implementation at board approval or financial commitment.
3. Adopt a conservative approach to under-report climate finance where data is unavailable.
4. Mitigation activities are required to be disaggregated from non-mitigation activities. Where disaggregation is needed but not possible a conservative-based approach assessment can be used to identify the proportion of the project that covers climate mitigation activities.
5. Mitigation activities or projects can consist of a stand-alone project, multiple stand-alone projects under a larger program, a component of a stand-alone project or a program financed through a financial intermediary.

[75] OECD, DAC Rio Markers for Climate Handbook.
[76] OECD, Update on MDB Joint Work on Climate Finance Tracking (2015).

6. Reporting according to this methodology and the Common Principles does not imply evidence of climate change impacts. Moreover, any inclusion of climate change impacts is not a substitute for project-specific theoretical and/or quantitative evidence of GHG emission mitigation.
7. Eligibility for activities that can be counted towards mitigation finance is conditional to criteria such as their contribution to long-term structural changes.
8. The methodology assumes the exclusion of projects that are included in the typology list (see table 1[77]) but do not mitigate emissions due to their specific circumstances.
9. Avoid double-counting: two methods currently exist to account for double-counting. The first method relies on an MDB's individual processes to determine which proportion is counted as mitigation or adaptation. Another method used by MDBs is to report this expenditure as a separate climate finance category designated to project which contribute to both climate mitigation and adaptation[78].

Sources

- MDBs consortium, Common Principles for Climate Mitigation Finance Tracking.
- MDBs consortium, Common Principles for Climate Change Adaptation Finance Tracking.
- MDBs consortium, 2019 Joint Report on Multilateral Development Banks' Climate Finance:
    - Annex B: Joint methodology for tracking climate change adaptation finance.
    - Annex C: Joint methodology for tracking climate change mitigation finance.

Scope of tracking mechanism

The scope of climate-related investment covers financial resources from the MDBs own accounts and MDB-managed external resources on climate change mitigation and adaptation activities. Since 2021, they also report on co-financing from other public and private entities for on climate change mitigation and adaptation activities.

The 2019 Joint Report presents the climate finance commitments in two groups. The first being those commitments made towards low-income and middle-income economies, and the second being high-income economies which includes investment in global and multi-regional projects.

Rio Markers

The 'Climate Components Methodology' is different to the Rio Markers approach. The methodology measures specific climate components committed to development operations that enable activities that mitigate or adapt to climate change in developing and

[77] MDBs consortium, Common Principles for Climate Mitigation Finance Tracking (2015).
[78] MDBs consortium, 2019 Joint Report on Multilateral Development Banks' Climate Finance.

emerging economies[79]. The components are reported on "as is" basis and range from the full investment amount to only a small fraction of a development project that relates specifically to climate change mitigation or adaptation objectives. Rather than providing an indication of mainstreaming, this approach aims to provide a conservative account of finance, or financial components, that specifically support climate objectives.

The MDB's methodology three-step approach to climate adaptation finance tracking is considered to be aligned with the Rio Marker Guidance[80] and is recommended by the OECD as a "best practice".

Treatment of climate-negative expenditure

This is no mechanism for recording expenditure on negative climate impacts / not applicable.

Quantitative measurement of climate impact

The 2019 Joint Report does not attempt to measure the reductions in GHG emissions caused by expenditure.

Level of detail of the tracking mechanism

The tracking mechanism measures specific climate components committed to development operations that enable activities that mitigate or adapt to climate change in developing and emerging economies. The components are reported on "as is" basis and range from the full investment amount to only a small fraction of a development project that relates specifically to climate change mitigation or adaptation objectives.

Mitigation and adaptation

The system distinguishes between mitigation and adaptation, and there are mechanisms in place to avoid the double-counting in the case of expenditure contributing to both climate mitigation as well as adaptation. The MDBs are working on a universal approach to harmonise reporting in this aspect, but for now there are two general methods for avoiding double-counting. The first method relies on an MDB's individual processes to determine which proportion is counted as mitigation or adaptation. Another method used by MDBs is to report this expenditure as a separate climate finance category designated to project which contribute to both climate mitigation and adaptation[81].

Treatment of Just Transition/ compensatory expenditure

Not applicable.

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[79] OECD, Methodology: Aligning Development Co-operation and Climate Action (2019).
[80] OECD, Update on MDB Joint Work on Climate Finance Tracking (2015).
[81] MDBs consortium, 2019 Joint Report on Multilateral Development Banks' Climate Finance.

Treatment of climate costs

The 2019 Joint Report does not take into account the costs of climate impacts, however, other MDB publications do address this issue.

Treatment of tax revenues

Not applicable.

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