



# SDG TAXATION FRAMEWORK (STF)



## HANDBOOK



DRAFT

## TABLE OF CONTENTS

<b>List of Abbreviations and Acronyms</b>	<b>8</b>
<b>1. Introduction: Taxation and Sustainable Development Goals</b>	<b>10</b>
1.1 UNDP Tax for SDGs Initiative	12
1.2 SDG Taxation Framework	13
<b>2. Overview of the SDG Taxation Framework (STF)</b>	<b>16</b>
2.1 Purpose of the STF	16
2.2 STF Implementation	17
2.3 Scope of STF evaluation – the Toolkit	18
2.4 Architecture of the self-evaluation framework	19
2.5 Hierarchy of the self-evaluation framework	20
2.6 Scoring methodology	21
2.7 Structure of performance evaluation for each SDG	22
<b>3. Goal 17: Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development</b>	<b>23</b>
3.1 Target 17.1: Domestic Resource Mobilization	23
3.1.1 Background and good practices	23
3.1.2 Desired outcome	24
3.1.3 Performance measurement framework for Target 17.1	28
3.2 Targets on Global Partnerships	42
3.2.1 Background and good practices	42
3.2.2 Desired outcome	42
3.2.3 Performance measurement framework for Targets 17.3, 17.7, 17.9 and 17.16	46
<b>4. Goal 1: End Poverty in all its forms everywhere</b>	<b>48</b>
4.1 Background and good practices	48
4.2 Desired outcome	49
4.3 Performance measurement framework for Target 1.1	50

4.4	Performance measurement framework for Target 1.2	50
4.5	Performance measurement framework for Target 1.3	52
<b>5.</b>	<b>Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture</b>	<b>53</b>
<hr/>		
5.1	Background and good practices	53
5.2	Desired outcome	54
5.3	Performance measurement framework for Target 2.1	56
5.4	Performance measurement framework for Target 2.4	59
5.5	Performance measurement framework for Target 2.b	61
<b>6.</b>	<b>Goal 3: Ensure healthy lives and promote well-being for all at all ages</b>	<b>63</b>
<hr/>		
6.1	Background and good practices	63
6.2	Desired outcome	64
6.3	Performance measurement framework for Target 3.4	67
6.4	Performance measurement framework for Target 3.5	70
6.5	Performance measurement framework for Target 3.8	73
6.6	Performance measurement framework for Target 3.9	77
6.7	Performance measurement framework for Target 3.a	79
6.8	Performance measurement framework Target 3.b	81
<b>7.</b>	<b>Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all</b>	<b>83</b>
<hr/>		
7.1	Background and good practices	83
7.2	Desired outcome	84
7.3	Performance measurement framework for Target 4.1	86
7.4	Performance measurement framework for Target 4.2	89
7.5	Performance measurement framework for Target 4.3	91
<b>8.</b>	<b>Goal 5: Achieve gender equality and empower all women and girls</b>	<b>93</b>
<hr/>		
8.1	Background and good practices	93
8.2	Desired outcome	93
8.3	Performance measurement framework for Target 5.1	99
8.4	Performance measurement framework for Target 5.5	104

8.5	Performance measurement framework for Target 5.a	107
8.6	Performance measurement framework for Target 5.c	109
<b>9.</b>	<b>Goals 6: Ensure availability and sustainable management of water and sanitation for all</b>	<b>110</b>
<hr/>		
9.1	Background and good practices	110
<b>10.</b>	<b>Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all</b>	<b>111</b>
<hr/>		
10.1	Background and good practices	111
10.2	Desired outcomes	112
10.3	Performance measurement framework for Target 7.1	117
10.4	Performance measurement framework for Target 7.2	118
10.5	Performance measurement framework for Target 7.3	120
10.6	Performance measurement framework for Target 7.b	122
<b>11.</b>	<b>Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all</b>	<b>124</b>
<hr/>		
11.1	Background and good practices	124
11.2	Desired outcome	124
11.3	Performance measurement framework for Target 8.3	126
11.4	Performance measurement framework for Target 8.9	128
<b>12.</b>	<b>Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation</b>	<b>130</b>
<hr/>		
12.1	Background and good practices	130
12.2	Desired outcome	130
12.3	Performance measurement framework for Target 9.3	131
12.4	Performance measurement framework for Target 9.5	134
12.5	Performance measurement framework for Target 9.b	136
<b>13.</b>	<b>Goal10: Reduce inequality within and among countries</b>	<b>138</b>
<hr/>		
13.1	Background and good practices	138
13.2	Desired outcome	138

13.3	Performance measurement framework for Target 10.4	144
13.4	Performance measurement framework for Target 10.6	150
13.5	Performance measurement framework for Target 10.a	154
<b>14.</b>	<b>Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable</b>	<b>156</b>
14.1	Background and good practices	156
14.2	Desired outcome	157
14.3	Performance measurement framework for Target 11.a	162
<b>15.</b>	<b>Goal 12: Ensure sustainable consumption and production patterns</b>	<b>166</b>
15.1	Background and good practices	166
15.2	Desired outcome	167
15.3	Performance measurement framework for Target 12.3	170
15.4	Performance measurement framework for Target 12.5	172
<b>16.</b>	<b>Goal 13: Take urgent action to combat climate change and its impacts</b>	<b>174</b>
16.1	Background and good practices	174
16.2	Desired outcome	175
16.3	Performance measurement framework for Target 13.1	180
16.4	Performance measurement framework for Target 13.2	187
<b>17.</b>	<b>Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development</b>	<b>189</b>
17.1	Background and good practices	189
17.2	Desired outcome	189
17.3	Performance measurement framework for Target 14.1	192
<b>18.</b>	<b>Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss</b>	<b>196</b>
18.1	Background and good practices	196
18.2	Desired outcome	197
18.3	Performance measurement framework for Target 15.3	198

<b>19. Goal 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels</b>	<b>199</b>
<hr/>	
19.1 Background and good practices	199
19.2 Desired outcome	199
19.3 Performance measurement framework for Target16.4	201
19.4 Performance measurement framework for Target 16.5	205
19.5 Performance measurement framework for Target 16.6	209
19.6 Performance measurement framework for Target 16.8	213
<b>Bibliography</b>	<b>215</b>

DRAFT

## List of Abbreviations and Acronyms

BEPS	Base Erosion and Profit Shifting
CDCTC	Child and Dependent Care Tax Credit
CIT	Corporate Income Tax
CO2	Carbon Dioxide
DRM	Domestic Resource Mobilization
DTF	Distance to Frontier
ECOSOC	Economic and Social Council
EI	Extractive Industries
FAO	Food and Agriculture Organisation
FSDO	Financing for Sustainable Development Office
GDP	Gross Domestic Product
IEA	International Energy Agency
ILO	International Labor Organization
IMF	International Monetary Fund
IMO	International Maritime Organization
IOC-UNESCO	Intergovernmental Oceanographic Commission of UNESCO
IRENA	International Renewable Energy Agency
ITC	International Trade Centre
LDC	Least Developed Countries
MNC	Multinational Corporations
MNE	Multinational Enterprises
OECD	Organisation for Economic Cooperation and Development
OHCHR	Office of the United Nations High Commissioner for Human Rights
PEFA	Public Expenditure and Financial Accountability
PIT	Personal Income tax
R&D	Research and Development
SDG	Sustainable Development Goals
SSB	Sugar Sweetened Beverages













SSC	Social Security Contributions
STF	SDG Tax Framework
TIWB	Tax Inspectors Without Borders
UHC	Universal Healthcare
UNCCD	United Nations Convention to Combat Desertification
UNCDF	United Nations Capital Development Fund
UNCTAD	United Nations Conference on Trade and Development
UNDESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Program
UNDRR	United Nations Office for Disaster Risk Reduction
UNEP	United Nations Environment Programme
UNEP-WCMC	UNEP- World Conservation Monitoring Centre
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNESCO-UIS	UNESCO Institute for Statistics
UNFCCC	United Nations Framework Convention on Climate Change
UNFPA	United Nations Population Fund, formerly UN Fund for Population Activities
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
UNODC	United Nations Office on Drugs and Crime
UNSD	United Nations Statistics Division
UNTC	United Nations Tax Committee
UNU	United Nations University
UNWTO	United Nations World Tourism Organization
VAT	Value Added Tax
WHO	World Health Organization
WHO-FCTC	WHO Framework Convention on Tobacco Control
WTO	World Trade Organization

## 1. Introduction: Taxation and Sustainable Development Goals

The United Nations' Sustainable Development Goals (SDGs), adopted in 2015, outline the key global challenges faced by humanity and provide a spirited framework of 17 goals to address them within a reasonable timeline of 15 years till 2030. The challenges include poverty, hunger, inequality, climate change, environmental degradation, public health problems, gender inequality, domestic resource mobilization, injustice, and conflicts. In effect, the SDGs are a universal call for action for achieving a better and more sustainable future for all humankind. Each of the 17 goals has specific targets, and each target has one to four indicators to measure the progress toward reaching the target. The SDGs identify targets to be achieved and specify what the indicators are to achieve the targets. They do not identify the how's of achieving these goals. The path to reaching each goal depends very much on the social, economic and political context of each country. There are, however, key policy instruments which can be highly effective in tackling specific targets. Tax policies are one set of important tools available to policy makers. Other significant policy interventions can come through budget allocations, subsidies, grants, cash transfers, regulatory enforcement, advocacy, and international assistance. These policy mixes typically work in sync.

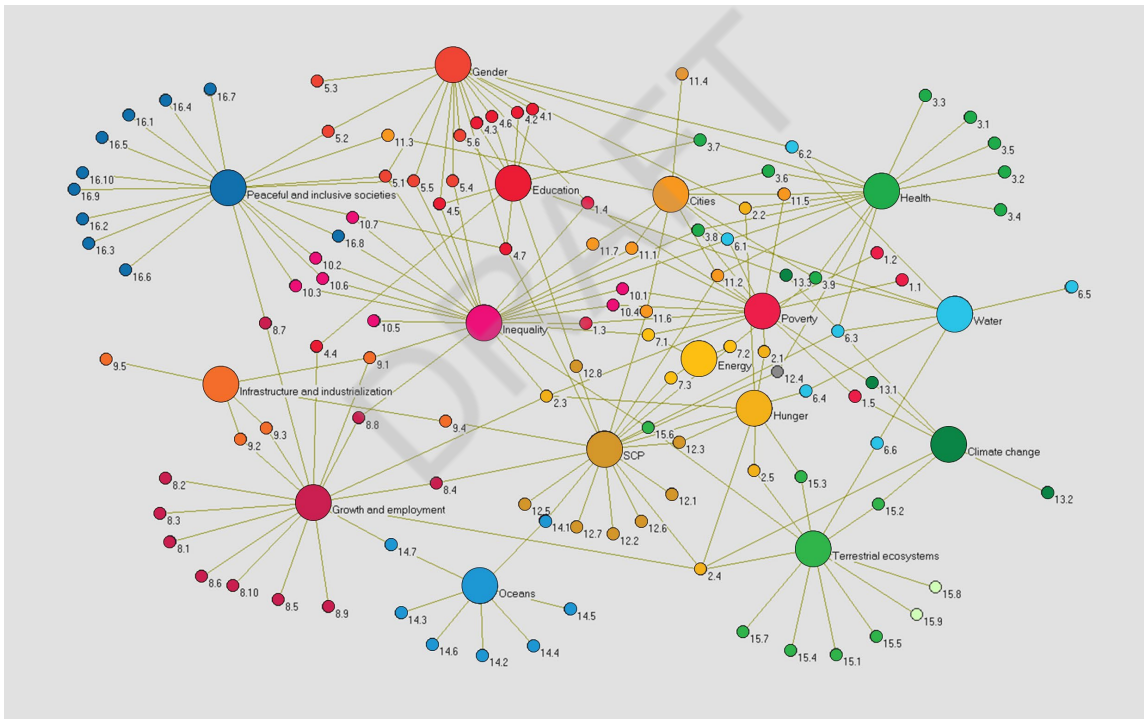
In order to monitor UN Member States' progress in achieving SDGs, the SDG Report Dashboard<sup>1</sup> presents an SDG Index Score for each SDG, with color-coded dots and arrows for each SDG. The dashboard tracks annual progress towards achieving SDG goals by each UN Member State. However, it does not show which policy mix – tax, budget support, regulations, or international assistance – were responsible for the effort to achieve the particular SDG.

SDG Report Color-Coded Dashboard	
	A green dot in the dashboard indicates that the particular SDG indicator has been achieved already.
	A green arrow pointing upwards means the SDG achievement is on track and maintained.
	A yellow dot in the dashboard indicates that challenges remain for the SDG.
	A yellow arrow pointing obliquely upwards means the SDG is moderately improving.
	An orange dot in the dashboard indicates that significant challenges remain for the SDG.
	An orange arrow pointing sideways means the SDG is stagnating.
	A red dot in the dashboard indicates that major challenges remain for the SDG.
	A red arrow pointing downwards means the SDG is decreasing.
	Information Unavailable
	Trend Information Unavailable

<sup>1</sup> <https://dashboards.sdindex.org/profiles>

In the ultimate analysis, most SDGs are highly interdependent and interconnected. For example, SDG 1 (End Poverty), SDG 2 (Zero Hunger), SDG 8 (Decent Work), SDG 10 (Reduced Inequalities) and SDG 16 (Peaceful and Inclusive Societies) are interdependent. Likewise, there are several SDGs that have a bearing on environmental protection: SDG 6 (Clean Water and Sanitation), SDG 7 (Clean Energy), SDG 11 (Sustainable Cities), SDG 13 (Climate Action), SDG 14 (Sustainable Marine Life) and SDG 15 (Terrestrial Ecosystems). SDG 17 (Global Partnership and Domestic Resource Mobilization -DRM) are critical for all other SDGs since revitalizing the global partnership and DRM provide the resources needed to support funding for all SDGs. These interconnections lead to both complementarity and tradeoffs and provides a blueprint for global synergy and collaboration between developed and developing countries to end poverty and hunger, reduce inequality and injustice, foster environmental protection, and safeguard the well-being of all people. Figure 1 illustrates this interconnection.

**Figure 1 Interconnectivity of the Goals**



Source: UNDESA

‘The goals and targets should not be seen as an additive structure, but as a system of synergetic re-enforcements. Instead of looking at the goals as separate identities, they should be treated as cogwheels that are dependent and interact with one another. The progress and achievement of the SDGs in the future will depend on whether the synergies and trade-offs can be identified and tackled. Policies that foster “cross-sectoral and cross-goal” synergetic relations will significantly help the operationalization of the SDGs.’

[A. Wong, *the Interconnectedness of Sustainable Development Goals: Boom or Gloom. Earth.org. Policy and Economics.*]

## 1.1 UNDP Tax for SDGs Initiative

UNDP’s Tax for SDG initiative brings taxation to the center stage of the SDG agenda. Carefully considered tax policies can play a critical role in both encouraging and realizing the SDGs (while poorly designed tax policies can actually serve to undermine the achievement of SDG priority targets). The link between taxation and good governance is not a new concept<sup>2</sup>, and even in the third century BCE, an Indian treatise, *Arthashastra* acknowledged in Sanskrit “*Kosh mulo dand*” meaning “taxation is the root of governance”.

The Tax for SDGs Initiative is designed to help governments take innovative approaches to taxation that can, on the one hand, improve domestic revenue mobilization to finance the SDG initiatives and, on the other, use tax policy tools to influence economic and social behavior and nudge countries to closer to the achievement of targeted SDGs.

Taxes can promote the achievement of SDGs through a variety of conduits. Firstly, all SDG-related tasks require financing, and this development resource, in many contexts, should come primarily from taxes.

Secondly, *how* taxation is designed can influence consumer and producer behaviors, similar to how several other regulatory mechanisms and expenditure policy designs can influence people’s behavior. Effectively designing tax policies to influence people’s behavior can positively impact achieving SDGs e.g., how much and what people consume, the use and management of non-renewable resources, and economic production in general can be influenced by what incentives the tax system provides.

2 a. Gadenne, Lucie. (2017) *Tax Me, but Spend Wisely? Sources of Public Finance and Government Accountability. American Economic Journal: Applied Economics. Vol. 9, No. 1 (January 2017), pp. 274-314*

b. Prichard, W. (2015). *Looking forward: broader messages, policy lessons and directions for future research. In: Taxation, responsiveness and accountability in Sub-Saharan Africa: The dynamics of tax bargaining.* Cambridge University Press

c. Weigel, Jonathan L. (2020). *The Participation Dividend of Taxation: How Citizens in Congo Engage More with the State When it Tries to Tax Them. The Quarterly Journal of Economics, Volume 135, Issue 4, November 2020, Pages 1849-1903.*

(Conversely, poorly designed tax policy can – intentionally or otherwise – incentivize poor behavior and negative externalities for health, society, the economy, and planet.)

Thirdly, taxation is understood as a social contract: how fair and just a tax system is perceived by citizens often determines their attitude towards tax compliance and their faith in government<sup>3</sup>. Disparities in income, education, and health will generally serve to erode trust in governments and weaken the social contract, undermining the legitimacy of the government and its systems of taxation. A well-designed and well-administered tax system<sup>4</sup>, by contrast, can correct disparities and promote equity, fairness and good governance. However, tax policy/administration alone cannot bring fairness. Many elements of fairness have to come from public expenditure.

Finally, taxation can provide an opportunity for people to rally around – e.g., in the interest of improving their lives and participating in the nation’s development goals.<sup>5</sup> Taxation has clear consequences for economic growth and poverty alleviation. It can provide the means for countries to generate resources which offer more freedom to make choices on the path towards ending poverty, to achieve equitable growth and successfully address environmental sustainability, biodiversity, health outcomes.

Since the SDGs are a universal call to action to end poverty, protect the planet, and create more equitable societies, taxation becomes the obvious mechanism which can be effective in funding and supporting the SDGs at the national and global levels. Reliable, fair, transparent and efficient tax systems with effective and capable tax administrations are essential for the functioning of inclusive societies.

## 1.2 SDG Taxation Framework

Tax policies and tax administration capacity are critical to the achievement of SDGs. However, to leverage them it is important to identify the gaps between current tax policies and administration and the potential tax policies and administration which can be utilized for fulfilling SDGs.

SDG Taxation Framework (STF) is a comprehensive diagnostic framework that can be used by national and sub-national governments to understand the linkage of their tax system with respect to the specific targets/indicators of relevant SDGs and find opportunities within the tax policies and tax administration to achieve the specific SDGs.

The STF provides criteria based on practices being followed by different countries for relevant SDG targets. The countries can self-evaluate themselves, in terms of their tax policy alignment with these criteria. The STF can be used comprehensively for all SDGs or selectively based on the country’s SDG priorities. The STF diagnostic framework can support governments in examining not only the magnitude of domestic tax collections but also in other SDG-related evaluation like the progressivity

3 Cobham, Alex.(2022) *Taxing for a New Social Contract*. Finance & Development. International Monetary Fund. March 2022

4 Ibid.

5 Although research has demonstrated that to the extent that people engage with their governments on tax-related issues, more often than not they are engaging on negative aspects, rather than positive aspects (e.g., van den Boogaard et al, 2022)

of the tax structure, effectiveness and efficiency of the tax administration, trust of the citizens in the tax system and its contribution to change behavior towards desirable outcomes for the SDGs. A workable balance between progressivity and effectiveness of the tax system to raise revenue is critical. Specifically, the diagnostic framework allows governments to take a closer look at the coherence of a country's tax system with respect to specific targets in any or all of the SDGs. The SDGs are organized as follows:



A holistic view of tax interventions is important for minimizing the negative impacts. For instance, what does tax on the informal sector (SDG 17) mean for livelihoods, poverty and microenterprises (SDGs 1 and 8); what does industrial and agricultural incentives (SDGs 8 and 2) mean for DRM (SDG 17) and competitiveness (SDG 9).

When making tradeoffs, countries will need to consider the following:

- How will implementation of one Goal affect achievement of another?
- Which Goals are the most critical for national priorities?
- Are there adverse impacts from the implementation of a particular SDG?

The STF is intended to be a menu of policy options, identifying when and where a specific tax instrument could potentially support achieving specific indicators and targets. It is possible that evaluation criteria for some indicators and targets under certain SDGs may require tradeoffs in policy choices. There can also be conflicts between different choices. For instance, providing tax rebates or other tax incentives to encourage behavioral changes to achieve certain SDGs may seem to reduce DRM effort, especially if the tax incentives are not well targeted. Likewise, reducing hunger may require incentivizing high yielding seeds and use of chemical fertilizer, while the latter may negatively affect the environment and, in rare cases, health. Therefore, it is critical for governments to conduct cost benefit analysis and incidence analysis to see whether each of the proposed tax incentives are well-targeted and meet the objectives for which they were put in place and whether the economic and social benefits outweigh the loss of revenue or tax expenditure. Ultimately, governments will need to take decisions on which policies to select, depending on their national priorities and policy choices to meet the SDGs.

The key features of the SDG Taxation Framework are explained in the next chapter.

DRAFT

## 2. Overview of the SDG Taxation Framework (STF)

---

The SDG Report 2023 highlights that, at the midpoint of the 2030 Agenda, all the SDGs are seriously off track. Despite significant efforts in some places, national governments in all continents have fallen short in integrating the SDGs into national policies and public investments.

*[Sachs, J.D., Lafortune, G., Fuller, G., Drumm, E. (2023). Implementing the SDG Stimulus. Sustainable Development Report 2023. Paris: SDSN, Dublin: Dublin University Press, 2023].*

### 2.1 Purpose of the STF

It is in the background of the SDG Report that the STF is intended to bring greater focus on the critical role of tax policy and revenue administration in achieving the SDGs by 2030. It provides an opportunity for countries to examine what additional measures can be taken to achieve the SDG targets. The STF is a benchmark of good practices being followed by different countries, and can, therefore, be used as an implicit guide for reforms. The self-evaluation provides a diagnostic of where the country stands with respect to using tax policies for SDGs vis-à-vis the opportunities drawn from the experiences in policy choices undertaken in other countries.

It is important to reiterate that tax measures are just one set of interventions that can help achieve the SDG targets. Other significant support will need to come from budget allocations, subsidies, grants, cash transfers, international assistance, and advocacy. The STF covers only the tax interventions that can significantly support achieving SDG targets, especially where challenges still exist.

The STF explains *how* tax policy and tax administrative reforms can be leveraged to achieve the specific SDG indicators and targets. The STF uses dimensions and sub-dimensions for each SDG target to inform stakeholders what further actions in tax reforms could be undertaken to support SDG achievement. The STF accomplishes this through a toolkit, which can be used comprehensively or selectively for different SDGs, for the assessment of tax regimes in countries, in terms of their alignment with, and effectiveness in, supporting the achievement of the country's SDG priorities.

The STF will be particularly useful in:

- Identifying the gaps in a country's efforts and success in leveraging taxation to achieve SDGs.
- Setting the reform priorities and implementation sequencing in areas where greater effort and assistance is needed to realign or leverage taxes to achieve the SDGs.
- Enabling a shared view of taxation and SDGs amongst all the stakeholders, including country authorities.



While the toolkit evaluates tax policy and administration in line with good practices being followed by different countries, it is important to keep in mind that all policy interventions must be designed in light of a country’s social, political, and economic context as well as the existing tax regime, and the challenges faced by countries at different income levels and economic structure. For instance, countries that are largely dependent on agriculture, or where informality is prevalent, face more serious problems in collecting taxes than others.

## 2.2 STF Implementation

The STF is implemented in three stages.



### 1. Self-Evaluation

For conducting STF, countries can choose specific, or all SDGs based on their priorities and economic, political and social context. SDGs that are higher priorities, or are lagging behind, for a particular country, can be taken up for self-evaluation first. After the initial phase, STF can be used comprehensively for all the SDGs. The UNDP team will coordinate on next steps and provide the STF toolkit to relevant authorities.

The STF toolkit can be used to measure the alignment with, and effectiveness of, tax interventions in supporting the achievement of the SDGs. For each SDG, the STF toolkit identifies relevant targets which can be supported by tax interventions. A detailed background of tax measures, good practices and case studies is provided for understanding the linkage of taxation for the specific SDG and its targets.

For each target, there is a Performance Measurement Criteria that allows governments to self-evaluate their existing tax system with those targets. For each target, the STF provides dimensions and sub-dimensions, along with four maturity levels to self-evaluate on.

Countries need to provide evidence for their self-evaluated level. UNDP officials will guide government authorities during this process through virtual and in-person missions. The results are collected and provided with detailed insights through draft Self-Evaluation Report (SER). After the country authorities’ feedback, the final version of SER is prepared.

## 2. Recommendations

The country authorities are provided with insights and recommendations to better align tax system with SDGs based on SER results.

## 3. Country Support Plan

Based on the national priorities, a country support plan for agreed areas is developed. Reforms are implemented through the support and collaboration of UNDP, government agencies and other development partners.

Periodic monitoring can be undertaken to measure progress with the tax reform agenda and anticipated outcomes (i.e., in relation to selective SDG targets). This can be done on a biannual basis or as needed.

### 2.3 Scope of STF evaluation – the Toolkit

STF is designed to be a self-evaluation diagnostic framework that can be used by country authorities who are monitoring their own progress in achieving the SDGs. It is a menu of policy mix which can be employed by national governments to evaluate the tax system’s alignment with the achievement of priority SDG targets, outlining wherever potential policy linkages exist between potential tax policy and administrative tools and specific targets/indicators of relevant SDGs. The use of recommendations and good practice in tax policy and administrative instruments to tackle specific objectives will vary depending on the economic, political and social context of a given country.

The process of self-evaluation is conducted through a STF toolkit which is an abridged version of this handbook and is in the form of practical guide for self-evaluation which will be supported by the UNDP team and other development partners. The purpose of this STF toolkit is to:

- Provide country authorities with a structured methodology to undertake an objective evaluation of where a country stands with respect to the alignment of tax policy and administration with the achievement of the SDGs.
- Ensure the quality of data and evidence used for self-evaluation to enable a high degree of consistency in the evaluation made by different teams and across different countries.
- Determine the areas where more assistance is needed for the alignment of tax policy and administration for the fulfilment of the SDGs

The STF does not provide any ranking of countries. The self-assessment is country specific. The aim is to use the STF scores to inform the government on what further policy reforms can be undertaken with respect to tax policy and administration, and what support may be needed, to undertake the tax reforms to achieve the SDGs, in areas where progress is lagging.

## 2.4 Architecture of the self-evaluation framework

From the perspective of alignment of taxation measures to SDGs, the most critical is SDG 17, since providing resources for the budget is an essential attribute of a sound public finance management and is vital for achieving SDGs. Therefore, for the architecture of the self-evaluation framework, SDG 17 (Global Partnership and DRM) will be the overarching theme (Figure 2). SDG 17 is critical because it supports all other SDGs. Revitalizing the global partnership and improving DRM provide the resources needed to finance all SDGs. DRM is impacted by both tax administration and tax policy outcomes. All other SDG targets are influenced mainly by tax policy interventions that are linked to the incentives or disincentives that purport to typically encourage behavioral changes relative to specific SDGs.

For each SDG, the STF focuses on only those targets and indicators that can possibly be achieved through tax interventions. Accordingly, out of a total of 169 SDG targets for the 17 SDGs, only 49 relevant targets are contemplated for use in the STF, since the others required mainly non-tax interventions such as budget grants, subsidies, international cooperation and advocacy. This maturity level is intended to explain the experiences of some countries that have successfully adapted tax and fiscal policies towards achieving the SDGs.

**Figure 2 Architecture of the self-evaluation framework**

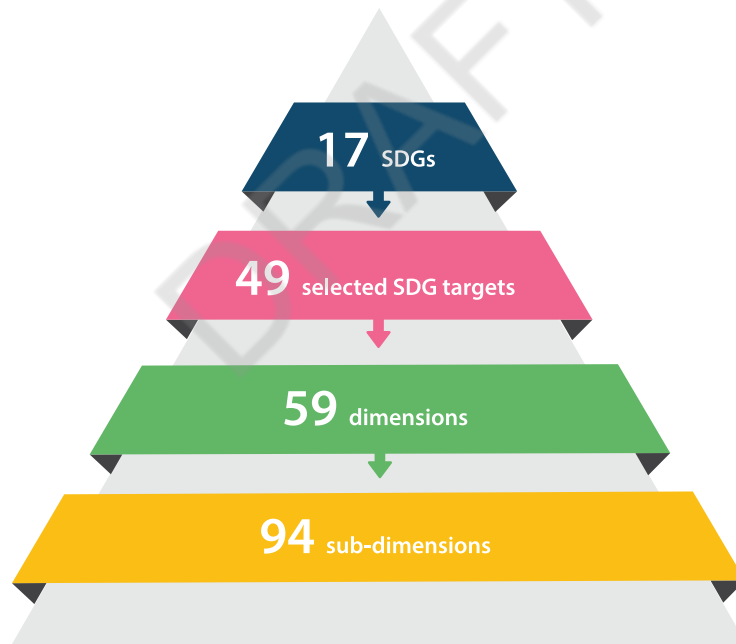


## 2.5 Hierarchy of the self-evaluation framework

As stated earlier, tax interventions are just one set of measures to help achieve the SDG targets. More significant support is needed through budget allocations, subsidies, grants, cash transfers, international assistance and advocacy. The STF covers only the tax interventions that can significantly support achieving SDG targets. However, careful attention will be needed to ensure that increasing levels of DRM are sustainable and do not risk further impoverishment of vulnerable groups.<sup>6</sup>

Within each SDG, the STF sets maturity levels for selected SDG targets which are then structured into dimension/sub-dimension, based on good international practices. As further elaborated in the subsequent paragraphs, for each of these selected 49 SDG targets, one or more measurement dimensions and sub-dimensions are used. Thus, for the 49 selected targets that are used for the STF, there are a total of 59 measurement dimensions which include within them 94 sub-dimensions. The following is the hierarchy of the measurement framework (Figure 3).

**Figure 3 Hierarchy of the assessment framework**



6 Beach and van den Boogaard, 2022; Higgins and Lustig, 2016

## 2.6 Scoring methodology

### **Overall structure.**

Each dimension or sub-dimension is evaluated using several criteria that determine these maturity levels, which are well-defined *evolutionary ladders* towards achieving specific SDG targets.

For each particular target/dimension/subdimension, the following scoring methodology is used:

- An 'A' score indicates that the country is at the top of the evolutionary ladder for that particular target and is following all the criteria of good international practice. Thus, it is well set to achieve the SDG target by using the tax interventions.
- A 'B' score indicates that, for the particular target/dimension/subdimension, the country is fulfilling the most important criteria and is close to using good international practice; with some additional effort, it is likely to achieve the SDG target.
- A 'C' score indicates that the country is utilizing just a few of the tax measures to achieve the particular SDG target and would need some important reforms of the tax laws and procedures to achieve the particular SDG target.
- Finally, a 'D' score indicates that the country has not met the basic requirements of a 'C' score and would need a good deal of reforms to move up the evolutionary ladder, including taking the tax measures that are needed to achieve the SDG target.

Each dimension and sub-dimension is measured against the aforesaid parameters set for the evolutionary ladder with criteria set for each level of the evolutionary ladder. In this manner, the STF demonstrates to the country authorities whether the tax measures they have taken are sufficient to achieve the SDG, and, if not, what further tax interventions need to be taken towards achieving the particular SDG targets.

It is important to emphasize that all SDGs are not equally relevant to all countries. For instance, for a land-locked country, Goal 14 on sustainable use of marine resources will be less relevant than for a small island state. Likewise, Goal 2 on ending hunger may be critical for a country facing food insecurity, but not for a country where food availability is adequate. Also, depending on level of maturity achieved with respect to different SDG, the significance of different SDG targets will vary.

Where, for a country, the SDG Dashboard indicates a green dot and a green arrow, showing that the country is on track for achieving a particular target/indicator, a self-evaluation may not be necessary for that particular indicator. However, where the SDG Dashboard indicates that challenges remain, the country would benefit from the tax intervention options to help achieve the particular SDG target.

## 2.7 Structure of performance evaluation for each SDG

Discussions in every SDG include the following:

- The desired outcome for each SDG target which can be supported by tax intervention targets.
- A background of the tax measures and description of what represents international good practice or the maturity level of tax policy alignment for those targets, based on literature review.
- A detailed framework of performance measurement which contains the following column structure;

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
--------	-----------	-----------	---------------	-------	----------

For each SDG indicator, the tracking from the SDG Dashboard will be presented in order for the authorities to acknowledge what has been achieved and how much additional effort is warranted for that indicator.

For the STF, the maturity levels for targets under SDG 17 are presented first.

All other SDGs are arranged in the numerical order of the of the SDGs, i.e., from SDG 1 to SDG 16.

As highlighted in Chapter 1, the SDGs should not be looked at in isolation but should be treated as “cogwheels” that are interdependent and interact with one another. The achievement of the SDGs will depend on providing synergies and trade-offs between different targets.



### 3. Goal 17: Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

**Goal 17 is an overarching Goal and its achievement affects the achievement of all other Goals**

#### 3.1 Target 17.1: Domestic Resource Mobilization

##### 3.1.1 Background and good practices

Primary changes to improve domestic resource mobilization (DRM) must take place at the national level, where major revenue and spending take place, however, national tax systems are often highly dependent on international agreements and normative frameworks. The development of the international tax system relies to a large extent on negotiations where representation of developing countries is weak. Ensuring that the international tax system can respond to the challenges and capacities of developing countries is essential to ensure that it contributes to reducing inequalities and contributes to the fulfilment of the SDGs.

There are three main reasons why strengthening DRM in developing countries is important. First, where possible, domestic taxes need to work towards filling the gap between ambitious SDGs and available development finance. Second, more taxation is typically associated with more social spending, and third, greater state reliance on taxation can potentially lead to a more responsive, accountable and capable statehood and citizenry.<sup>7</sup> Therefore, augmenting DRM is the primary focus of the ‘Tax for SDG’ initiative and Target 17.1 is the overarching target whose performance in countries will affect the performance of other SDG targets.

Both tax policy and tax administration are important for reinforcing DRM. In practice, tax policy and tax administration are intertwined. Policy changes are often triggered by improved administration, whereas ambitious policy reforms often stall or are undermined if the administration of taxes is weak. Hence, there are opportunities to improve the tax system through dual targeting of both. If the performance of the initiatives underlined under this target are improved, there is a strong likelihood of

<sup>7</sup> a. NORAD (2020). *Tax for Development, Portfolio Strategy 2020-2025*. Oslo March 2020.

b. Gadenne, L. (2017) ‘Tax Me, But Spend Wisely: The Political Economy of Taxes, Evidence from Brazilian Local Governments’, *American Economic Journal: Applied Economics* 9:1: 274–314

c. Prichard, W. (2015) *Taxation, Responsiveness, and Accountability in Sub-Saharan Africa: The Dynamics of Tax Bargaining*, Cambridge: Cambridge University Press

d. Moore, M. (2007) *How Does Taxation Affect the Quality of Governance?* IDS Working Paper Series, 280, Brighton: Institute of Development Studies.

e. Weigel, Jonathan L. (2020). *The Participation Dividend of Taxation: How Citizens in Congo Engage More with the State When it Tries to Tax Them*. *The Quarterly Journal of Economics*, Volume 135, Issue 4, November 2020, Pages 1849-1903.

increasing DRM. The magnitude of increase in DRM, however, would depend on many factors that are specific to a country's economic and fiscal structure.

Lastly, focusing on accountability and transparency are important pillars of good tax governance. Accountability and transparency are critical to ensuring that tax reform strategies and broader DRM efforts are politically sustainable – being at least minimally accepted by the wider population and responsive to the demands of the citizens, in general, and taxpayers, in particular. Because of the importance of good tax governance, this has been treated separately in SDG 16 on Justice and Governance.

### 3.1.2 Desired outcome

The desired outcome for the Goal 17 that can be supported through tax interventions is enunciated in Target 17.1 and the corresponding outcome indicators in 17.1.1 and 17.1.2.

**Target 17.1** *Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection*

The seven performance dimensions used to assess the DRM Target 17.1 are discussed below.

#### Building the social contract

The relationship of people's rights and duties within a jurisdiction is often at the center of the “social fiscal contract” between taxpayers and the State. This may not be the case in many countries where democratic institutions are weak.<sup>8</sup> The connection between tax and governance manifests itself in different ways. Moore (2008)<sup>9</sup> summarizes three: The first is continuous bargaining between citizens and the state, centering on the payment of tax and the delivery of public goods and services. The second is through the state's incentive to promote growth, given that public finances depend on DRM. Finally, tax collection effectiveness is critically impacted by the quality and governance of institutions and organizations. This illustrates the critical role that effective tax systems can have in promoting social contracts. Beyond revenue generation and the accountability mechanism, tax policies (if well applied) can mitigate adverse impacts of inequality. This requires that the tax system be attuned to address both vertical and horizontal inequities. This is discussed in detail in Goal 10.

#### Tax effort

In many developing countries there can be a significant tax gap, which means that the actual tax revenue collected is lower than what is legally owed (compliance gap) and what one would expect

8 Bak, A. K. F., 2019. “*When the fiscal social contract is not about tax: Understanding the limited role of taxation in social accountability in Senegal*”. [https://politica.dk/fileadmin/politica/Dokumenter/Afhandlinger/ane\\_karoline\\_bak.pdf](https://politica.dk/fileadmin/politica/Dokumenter/Afhandlinger/ane_karoline_bak.pdf)

9 Moore, M. (2008). *Between coercion and contract: competing narratives on taxation and governance. Taxation and state-building in developing countries.*



considering the country's economic output, degree of diversification of tax bases and stage of development (policy gap). It is well understood that the tax-to-GDP ratio in a country is determined by political choices as well as affected by a variety of economic and socio-cultural factors. Many advanced countries have tax-to-GDP ratios between 25 and 35 percent. A very high tax-to-GDP ratio, above 35 percent may not be a good policy in many developing countries because the tax base itself is often relatively small and poorly diversified, and very high taxes would tend to crowd out private initiatives for growth. At the same time, it is generally believed that ensuring basic public service provision for its citizens requires a tax-to-GDP ratio above 15 percent<sup>10</sup>, but many developing countries have tax levels far below that level.

### Monitoring tax expenditures

Monitoring tax expenditures provides the government and the people with knowledge of how much revenue is forgone as a result of tax reliefs such as exemptions, rebates, deductions, accelerated depreciations and other preferential tax regimes. Ideally, a sound monitoring of tax expenditures can be used to better evaluate the costs and benefits of specific tax expenditure provisions. The Global Tax Expenditures Database (GTED) provides information on tax expenditures from 218 countries worldwide. Whereas there are currently 103 reporting countries, the remaining 116 ones have never released any tax expenditure data.<sup>11</sup> The latest findings from the GTED suggest that in lower income countries, tax expenditures equate 2.8 percent of GDP or 27.1 percent of all tax revenues; compared to 2.6 percent of GDP or 18.2 percent of tax revenue for lower middle income countries; and 4.0 percent of GDP or 27.5 percent of tax revenue for upper middle income countries (UMIC, which includes many MENA region countries).<sup>12</sup> These revenue losses are enormous and, hence, rationalizing the use of tax expenditures present a real opportunity for mobilizing domestic resources. In some countries, such as Jordan and Djibouti, tax expenditures represent more than 70 and 87 percent of total tax revenue. In summary, tax expenditures represent one of the most significant sources of revenue loss apart from hidden activities in the informal economy, base erosion and profit shifting (BEPS) and aggressive international tax planning practices.

Besides reporting on the fiscal cost (revenue forgone) of tax expenditures, good practice recommendations for rationalizing the use of tax breaks include the evaluation of tax expenditure provisions. It is important for the government to periodically review if specific tax expenditures are effective in achieving the goals they pursue. Certainly, cost-benefit analysis is needed to identify poorly designed and targeted tax expenditures, which are prone to abuse, can lend themselves to overly complex and unwieldy tax systems, as well as lead to unintended outcomes.

A tax system is considered efficient if, for any given amount of revenue to be raised, it distorts behavior

<sup>10</sup> International Monetary Fund (2017). *Building Fiscal Capacity in Fragile States*.

<sup>11</sup> Redonda, A., von Haldenwang, C., and Aliu, F. (2022); Global Tax Expenditures Database [data set], Version 1.1.4, <https://doi.org/10.5281/zenodo.6334212>. [www.GTED.net](http://www.GTED.net).

<sup>12</sup> Aliu, F., Redonda, A., and C. von Haldenwang (2022). The Global Tax Expenditures Database (GTED) Progress Report. Deutsches Institut für Entwicklungspolitik GmbH: <https://doi.org/10.23661/r2.2022>

as little as possible. A base-broadening and rate-cutting reform should reduce distortions by reducing overall tax rates and removing ill-designed tax breaks. Whenever tax reliefs are given, tax rates have to be higher than otherwise; and in standard economic theory the deadweight loss from taxation goes up by the square of the tax rate.<sup>13</sup> There is thus a strong presumption (aside from cases where reliefs play a role in correcting externalities) that reforms that enable the broadening of tax bases and, at the same time, the reduction in tax rates will increase economic efficiency.

All this said, if well designed and properly administered, tax expenditures can be important policy tools for supporting the realization of the SDGs, by stimulating needed strategies and behavioral responses. Such incentives can justify the revenue forgone stemming from tax expenditures and, through the feedback loop of enhancing inclusive economic growth and improving socio-economic outcomes, they can free up fiscal space and support DRM.

### Strengthening the tax administration

Taxpayers expect that they receive value for tax money. Importantly, low quality in public service provision will often have a negative impact on tax morale. Here, we are focusing on the quality of services provided by the tax administration system itself. The higher the recurrent costs of administering the tax system and the costs of providing services and the less money that is left for redistribution from taxes raised,<sup>14,15</sup> If administrative inefficiencies are high, taxpayer compliance costs will increase and taxpayers will have lower tax morale and willingness to contribute to the financing of government services. An appropriately low level of recurrent cost is, therefore, a desirable objective. Ensuring that taxation is not expanded in ways that exacerbates these inefficiencies will be an important factor to consider.

Improving audit capacities in countries is critical to ensure that taxpayers – multinational firms (MNEs) who are likely to exploit base erosion and profits shifting (BEPS<sup>16</sup>) strategies in particular – file accurate declarations (discussed further below).

Tax administrations also need capital investments to upgrade their IT systems and improve information matching capacities. The widespread use of technology has helped improve the efficiency of many tax administrations in developing as well as developed countries.<sup>17</sup> Yet many tax administrations have wasteful recurring expenses not related to improved compliance effectiveness.

13 Auerbach, A.J. (2002), "Taxation and Corporate Financial Policy," in Auerbach, A.J. and M. Feldstein (eds.), *Handbook of Public Economics*, Vol. 3, Elsevier, North-Holland. Auerbach, A.J. (1985), "The Theory of Excess Burden and Optimal Taxation", in *Handbook of Public Economics*, Vol. 1, A.J. Auerbach and M. Feldstein (eds.), pp. 61-127, Amsterdam, Elsevier. Auerbach, A. J. and James R. Hines Jr. (2002), "Taxation and Economic Efficiency", *Handbook of Public Economics* Volume 3.

14 IMF (2016). *International Survey of Revenue Administration (ISORA) Volume 1. Recurring budget of the tax administration* (pp. 158-160). 2016.

15 Beach, Rachel and Venessa van den Boogard (2022). *Tax and Governance in the Context of Scarce Revenues: Inefficient Tax Collection and its Implications in Rural West Africa*. International Centre for Tax and Development. Feb 2022. /

16 See <https://www.oecd.org/tax/beps/>

17 Ibid. (pp.164-167). (2016); Beach and van den Boogard (2022). *Tax and Governance in the Context of Scarce Revenues: Inefficient Tax Collection and its Implications in Rural West Africa*. ICTD Working Paper 139.

### Tackling tax avoidance and evasion

Large corporations may have greater opportunities to get tax planning advice on reducing their tax liabilities. Reducing tax avoidance and evasion can help achieve greater equity in addition to enhancing efficiency in the tax system. Reducing tax avoidance and evasion also enhances compliant taxpayers' perception of the tax system as fair. Many areas with highest potential to increase tax collection in developing countries are under domestic control (e.g., income taxation, VAT, excise, property taxes), but international tax issues are also critically important (e.g., transfer pricing, profit shifting, tax avoidance, tax crime, etc.) Recovering tax liabilities due on MNEs' profits can often represent a greater source of potential revenue than other domestic reforms. BEPS practices cost countries an estimated USD 100-240 billion in lost revenue annually, which is equivalent to 4 to 10 percent of the global corporate income tax revenue. Developing countries' losses tend to represent a much greater share of GDP compared to losses of more advanced economies.<sup>18</sup> In addition to raising tax revenues and creating a level playing field, initiatives such as Tax Inspectors Without Borders (TIWB), the OECD/G20 BEPS project and ratification of the Automatic Exchange of Financial Account Information in Tax Matters signal governments' commitment to address tax avoidance and evasion.

The BEPS Initiative proposes a Two-Pillar Solution to ensure that MNEs pay their fair share of tax.

**Pillar One** applies to the biggest MNEs and re-allocates part of their profit to countries that where they sell their products or services. Taxing rights of > USD 125 billion are expected to be reallocated to market jurisdictions.

**Pillar Two** would subject large MNEs to a global minimum CIT rate of 15 percent. It is estimated to generate USD 150 billion in additional global revenue.

Many developing countries are concerned that the available reallocation of taxes is too low to generate significant resources to them.

### Strengthening taxation of extractive industries<sup>19</sup>

Revenues from the extractive industries (EI) have major macroeconomic implications for many developing countries. EIs often account for over half of government revenue in petroleum-rich countries, and for over 20 percent in mining countries. Dependence on EI revenues in resource-rich countries has increased, at least in the medium term. Revenue objectives loom large in designing fiscal regimes for the EIs but involve complex trade-offs. EI revenues are highly unstable and prone to large fluctuations. Consequently, EI-dependent countries often fail to design an effective policy mix to promote economic diversification, rendering themselves more vulnerable to economic/global shocks. This phenomenon, termed the "Dutch disease" tends to decrease the price competitiveness of exports of the affected country's manufactured goods and increases imports. Better designed and implemented fiscal

<sup>18</sup> Cobham, A. and Jansky, P. (2018). *Global Distribution of Revenue Loss from Corporate Tax Avoidance: Re-estimation and Country Results*. *Journal of International Development* 30, 206–232. DOI: 10.1002/jid.3348.

<sup>19</sup> The effect of dependence on fossil fuel on the environment is discussed in the section on SDG 7.

regimes for oil, gas, and mining can make a substantial contribution to the revenue needs of many developing countries while ensuring an attractive return for investors.

Generating employment in related activities, and addressing environmental impacts, can be significant concerns, but the revenue from the EIs is often the main benefit to the host country. Fiscal regimes for the EIs vary greatly, a wide range of instruments being used. IMF analysis suggest that governments commonly retain one-third or more in mining and around 65–85 percent in petroleum.<sup>20</sup> The analysis attempts to gauge how current regimes share rents between government and investor. Country circumstances require tailored solutions, but a regime combining a royalty and a tax targeted explicitly on rents, along with the standard CIT, ensures that some revenue arises from the start of production, and that the government's revenue rises as rents increase with higher commodity prices or lower costs.

While stability and credibility of the EI fiscal regime are important, these can be enhanced and allow for renegotiation when circumstances so require. Transparent rules and contracts tend to improve stability and credibility. Poorly designed international tax arrangements, however, can seriously undermine revenue potential. Effective administration is vital, but complex EI fiscal regimes and fragmented responsibilities are often major impediments.<sup>21</sup>

There is a growing recognition that international profit shifting by MNEs in the natural resource sector is a material threat to DRM, with revenue losses for developing countries estimated at \$US 1.4 billion and \$US 41.1 billion for emerging markets.<sup>22</sup> Without proactive and effective enforcement that sends a strong signal that transfer mispricing will be challenged, the mere presence of transfer pricing laws does not appear to deter profit shifting. There is a need for a concerted effort to close off many of the current profit shifting channels by strengthening and simplifying transfer pricing rules; limiting interest deductions; improving tax treaty practices; limiting tax incentives; and strengthening investment negotiation practices.

### 3.1.3 Performance measurement framework for Target 17.1

**The custodian agency** for indicator 17.1.1 is the **IMF** and the **partner agencies** are **OECD and World Bank**. This is a Tier I indicator.

**The custodian agency** for indicator 17.1.2 is the **IMF**. This is a Tier I indicator.

Table 17.1 sets out the criteria for scoring the dimensions and sub-dimensions of Target 17.1.

20 IMF (2012). *Fiscal Regimes for Extractive Industries: Design and Implementation*. Fiscal Affairs Department. IMF Policy Paper. August 2012

21 *ibid*

22 Sebastian Beer and Dan Devlin.(2021). *Is There Money on the Table? Evidence on the Magnitude of Profit Shifting in the Extractive Industries*. IMF Working Paper. January 2021

**Table 17.1. Performance Measurement Framework for Target 17.1**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 17.1</b> <i>Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection</i>	Indicators 17.1.1 Total government revenue as a proportion of GDP, by source  17.1.2 Proportion of domestic budget funded by domestic taxes	<b>G17-D1: Building the social contract</b>	<b>Sub-dimension 1:</b> Extent to which tax administration publishes its operational and financial performance.	A	Annual report of the full financial and operational performance of the tax administration is published on its website.  The annual report is published within six months of the end of the fiscal year
				B	Annual report of the full financial and operational performance of the tax administration is reported to the parliament.  The annual report is published within 12 months of the end of the fiscal year
				C	Annual report of either the financial or the operational performance of the tax administration is reported to the parliament.  Same as B (ii).
				D	No annual report of the financial or operational performance is published.
			<b>Sub-dimension 2:</b> Extent to which tax administration publishes its future plans.	A	Multi-year strategic plan of the tax administration is published on the website in advance of the period to which the plan relates.
				B	Multi-year strategic plan of the tax administration is published on the website within six months after the start of the period to which the plan relates.
				C	Short extract of the multi-year strategic plan is published on the website within nine months after the start of the period to which the plan relates.
				D	No strategic plan is published

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
			<b>Sub-dimension 3:</b> Monitoring of public perception of the tax administration and government's tax policy.	A	<p>The ministry of finance or tax administration commissions a survey of public perception of professionalism, level of service, and integrity in the tax administration based on a statistically valid sample.</p> <p>The survey is conducted by an independent reputed third party every two years and the results are published soon after.</p>
				B	<p>Same as A (i)</p> <p>Same as A (ii) except that the survey is conducted once every four years and results are published soon after</p>
				C	<p>Same as A (i)</p> <p>The results of the survey are not published</p>
				D	<p>No survey of public perception of the tax administration is conducted.</p>
		<b>G17-D2: Tax effort</b>	<b>Sub-dimension 1:</b> The value of tax to GDP ratio taken as an average of last 3 years.	A	<p>The ratio of total net tax revenue as a percent of GDP is 15 percent or more taken as an average of last 3 fiscal years.</p>
				B	<p>The ratio of total net tax revenue as a percent of GDP is at least 12 percent but less than 15 percent taken as an average of last 3 fiscal years.</p>
				C	<p>The ratio of total net tax revenue as a percent of GDP is at least 10 percent but less than 12 percent taken as an average of last 3 fiscal years.</p>
				D	<p>The ratio of total net tax revenue as a percent of GDP is less than 10 percent taken as an average of last 3 fiscal years.</p>

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
			<b>Sub-dimension 2:</b> Level of improvement in tax to GDP ratio over time.	A	The ratio of total net tax revenue to GDP has increased by 1.5 percent over the last three fiscal years.
				B	The ratio of total net tax revenue to GDP has increased by 1 percent over the last three fiscal years.
				C	The ratio of total net tax revenue to GDP has increased by 0.5 percent over the last three fiscal years.
				D	The ratio of total net tax revenue to GDP has either remained stagnant or has increased by less than 0.5 percent over the last three fiscal years.
			<b>Sub-dimension 3:</b> Distance to frontier: the degree to which the tax to GDP ratio approaches the global standard of 15 percent, expressed as a ratio of:  $\frac{(15 - t) \times 100}{15}$ where "t" is the country's tax to GDP ratio of the most recent fiscal year. "t" still counts as 15 if the tax to GDP ratio is higher than 15.	A	The distance to frontier is zero.
				B	The distance to frontier is greater than zero and up to 25 percent.
				C	The distance to frontier is greater than 25 percent and up to 50 percent.
				D	The distance to frontier is greater than 50.

Target	Indicator	Dimension	Sub-dimension	Score	Criteria	
		<b>G17-D3: Monitoring tax expenditures</b>	<b>Sub-dimension 1:</b> Governance of tax expenditures	A	<p>There is a legal requirement to annually report on tax expenditures (TEs) and to submit the report to the parliament.</p> <p>TE reporting is integrated into the fiscal policy through the Government Budget Proposals which present information at the individual TE provision level, including (i) the description of policy objectives (ideally, with references to the SDGs),</p>	
						<p>(ii) the costing (revenue forgone estimates) of TEs, and (iii) the intended beneficiaries.</p> <p>As per the institutional setup, only the parliament is involved in the approval of new TEs and the modification or elimination of existing TEs.</p> <p>There is a tax policy unit in the MoF/or equivalent ministry with adequate capacity that examines proposals for new tax expenditure based on cost-benefit analysis.</p>
						<p>B</p> <p>Same as A (i)</p> <p>TE reporting is integrated into the fiscal policy through the Government Budget Proposals which present information at the individual TE provision level, including (i) the description of policy objectives (ideally, with references to the SDGs), and (ii) the costing (revenue forgone estimates) of TEs</p> <p>As per the institutional setup, only the Ministry/ Department in charge of fiscal policy and/or the parliament are involved in the approval of new TEs and the modification or elimination of existing TEs.</p>



Target	Indicator	Dimension	Sub-dimension	Score	Criteria
				C	<p>There is a legal requirement to annually report on tax expenditures (TEs) but not to submit to the parliament.</p> <p>TE reporting is integrated into the fiscal policy through the Government Budget Proposals which present information at the individual TE provision level, including at least (i) the description of policy objectives (ideally, with references to the SDGs) or (ii) the costing (revenue forgone estimates) of TEs.</p>
					As per the institutional setup, only the Ministry/ Department in charge of fiscal policy is involved in the approval of new TEs and the modification or elimination of existing TEs.
				D	The criteria for score C are not met.
			<b>Sub-dimension 2:</b> Reporting of tax expenditure.	A	<p>The government publicly reports the level of tax expenditure for all national taxes on a yearly basis.</p> <p>The TE report provides revenue forgone estimates, at the individual TE provision level.</p> <p>The TE report identifies the policy goals (ideally, with references to the SDGs), at the individual TE provision level</p>
				B	<p>Same as A (i)</p> <p>The TE report provides revenue forgone estimates, not at the individual TE provision level but at the tax type level</p>
				C	Same as A (i)
				D	The criteria for score C is not met.

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
			<b>Sub-dimension 3:</b> Evaluation of tax expenditure.	A	<p>There is an ex-ante examination framework which discusses policy objectives (ideally wrt SDGs) and fiscal cost (revenue forgone).</p> <p>A periodic (every 3 to 5 years) cost-benefit analysis of the twenty largest TE (in terms of revenue forgone) is done to determine their benefits and whether they are fit for purpose (also with reference to the SDGs).</p> <p>All TEs negatively evaluated in the last 7 years, except those evaluated in the last 2 years, have been amended or abrogated.</p>
				B	<p>A periodic (every 3 to 5 years) cost-benefit analysis of the 10 largest TEs (in terms of revenue forgone) is done to determine their benefits and whether they are fit for purpose (also with reference to SDGs).</p> <p>At least 60% of TEs negatively evaluated in the last 7 years, except those evaluated in the last 2 years, have been amended or abrogated</p>
				C	<p>A periodic (every 3 to 5 years) cost-benefit analysis of the 5 largest TEs (in terms of revenue forgone) is done to determine their benefits and whether they are fit for purpose (also with reference to SDGs).</p> <p>At least 40% TEs negatively evaluated in the last 7 years, except those evaluated in the last 2 years, have been amended or abrogated</p>
				D	The criteria for score C are not met

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
		<b>G17-D4: Strengthening tax administration efficiency harnessing use of digital technology</b>	<b>Sub-dimension 1:</b> Average recurrent cost of collection of national revenue agencies.	A	Recurring budget of the tax administration as a ratio of total revenue collected by it is 0.5 percent or lower.
	B			Recurring budget of the tax administration as a ratio of total revenue collected by it is higher than 0.5 percent but less than 1.0 percent.	
	C			Recurring budget of the tax administration as a ratio of total revenue collected by it is higher than 1.0 percent but less than 2.0 percent.	
	D			Recurring budget of the tax administration as a ratio of total revenue collected by it is higher than 2.0 percent.	
			<b>Sub-dimension 2:</b> Level of automation of the taxpayer registration database.	A	The taxpayer registration database is centralized and digitalized, contains all relevant details of taxpayers and interfaces with the filing and payment processing sub-systems.  The database generates tax declarations and provides secure user access to taxpayers through taxpayer portal.  The accuracy of the database is assured for identifying and removing inactive taxpayers using automated cross-checking of information with other government agencies.
	B			Same as A (i) and either of A (ii) or A (iii).	
	C			Same as A (i).	
	D			The criterion for a C score is not met	

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
			<b>Sub-dimension 3:</b> Extent of to which tax declarations are filed electronically.	A	100 percent of declarations for VAT, CIT and PIT are filed electronically.
				B	75 percent of declarations for VAT, CIT and PIT are filed electronically.
				C	50 percent of declarations for VAT, CIT and PIT are filed electronically.
				D	Tax declarations are either not filed electronically or are filed electronically in less than 50 percent of total declarations filed.
			<b>Sub-dimension 4:</b> Extent to which national taxes are paid electronically.	A	100 percent of VAT, CIT and PIT are paid electronically.
				B	Between 75 percent and 100 percent of VAT, CIT and PIT are paid electronically.
				C	Between 50 percent and 75 percent of VAT, CIT and PIT are paid electronically.
				D	VAT, CIT and PIT are paid electronically in less than 50 percent of total number of payments.
			<b>Sub-dimension 5:</b> Extent to which refunds are paid electronically.	A	100 percent of VAT, CIT and PIT refunds are paid electronically.
				B	Between 75 percent and 100 percent of VAT, CIT and PIT refunds are paid electronically.
				C	Between 50 percent and 75 percent of VAT, CIT and PIT refunds are paid electronically.
				D	VAT, CIT and PIT refunds are paid electronically in less than 50 percent of total number of payments.

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
			<b>Sub-dimension 6:</b> Extent of use of automated or spontaneous cross-checking of third-party information on taxpayers.	A	Automated cross-checking of third-party information is routinely used from the following sources: <ul style="list-style-type: none"> <li>• Employers for salary data</li> <li>• Banks and other financial institutions for interest payments</li> <li>• Real estate registry</li> <li>• Motor vehicle registry</li> <li>• Customs</li> <li>• Government procurement agencies</li> <li>• Social security agency</li> <li>• Shareholder registry</li> </ul>
				B	Spontaneous cross-checking of third-party information is routinely used from the any five of the sources mentioned in A (i) to A (viii)
				C	Spontaneous cross-checking of third-party information is used from any three of the sources mentioned in A (i) to A (viii), but cross-checking is ad hoc
				D	Third party information is not received automatically and there is no cross-checking of third-party information.
			<b>Sub-dimension 7:</b> Extent of use of fiscalization and electronic invoice matching for VAT payers.	A	VAT/sales invoices are transmitted electronically from the point of sale (POS) to the tax administration.  The tax administration system automatically cross-checks VAT/sales invoices on a routine basis with data submitted in the return to check discrepancies.  Electronic cash register at POS displays transactions to the retail customer.
				B	Same as A (i) and A (ii) but not A (iii)

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
				C	Same as A (i) Same as A (ii) except that cross-checking of VAT/sales invoices is not automatic.
				D	There is no electronic transmission of VAT/sales invoices
		<b>G17-D5: Tackling tax avoidance and tax evasion</b>	<b>Sub-dimension 1:</b> Monitoring and analysis of tax gap.	A	Tax gap analysis is conducted using a standard methodology for VAT and one other main tax and by industry sector.  The analysis is conducted once every two years.  The results of the analysis are published.
				B	Tax gap analysis is conducted using a standard methodology for VAT and one other main tax, but not by industry sector.  The analysis is conducted once every four years.  The results of the analysis are published.
				C	Tax gap analysis is conducted using a standard methodology for VAT only.  The analysis is conducted once every six years.  The results of the analysis are not published.
				D	No tax gap analysis is conducted.
				<b>Sub-dimension 2:</b> Use of standard risk management techniques for identifying, evaluating, prioritizing, and mitigating compliance risks.	A

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
				B	<p>The tax administration uses a standard risk management process to identify, evaluate, prioritize and mitigate compliance risk covering the main taxes, all four taxpayer obligations but only the large taxpayer segment.</p> <p>The risk management process is undertaken centrally, with inputs from the regions, and is part of an annual compliance plan, not a multi-year strategy.</p>
				C	<p>Same as B (i)</p> <p>The risk management process is undertaken both centrally and regionally and is part of an annual compliance plan</p>
				D	<p>The structure management process is weak and lacks a coherent approach.</p>
			<p><b>Sub-dimension 3:</b> Scope of tax audit programs and criminal tax investigation.</p>	A	<p>The audit program has the following features:</p> <ul style="list-style-type: none"> <li>• Audit cases are selected centrally based on assessed compliance risk.</li> <li>• Uses a range of audit types including comprehensive audit, single issue audit and desk audits,</li> <li>• Covers the main taxes, key taxpayer segments and high-risk sectors.</li> <li>• Uses computer-assisted audit tools that automates the extraction, analysis and cross-checking of large volumes of data, especially in criminal investigation of tax fraud.</li> </ul>
				B	<p>Same as A (i), A (ii) and A (iii)</p>

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
				C	Same as A (i) and A(ii) Same as A (iii) except that it covers the main taxes and is focused mainly on the large taxpayer segment.
				D	Audit cases are selected regionally and not centrally.
			<b>Sub-dimension 4:</b> Scope of use of measures to counter transfer pricing and profit shifting	A	The tax administration has a specialized large taxpayer office (LTO) that deals with large corporations with complex international financial transactions.  A critical number of auditors in the LTO are trained in transfer pricing issues and use it routinely while conducting audit.  Advance pricing agreements and advance rulings are used for qualifying taxpayers.
					The tax administration is part of Inclusive framework on BEPS and has implemented the 4 minimum standards.  The tax administration makes use of instruments of mutual assistance such as but not limited to automatic exchange of information, spontaneous exchange of information and exchange of information on request.
				B	Same as A (i), A (ii) and A (iii).  (iv) The tax administration is part of Inclusive framework on BEPS but has not yet implemented the 4 minimum standards.
				C	Same as A (i) and A (ii).



Target	Indicator	Dimension	Sub-dimension	Score	Criteria		
				D	The tax administration does not have a specialized large taxpayer office to deal with large corporations with complex international financial transactions.		
		<b>G17-D6: Strengthening taxation of extractive industries</b>	<b>Sub-dimension 1:</b> Scope of fiscal measures to enhance revenue from extractive industries	A	<p>The government's total fiscal take is clearly stated and applied equally, comprising typical fiscal instruments such as production based royalties/ product share, taxes targeted explicitly on rents, and the standard CIT.</p> <p>Any 4 of the 5 below</p> <p>If a production sharing contract (PSC) structure is utilized, whether the model PSC is public, and measures, if any, to publish suitably anonymized data about production shares achieved.</p> <p>Transfer pricing rules are unambiguous.</p>		
							<p>Transfer pricing rules are applied in the extractive sector.</p> <p>The fiscal regime for EI limits tax incentives and the deduction of interest at project or entity level.</p> <p>The fiscal take regime lists potential consequences of the interaction between the various instruments as well as with the general tax regime.</p> <p>The capital gains tax regime has a rule set for indirect transfers of assets in the extractive sector.</p>
						B	Same as criteria (i), and any 3 out of the remaining 5 for 'A' score.
						C	Same as criteria (i) and any 2 out of the remaining 5 for 'A' score.
						D	The requirements for a 'C' score are not met.

## 3.2 Targets on Global Partnerships

### 3.2.1 Background and good practices

Although the primary changes to improve domestic resource mobilization must take place at the national level, where major revenue and spending take place, national tax systems are often highly dependent on international agreements and normative frameworks. The development of the international tax system relies to a large extent on negotiations where representation of developing countries is weak. Ensuring that the international tax system can respond to the challenges and capacities of developing countries is essential to ensure that it contributes to reducing inequalities and contributes to the fulfilment of the SDGs.

Both tax policy and tax administration are important for reinforcing DRM. In practice, tax policy and tax administration are intertwined. Policy changes are often triggered by improved administration, whereas ambitious policy reforms often stall or are undermined if the administration of taxes is weak. Hence, there are opportunities to improve the tax system through dual targeting of both. If the performance of the initiatives underlined under this cluster are improved, there is a strong likelihood of increasing DRM. The magnitude of increase in DRM, however, would depend on many factors that are specific to a country's economic and fiscal structure.

Lastly, focusing on accountability and transparency are important pillars of good tax governance. Accountability and transparency are critical to ensuring that tax reform strategies and broader DRM efforts are politically sustainable – being at least minimally accepted by the wider population and responsive to the demands of the citizens, in general, and taxpayers, in particular. Because of the importance of good tax governance, this has been treated separately in SDG 16 on Justice and Governance.

### 3.2.2 Desired outcome

The desired outcome for the Goal 17, other than DRM, that can be supported through tax interventions is enunciated in Targets 17.3, 17.7, 17.9 and 17.16, and the corresponding outcome indicators in 17.3.1, 17.7.1, 17.9.1 and 17.16.1.

**Target 17.3** *Mobilize additional financial resources for developing countries from multiple sources*

**Target 17.7** *Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favorable terms, including on concessional and preferential terms, as mutually agreed*

**Target 17.9** *Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the Sustainable Development Goals, including through North-South, South-South and triangular cooperation*

**Target 17.16** *Enhance the Global Partnership for Sustainable Development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the Sustainable Development Goals in all countries, in particular developing countries*

### **International tax collaboration to increase domestic revenue mobilization**

International tax is both an issue for national tax systems and for international tax collaboration. Successful taxation of multinational firms (both domestic and foreign owned) is important to most developing countries since these countries often have relatively small formal economies. It is not uncommon to see shares of tax payments from these companies dominate among the large taxpayers. Payments from large taxpayers can often constitute more than 50 percent of all domestic taxes.<sup>23</sup>

At the international level it is mainly through the OECD and the UN agencies such as the IMF, World Bank, UNDESA and UNDP that normative adjustments and guidance are made and that policy debates are held. The tendency, however, is that developed countries dominate in these fora both because of their full memberships and representation, but even more due to their resources and capacity to influence the focus, content and outcomes of the debates. Increasing the voices of developing countries, representation, and capacity in these forums is key to balance the interests and to influence the normative basis for taxing cross border transactions. This is important considering the growth of the global economy and the high share of flows and assets that pass-through secrecy jurisdictions with low or no regular income tax. It is also important because developing countries are relatively more exposed and lose a higher share of their potential income tax revenue through an erosion of the tax base from tax avoidance and/or tax evasion.<sup>24</sup>

The UN expert group, Committee for Development Policy, a subsidiary advisory body of ECOSOC, describes in their report how revising international tax cooperation and building capacity of national revenue authorities, including the legal and policy frameworks, are critical to the agenda of “Leave no one behind”.<sup>25</sup> If the pledge to leave no one behind is to be made effective, global rules need to promote a fair distribution of income and development opportunities at the international level. Countries must have the ability to build sound and efficient tax systems and the policy space to define and implement their own social and economic policies in accordance with social preferences and the priorities of their populations.

### **UN Tax Committee of Experts (UNTCE) in International Taxation**

The Committee comprises 25 members nominated by Governments and acting in their expert capacity. The members are drawn from the fields of tax policy and tax administration and are selected to reflect an adequate equitable geographical distribution, representing different tax systems. As called for in the Addis Ababa Action Agenda, the Committee meets biannually. The subcommittees of the UNTCE

23 Lundstøl ICTD 2018 <https://www.ictd.ac/publication/tax-in-development-towards-a-strategic-aid-approach>

24 Ibid.

25 ECOSOC 2018 (E/2018/33)

have been instrumental in taking forward the Committee's work on revision of the *Manual for the Negotiation of Bilateral Tax Treaties between Developed and Developing Countries* and on drafting of the *UN Transfer Pricing Manual for Developing Countries*, as well as in implementing other aspects of the Committee's mandate such as in the areas of new and emerging issues affecting international cooperation in tax matters and capacity building.

### **Tax Inspectors Without Borders**

In this context, the joint UNDP- OECD Tax Inspectors Without Borders (TIWB) is a significant effort in bridging the knowledge gap in critical areas of tax audit of high-risk cases and tax issues emanating from international transactions, particularly transfer pricing issues. TIWB programs provide tax administrations in developing countries with much needed assistance in building capacity to implement BEPS solutions and contribute to the DRM efforts of developing countries. On average, for every one US dollar spent on TIWB activities between 2015-2022, there was a more than 127 US dollar increase in tax revenues collected by host administrations.

### **The Platform for Collaboration on Tax**

The Platform for Collaboration on Tax (PCT)— a joint effort by the IMF, OECD, UN and the World Bank Group to facilitate and intensify co-operation between the four international organizations on international tax matters is producing a number of toolkits, such as the Tax Administration Diagnostic Assessment Tool (TADAT), to help low-capacity countries to implement reforms countering base erosion and profit shifting issues of particular concern to developing countries. These toolkits aim to provide capacity-constrained countries with practical, user-friendly guidance in implementing the international tax norms. In addition, technical assistance in critical areas of tax policy and tax administration is helping developing countries enhance their capacity for strengthening DRM.

### **Inclusive Framework on BEPS and the Global Forum – from Kyoto to Addis**

In June 2016, at the request of the G20, the OECD/G20 Inclusive Framework on BEPS (Inclusive Framework) was established in Kyoto, Japan with an initial membership of 89 countries and jurisdictions. The Inclusive Framework now includes 140 members, who, on an equal footing, monitor the implementation and contribute to the development of measures to combat Base Erosion and Profit Shifting (BEPS). With this approach, the Inclusive Framework successfully responds to the Addis Ababa Action Agenda on Financing for Development commitment to 'scale up international tax cooperation' and underlines the importance of inclusive cooperation and dialogue among national tax authorities on international tax matters. However, a criticism often directed to this group is that Inclusive Framework member countries have had little to no involvement with the setting of the rules as they are.

The Inclusive Framework and the Global Forum on Transparency and Exchange of Information for Tax Purposes (Global Forum) aim to bring about the end of bank secrecy. These developments have

taken place in a rapidly evolving international tax environment, which has become truly global, with previously unimaginable levels of tax co-operation and co-ordination both between the members of the Inclusive Framework and Global Forum, and among the wider range of international organizations, regional tax organizations, multilateral development banks, and other partners. The recent agreement on solutions to tackle the tax challenges arising from the digitalization of the economy and introduce a global minimum tax is a further step change. Developing countries have had a significant impact on the negotiation of these new rules which, over time, will directly support their domestic resource mobilization (DRM) needs in the recovery phase of the pandemic.<sup>26</sup>

### **The Inclusive Forum on Carbon Mitigation Approaches (IFCMA)**

The IFCMA is a recently created initiative launched on 8 February 2023, designed to help improve the global impact of emissions reduction efforts around the world through better data and information sharing, evidence-based mutual learning and inclusive multilateral dialogue. Its aim is to take stock of and consider the effectiveness of different carbon mitigation approaches, by sharing best practices and monitoring country-led initiatives.<sup>27</sup>

### **The BEPS Project**

Developed in the context of the OECD/G20 BEPS Project, the 15 actions set out equip governments with domestic and international rules and instruments to address tax avoidance, ensuring that profits are taxed where economic activities generating the profits are performed and where value is created. Addressing the tax challenges raised by digitalization is currently the top priority for the OECD/G20 Inclusive Framework and has been a key area of focus of the BEPS Project since its inception. This work has delivered several important outputs covering both direct and indirect tax issues. Recent, rapid and expansive digital transformation has had deep economic and societal impacts resulting in significant changes. This has sparked global debates in many legal and regulatory realms and international tax is no different. The tax implications are wide-ranging affecting both direct and indirect taxation, broader tax policy issues, and tax administration.

At the center of the debate is whether international income tax rules, developed in a “brick-and-mortar” economic environment more than a century ago, remain fit for purpose in the modern global economy. The fundamental elements of the global tax system which determined where taxes should be paid (“nexus” rules based on physical presence) and what portion of profits should be taxed (“profit allocation” rules based on the arm’s length principle), have been reconsidered in light of new allocation rules for the taxation of services, the digital economy and cryptocurrency. The consensus seems to be moving towards a system where a greater proportion of profits are allocated through fractional apportionment.

26 OECD (2021). *Developing Countries and the OECD/G20 Inclusive Framework on BEPS*. OECD Report for the G20 Finance Ministers and Central Bank Governors. October 2021, Italy

27 <https://www.oecd.org/climate-change/inclusive-forum-on-carbon-mitigation-approaches/>

### International research network

Research and higher education institutions, and individual researchers, can contribute to national tax systems by working directly with government agencies to co-develop applied research, models and data systems, and tailored policy analysis and advice. Further, they can create ‘public good’ research, data and models, such as the Global Tax Expenditure Database, that are used by government agencies, civil society organizations and other actors to improve the national tax system or disseminated to the general public to inform their views.

#### 3.2.3 Performance measurement framework for Targets 17.3, 17.7, 17.9 and 17.16

**The custodian agencies** for indicator 17.3.1 are the **OECD and UNCTAD**. This is a Tier I/II indicator depending on the source.

**The custodian agency** for indicator 17.7.1 is the **UNEP** and the **partner agency is OECD**. This is a Tier I indicator.

**The custodian agency** for indicator 17.9.1 is the **OECD**. This is a Tier I indicator.

**The custodian agencies** for indicator 17.16.1 are the **OECD and UNDP** and the **partner agency is UNEP**. This is a Tier II indicator.

Table 17.2 sets out the criteria for scoring the dimensions and sub-dimensions of Targets 17.3, 17.7, 17.9 and 17.16.

**Table 17.2. Performance Measurement Framework for Targets 17.3, 17.7, 17.9 and 17.16**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<p><b>Target 17.3:</b> Mobilize additional financial resources for developing countries from multiple sources.</p> <p><b>Target 17.7:</b> Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favorable terms, including on concessional and preferential terms, as mutually agreed.</p> <p><b>Target 17.9:</b> Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the Sustainable Development Goals, including through North-South, South-South and triangular cooperation.</p> <p><b>Target 17.16:</b> Enhance the Global Partnership for Sustainable Development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the Sustainable Development Goals in all countries, in particular developing countries.</p>	<p>Indicator 17.3.1 Foreign direct investment, official development assistance and South-South cooperation as a proportion of GNI.</p> <p>Indicator 17.7.1 Total amount of funding for developing countries to promote the development, transfer, dissemination and diffusion of environmentally sound technologies.</p> <p>Indicator 17.9.1 Dollar value of financial and technical assistance (including through North-South, South-South and triangular cooperation) committed to developing countries.</p> <p>Indicator 17.16.1 Number of countries reporting progress in multi-stakeholder development effectiveness monitoring frameworks that support the achievement of the sustainable development goals.</p>	<p><b>G17-D7: Level of cooperation with international institutions on domestic resource mobilization</b></p>	<p><b>Sub-dimension 1:</b> The extent to which the country avails of international collaboration to improve its domestic resource mobilization effort.</p>	<p>A</p>	<p>(i) The country avails itself of technical assistance and capacity building in tax policy and tax administration from international development partners.</p> <p>(ii) The country participates in the Global Forum on Transparency and Exchange of Information for Tax Purposes.</p> <p>(iii) The country avails itself of assistance in tax audit and other areas of support provided by the Tax Inspectors Without Borders where needed.</p> <p>(iv) The tax administration has undergone a formal diagnostic assessment using the TADAT methodology.</p> <p>(v) The tax administration and the ministry of finance routinely utilize for its own capacity enhancement research work on tax issues done by international institutions and academic institutions.</p> <p>(vi) The country takes active participation in the work being conducted by the UN Tax Committee of Experts.</p>
				B	The country participates in, or avails of any four of criteria (i) to (vi) of 'A' score.
				C	The country participates in, or avails of any two of criteria (i) to (vi) of 'A' score.
				D	The requirements for a 'C' score are not met.



## 4. Goal 1: End Poverty in all its forms everywhere

**Goal 1 has close synergies with Goal 2 (Hunger) and Goal 10 (Reducing Inequality) and should be examined together**

### 4.1 Background and good practices

Poverty is closely linked to inequality. Societies that have large income and wealth inequalities witness the concentration of nation's resources in the hands of a few, leaving millions of households in poverty. It is generally recognized by economists that inequality of pre-tax, pre-transfer, market incomes is the largest poverty enhancing factor. This means that making real progress on pushing the poverty rate down would be helped enormously by checking or even reversing the growth in market income inequality.<sup>28</sup>

Reducing poverty and inequality are central to United Nations' SDGs. For those living in extreme poverty, social protection and livelihood programs are best practice instruments of fiscal choice for removing poverty and inequality. Nonetheless, the design of a tax system that aims to reduce inequality is an important element in the effort to reduce poverty.

While income transfers, social protection, cash transfers and other forms of subsidies from the budget are instruments of fiscal policy choice for removing poverty and inequality, well-designed and properly implemented tax policies can substantially contribute to reducing inequalities.<sup>29</sup> The impact of tax policies can go far beyond just enhancing DRM, which in turn can support income transfers. The design of a tax system depends on what the composition of the tax structure is. Does the country have a wealth tax, how progressive are taxes on labor incomes, what is the progressivity of social security taxes? Are there presumptive taxes and how are those structured? Dealing with these issues will help confront the twin issues of poverty and inequality. Addressing inequality is discussed in the chapter on Goal 10 but has relevance for this chapter too.

International assistance must be consistent and focus on supporting countries' capacity to enact and finance their own development strategies. Countries must be provided with the capacity to design sound and effective tax systems, to define and implement their own poverty reduction strategies in accordance with social preferences and the priorities of their populations. A special plan is needed

28 [Elise Gould](https://www.epi.org/blog/inequality-main-persistent-poverty/#:~:text=In%20the%20roughly%20three%20decades,the%20largest%20poverty%2Dincreasing%20factor) (2014). *Inequality Is the Main Cause of Persistent Poverty*. Economic Policy Institute, Washington DC. 2014. <https://www.epi.org/blog/inequality-main-persistent-poverty/#:~:text=In%20the%20roughly%20three%20decades,the%20largest%20poverty%2Dincreasing%20factor>

29 ECOSOC (2019). ECOSOC- special meeting on International Cooperation in Tax Matters \_Summary.pdf. April 2019. New York. [https://www.un.org/esa/ffd/wp-content/uploads/2019/11/2019-ECOSOC-Tax-meeting\\_Summary.pdf](https://www.un.org/esa/ffd/wp-content/uploads/2019/11/2019-ECOSOC-Tax-meeting_Summary.pdf)



for fragile states when it comes to DRM, since these are the states where extreme poverty is most widespread and it is unlikely that DRM will be sufficient to finance development priorities, perhaps even in the medium-term fiscal outlook. Accordingly, global rules need to promote a fair distribution of income and development opportunities at the international level.

## 4.2 Desired outcome

The desired outcomes for Goal 1 that can be supported by tax interventions are enunciated in Targets 1.1, 1.2 and 1.3 and the corresponding outcome indicators in 1.1.1, 1.2.1 and 1.3.1.

**Target 1.1** *By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day.*

**Target 1.2** *By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its components according to national definitions.*

**Target 1.3** *Implement nationally appropriate social protection systems and measures for all*

### Monitoring poverty<sup>30</sup>

To monitor progress against the SDGs on removing poverty, national statistical systems, household surveys and poverty measurement methodologies are at the heart of tracking these global goals. The national poverty lines not only vary widely by country: richer countries typically have higher poverty lines than poorer ones. Governments track how many people are living on less than the national poverty line so that they can monitor their development progress. The national poverty line is also a central indicator for SDG 1, ending poverty “in all its forms.”

To aggregate and compare poverty rates across countries, poverty thresholds that reflect the same real standard of living in each country are used. The international poverty line, updated in September 2020 by the World Bank<sup>31</sup>, from \$1.90-a-day to \$2.15 a day, reflects the value of national poverty lines in some of the poorest countries, is often referred to as the “extreme poverty line”.

For added perspective, since 2017 the World Bank has also been tracking poverty at \$3.20 a day, the typical line for lower-middle-income countries, and \$5.50 a day, typical for upper-middle-income countries. Poverty measured at the international poverty line (currently \$2.15 per day) is used to track progress toward meeting the ambitious SDG target 1.1: to achieve zero poverty at the same international poverty line.

30 World Bank (2020). World Development Indicators. Themes – Poverty and Inequality. <https://datatopics.worldbank.org/world-development-indicators/themes/poverty-and-inequality.html>

31 <https://www.worldbank.org/en/news/factsheet/2022/05/02/fact-sheet-an-adjustment-to-global-poverty-lines>

### 4.3 Performance measurement framework for Target 1.1

The custodian agency for Indicator 1.1.1 is the **World Bank** and the partner agency is **UNICEF**. This is a Tier I indicator and the data for the criteria used in STF can be accessed through the World Bank databank on World Development Indicators.<sup>32</sup>

Table 1.1 sets out the criteria for scoring the dimension and sub-dimension of Target 1.1.

**Table 1.1 Performance Measurement Framework for Target 1.1**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 1.1</b> <i>By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day</i>	Indicator 1.1.1: Proportion of the population living below the international poverty line by sex, age, employment status and geographic location (urban/rural)	<b>G1-D1: Monitoring reduction in poverty level</b>	<b>Sub-dimension 1:</b> Extent of poverty reduction over time based on international poverty line	A	Population below the international poverty line (currently \$2.15 per day) has reduced by 30 percent in the last 5 years.
				B	Population below the international poverty line (currently \$2.15 per day) has reduced by 20 percent in the last 5 years.
				C	Population below the international poverty line (currently \$2.15 per day) has reduced by 15 percent in the last 5 years.
				D	Population below the international poverty line (currently \$2.15 per day) has reduced by less than 10 percent in the last 5 years.

### 4.4 Performance measurement framework for Target 1.2

The custodian agency for Indicator 1.2.1 is the **World Bank** and the partner agency is **UNICEF**. This is a Tier I indicator and the data for the criteria used in STF can be accessed through the World Bank databank on World Development Indicators.<sup>33</sup>

Table 1.2 sets out the criteria for scoring the dimension and sub-dimension of Target 1.2.

<sup>32</sup> <https://databank.worldbank.org/reports.aspx?source=2&series=SI.POV.DDAY&country=WLD> OR <https://data.worldbank.org/indicator/SI.POV.DDAY>.

<sup>33</sup> <https://databank.worldbank.org/reports.aspx?source=2&series=SI.POV.DDAY&country=WLD> OR <https://data.worldbank.org/indicator/SI.POV.DDAY>.

**Table 1.2. Performance Measurement Framework for Target 1.2**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 1.2</b> <i>By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its components according to national definitions</i>	Indicator 1.2.1: Proportion of population living below the national poverty line, by sex and age	<b>G1-D2: Monitoring reduction in poverty level</b>	<b>Sub-dimension 1:</b> Extent of poverty reduction over time based on national poverty line	A	Population below the national poverty line has reduced by 30 percent in the last 5 years.
				B	Population below the national poverty line has reduced by 20 percent in the last 5 years.
				C	Population below the national poverty line has reduced by 10 percent in the last 5 years.
				D	Population below the national poverty line has reduced by less than 10 percent in the last 5 years.

### Sustainability of the social security base

For those living in extreme poverty, social protection and livelihood programs are best practice instruments of fiscal choice for removing poverty and inequality. From the revenue perspective, though, the increasing costs and coverage of social security systems have resulted in high employer and employee SSCs in many countries, which reduce incentives to work and hire employees, particularly for low-income, low-skilled, young and old workers. Countries, therefore, face the challenge of securing funding for their social security systems while preventing large distortions in labor (and other) markets. The social security pension is, however, not an issue in many low income countries where it is not well established.

When the link between contributions made and benefits received is often not strong (e.g., unemployment benefits, child benefits, healthcare), levying contributions through a progressive PIT or using taxes that bear not only on labor but possibly also on capital income, property and/ or consumption to finance social benefits could help reduce labor costs for low-income workers and increase employment but also ensure the financing of social security systems. France, for instance, levies SSCs on personal capital income and has considered the implementation of a “social” VAT (i.e., a VAT rate increase to finance the social security system).<sup>34</sup> The logic is that VAT is paid by everyone and alleviating poverty can be borne by everyone through their consumption.

<sup>34</sup> Ortiz, Isabel, M. Cummins and K. Karunanethy (2017). *Fiscal Space for Social Protection and the SDGs. Options to Expand Social Investments in 187 Countries. International Labour Organization, Geneva. 2017.*

#### 4.5 Performance measurement framework for Target 1.3

The custodian agency for Indicator 1.3.1 is the **International Labor Organization (ILO)** and the partner agency is the **World Bank**. This is a Tier I indicator and the data for the criteria used in STF can be accessed through the World Bank databank on World Development Indicators.

Table 1.3 sets out the criteria for scoring the dimension and sub-dimension of Target 1.3.

**Table 1.3. Performance Measurement Framework for Target 1.3**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 1.3</b> <i>Implement nationally appropriate social protection systems and measures for all</i>	Indicator: 1.3.1. Proportion of population covered by social protection by sex, distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women, newborns, work-injury victims and the poor and the vulnerable	<b>G1-D3:            Sustainability of the social security base</b>	<b>Sub-dimension 1:</b> Level of effort to keep social security sustainable.	A	The social security system is funded through social security contributions and/or taxes and consists of: <ol style="list-style-type: none"> <li>i. a non-contributory old age pension,</li> <li>ii. a contributory retirement savings scheme,</li> <li>iii. a health insurance,</li> <li>iv. unemployment insurance</li> </ol> [Note: Social protection programs (cash transfers, wrap around services, etc.), that are funded from the budget, are not evaluated here]:
				B	Same as A (i) to A (iii)
				C	Same as A (i) and A (ii)
				D	The social security system is either skeletal or does not exist



## 5. Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture

**Goal 2 has close synergies with Goal 1 (Removing Poverty) and Goal 10 (Reducing Inequality) and should be examined together**

### 5.1 Background and good practices

Addressing global food security objectives is a multidimensional global challenge. The core contribution of agriculture can be encapsulated in the goal of achieving sustainable productivity growth, protecting the natural resource base and enabling future growth. Finding the appropriate policy tools to enhance the capacity of the food and agriculture sector to grow sustainably is a challenge for all governments and a target for the international community as established in the SDGs.

The UN Food and Agriculture Organization (FAO) has designated 44 countries (34 in Africa, 3 in the Americas and 8 in Asia) as Low-Income Food-Deficit Countries (LIFDC) as of June 2023. Three countries (Bangladesh, Cote d'Ivoire and Ghana) have graduated out of the LIFDC list in 2023.

*Source: FAO. Low-Income Food-Deficit Countries (LIFDCs) List Updated June 2023.*

Ending hunger and malnutrition is among the greatest challenges humanity faces. A person is considered “food secure” when they have the physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life (as defined by the United Nations Committee on World Food Security). Urgent action is needed to address global food security. These are critical challenges for the world requiring international cooperation and policy reform.<sup>35</sup>

While progress had been made over the years to improve food security, the pandemic has reversed many of these gains which were already uneven across countries and regions. According to estimates by the FAO, COVID-19 has led to a sharp increase in undernourishment with between 720 and 811 million people in the world facing hunger in 2020, 118 million more people in 2020 than in 2019. Post-COVID, between 691 and 783 million people faced hunger in 2022.<sup>36</sup> Persistent supply chain issues and regional conflicts are leading to a cost of living crisis that threatens to push millions more into poverty and hunger. The root cause of most food insecurity today is poverty.<sup>37</sup>

<sup>35</sup> OECD. *Better agro-food policies are crucial to improving global food security*. <https://www.oecd.org/agriculture/topics/food-security/>

<sup>36</sup> FAO. *Hunger and food insecurity*. <https://www.fao.org/hunger/en/>. 2023

<sup>37</sup> Ibid.

Food security is not only about the availability of food, but also about better access to food. Despite average global food availability per person growing by 4 percent to 2030, achieving SDG 2 on zero hunger will be challenging.<sup>38</sup> Trade will remain essential for food security in food-importing countries and for rural livelihoods in food-exporting countries. The war in Ukraine has deepened this challenge.

Policy efforts must focus on sustainable solutions to build medium- and long-term resilience to food supply shocks for those people currently afflicted by chronic hunger and food insecurity. Socio-economically disadvantaged groups tend to consume less nutritious food, leading to suboptimal health outcomes. Increasing the incomes of the poor and tackling development challenges for countries are critical elements for achieving global food security. But policies may also be needed to ensure that higher incomes translate into improved nutrition, including policies focused on agriculture, health, education, social protection and infrastructure. Agricultural policies are often maintained with the stated aim of increasing food production and, therefore, food security. Africa has the highest levels of severe food insecurity, with 21 percent of the population (around 227 million) suffering from hunger in 2020, almost four times the level of any other region.<sup>39</sup> Food insecurity is on the rise, particularly in sub-Saharan Africa, where 70.4 percent of the population had moderate to severe food insecurity. High food insecurity was also observed in Latin America between where 131 million people cannot access healthy diet.<sup>40</sup> The observed increases in undernourishment and severe food insecurity are most notable in situations of conflict and political instability, both of which hinder growth and represent major drivers of poverty. For example, conflict, compounded by severe weather events, has resulted in an unprecedented situation of severe food insecurity in South Sudan, Somalia, North-Eastern Nigeria and Yemen.<sup>41</sup> These countries together account for 108 million people on the brink of famine.<sup>42</sup>

## 5.2 Desired outcome

The desired outcomes for Goal 2 that can be supported by tax interventions are enunciated in Targets 2.1, 2.4 and 2.b and the corresponding outcome indicators in 2.1.2, 2.4.1 and 2.b.1.

**Target 2.1** *By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food throughout the year.*

**Target 2.4** *By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.*

38 Ibid.

39 A. H. Wudil, M. Usman et al. *Reversing Years for Global Food Security: A Review of the Food Security Situation in Sub-Saharan Africa*. International Journal of Environmental Research and Public Health. November 2022 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9690952/#:~:text=In%202015%2C%20there%20were%2052.3,moderate%20food%20insecurity%20%5B50%5D>.

40 <https://www.paho.org/en/news/19-1-2023-report>,

41 Justin Quinton, Glenn Jenkins and Godwin Olasehinde-Williams. *Benefits of Hindsight: Did the 2015 Oil Price Shock and Policy Responses Play Any Role on Household Food Insecurity in Nigeria?* Queens University, Canada. Development Discussion Paper. 2023-12 JDINTL

42 FAO and OECD. (2018). *Food Security and Nutrition: Challenges for Agriculture and the hidden potential of Soil*. A Report to the G20 Deputies. February 2018.

**Target 2.b** *Correct and prevent trade restrictions and distortions in world agricultural markets, including through the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round*

### **Role of tax policy in food security**

Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food for a healthy and active life.”(World Food Summit, 1996). Since the primary cause of most food insecurity is poverty, providing access to low cost food should be an important part of food policy. Food banks and food subsidy are part of the equation from a public expenditure perspective.

From a tax policy perspective, providing a reduced tax rate from consumption taxes for essential food items helps increase access to food for the poor. Simulations show that the reduced rates for basic food items have empirical support, in particular countries with high initial income inequality.<sup>43</sup> Policymakers need to be careful in targeting the right mix of food items, since a general rate reduction or exemption on food is bound to disproportionately help the rich, who consume more food anyway, and thus cause a bigger dent in public finance.<sup>44</sup> Hence the argument of introducing an element of progressivity does not always hold. In Ireland, for instance, twice the benefit of zero rating food went to the richer half of the population.<sup>45</sup> However, reduced rates often lead to compliance challenges.

Most food purchased by the poor, even if legally taxed, will never be taxed since the poor buy their food mainly in informal markets. The cost of collecting VAT in informal markets is not worth the collections raised. Hence, a tax on food is basically only a tax on high income individuals who purchase their food from supermarkets or such formal establishments. A better option to reduce rates for food is VAT credit for basic food items purchased by the poor sections of society.

Examples of targeting food items for zero rating exist in many countries. For instance, in the United Kingdom, food and drink for basic human consumption is usually zero-rated for VAT but items not consumed by low income households are standard rated. These include catering, alcoholic drinks, confectionery, crisps and savory snacks, hot food, sports drinks, hot takeaways, ice cream, soft drinks and mineral water. In many countries, food sold in restaurants usually attracts the standard VAT rate. For better targeting, some countries, e.g., Ireland has detailed information on the VAT treatment of bread depending on ingredient. For instance, ordinary bread is typically zero-rate but bread products such as, garlic bread, onion bread and fennel bread, or egg-based bakery products or pastries do

43 European Commission (2007). *Study on reduced VAT applied to goods and services in the Member States of the European Union*. Final report. DG TAXUD. 2007

44 Herforth A. *Access to Adequate Nutritious Food: New indicators to track progress and inform action*. In: Sahn, D (ed.): *The Fight against Hunger and Malnutrition*. Oxford University Press. 2015

45 Richard Tol, Eimear Leahy and Sean Lyons. *Distributional Effect of Value Added Tax in Ireland*. *The Economic and Social Review*. June 2011

not generally conform to the ingredient definition of bread and may be liable to VAT at the reduced rate, instead of zero rate. Alcohol products are typically liable for VAT at the standard rate and high excise taxes.

### 5.3 Performance measurement framework for Target 2.1

The custodian agency for Indicator 2.1.2 is the **Food and Agriculture Organization (FAO)**. This is a Tier I indicator.

Table 2.1 sets out the criteria for scoring the dimension and sub-dimension of Target 2.1.

**Table 2.1 Performance Measurement Framework for Target 2.1**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 2.1</b> <i>By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round</i>	Indicator 2.1.2 Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)	<b>G2-D1: Tax interventions for improving food security</b>	<b>Sub-dimension 1:</b> Consumption tax relief on targeted food products that are used by the poor and vulnerable section of society.	A	i. VAT credit is provided for basic food consumed by low-income households.  ii. While food typically consumed only by the poor is zero-rated, high-end food products including catering/ restaurant services, alcoholic drinks, confectionery, crisps and savory snacks, sports drinks, ice cream, soft drinks and mineral water are taxed at standard rates.  iii. For better targeting, detailed information with ingredient definition is provided to distinguish between items that are essential for food security and those that are not.
				B	Same as (i) and (ii) of A
				C	Same as (ii) of A
				D	There is no VAT relief for ensuring food security.

#### Sustainable and resilient agriculture production

Today, agriculture faces a triple challenge. The production of safe and nutritious food will need to increase to meet the growing demand and ensure food security for all. The sector has to generate



jobs and incomes and contribute to poverty eradication and rural economic growth. Furthermore, it has a major role to play in ensuring the sustainability of natural resources and in combating climate change.<sup>46</sup>

Many of the challenges faced by agriculture, especially in developing countries, can be met by successful structural transformation, including rural transformation.<sup>47</sup> Labor productivity increases in agriculture promote food security, lead to higher wages, especially for the unskilled in the rural areas, and contribute towards the eradication of extreme poverty. As structural and rural transformation proceeds, agriculture contributes to economic growth in other sectors and the wider economy, and entrepreneurial and job opportunities are created all along agricultural supply chains. Farmers become more competitive. More nutritious food results in higher non-farm productivity, and as rural households invest in human capital, they further raise their own productivity and diversify their income sources with some family members leaving the farm for other economic opportunities.<sup>48</sup>

In a standard view of structural transformation, countries at low levels of development start from a position of having a large, non-commercial or subsistence agriculture sector, with fragmented input and output markets, that accounts for a large proportion of their GDP, and an even larger proportion of employment. Worldwide, farms of less than 1 hectare account for 72 percent of all farms but control only 8 percent of all agricultural land. In some developing countries in Asia and Africa, further fragmentation of small farm holdings is taking place, raising questions about their viability. In this setting, balanced growth is achieved if the agriculture sector becomes increasingly commercialized and competitive. The question is when and how countries should open their agriculture sectors to greater competition.<sup>49</sup>

The public sector plays a major role in the provision of knowledge infrastructure and the financing of basic research or research on long term and public good aspects not taken by the private sector such as natural resource management. The Green Revolution in India in the 1960s is an early example during which agriculture in India was converted into a modern industrial system by the adoption of technology, such as the use of high yielding variety (HYV) seeds, mechanized farm tools, irrigation facilities, pesticides and fertilizers. Governments need to redirect scarce resources for agricultural interventions towards measures that are well targeted to strengthen the productivity and sustainability of the sector.

46 FAO and OECD. (2018). *Food Security and Nutrition: Challenges for Agriculture and the hidden potential of Soil*. A Report to the G20 Deputies. February 2018.

47 FAO (2016). *How can trade and related policies be used to contribute to food security objectives?* Trade Policy Briefs, No. 19. May 2016. <https://www.fao.org/3/i5737e/i5737e.pdf>

48 FAO and OECD. (2018). *Food Security and Nutrition: Challenges for Agriculture and the hidden potential of Soil*. A Report to the G20 Deputies. February 2018.

49 FAO (2016). *How can trade and related policies be used to contribute to food security objectives?* Trade Policy Briefs, No. 19. May 2016. <https://www.fao.org/3/i5737e/i5737e.pdf>

## Tax policy and sustainable agriculture

Tax policy is often used as a lever through which to affect behavior in the agricultural sector, impacting producer income, farmland transfer, investment, innovation, and sustainability outcomes. Tax interventions, in particular through income taxation, affect agricultural competitiveness through its impact on farm income levels and variability, investment in land and technology, labor and other input use, and the adoption of farm practices. For example, tax systems can incentivize farm investments by reducing taxable income through provisions for accelerated depreciation.

In many developing countries, the footprint of taxes on agriculture is relatively small. In India, agricultural income is not subject to income taxation. This has not benefited small farmers whose incomes are below the non-taxable threshold, and on the contrary, helped large farmers. It is frequently used as an instrument for profit shifting from other taxable incomes to agricultural income. In some countries, the tax system allows farmers to smooth income variations over time by using tax averaging. Taxes on income, property and land, and capital transfer may affect structural change, while differential tax rates on specific polluting activities, resources, or input use may affect sustainability.<sup>50</sup> This might be relevant for large agricultural firms in developed countries but has little relevance for small farmers in developing countries.

Many countries provide VAT zero rate or reduced rates and lower import duties for agricultural inputs such as fertilizers, high yield seeds, animals, and animal feeding products, as a means to achieve structural transformation and to lower the cost of inputs. Higher use of chemical fertilizers has substantially increased crop yield and reduced dependence on land and are responsible for 40 percent to 60 percent of the world's food production. Between 1960 and today, global food production more than tripled, and agricultural land use increased by less than 15 percent. The share of the population suffering from food and nutrition insecurity fell from 15 percent in 2000 to around 11 percent today.<sup>51</sup> Yet there are several harmful effects of chemical fertilizers on human health and the environment. Taking the negative effect into account, the tax incentive should be limited to organic fertilizers. Organic fertilizers minimize the negative impact of chemical fertilizer on earth and the environment. However, the efficiency of organic fertilizer is 10 to 20 percent of the efficiency of chemical fertilizer so it will be a difficult choice to change. There is evidence that in many countries, tax provisions supported farm income, facilitated innovation and investment, thus allowing farm expansion. Another general finding is that tax instruments have limited capacity to improve sectoral productivity and sustainability when inefficient farms are largely exempted from taxation.<sup>52</sup>

50 OECD (2019). *Taxation in Agriculture*. [https://www.oecd-ilibrary.org/sites/073bdf99-en/1/1/1/index.html?itemId=/content/publication/073bdf99-en&csp\\_=eff68945dd337defc6e9948e27bfd6&itemGO=oecd&itemContentType=book](https://www.oecd-ilibrary.org/sites/073bdf99-en/1/1/1/index.html?itemId=/content/publication/073bdf99-en&csp_=eff68945dd337defc6e9948e27bfd6&itemGO=oecd&itemContentType=book)

51 OECD (2021). *How we feed the world today*. <https://www.oecd.org/agriculture/understanding-the-global-food-system/how-we-feed-the-world-today/>

52 [https://www.oecd-ilibrary.org/sites/073bdf99-en/1/1/1/index.html?itemId=/content/publication/073bdf99-en&csp\\_=eff68945dd337defc6e9948e27bfd6&itemGO=oecd&itemContentType=book](https://www.oecd-ilibrary.org/sites/073bdf99-en/1/1/1/index.html?itemId=/content/publication/073bdf99-en&csp_=eff68945dd337defc6e9948e27bfd6&itemGO=oecd&itemContentType=book)

## 5.4 Performance measurement framework for Target 2.4

The custodian agency for Indicator 2.4.1 is FAO and the partner agency is **UNEP**. This is a Tier II indicator.

Table 2.2 sets out the criteria for scoring the dimension and sub-dimension of Target 2.4

**Table 2.2. Performance Measurement Framework for Target 2.4:**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 2.4</b> <i>By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality</i>	Indicator 2.4.1 Proportion of agricultural area under productive and sustainable agriculture	<b>G2-D2: Tax policy promoting sustainable agriculture</b>	<b>Sub-dimension 1:</b> Promoting sustainable agriculture through tax reliefs on agricultural income, farm property, capital transfer of farmland and VAT on agricultural inputs.	A	i. There is a provision in the tax law for investment allowance as a percentage of the amount of farm investment, which is allowed as a deduction from taxable income. ii. Accelerated depreciation or immediate expensing is allowed for investment in new technology that has the potential to raise agricultural productivity. iii. Farm income is subject to income tax and there is no comprehensive income tax exclusion of farm income that tends to benefit large farmers. iv. The tax system allows farmers to smooth income variations over time by using tax averaging. v. There are tax rebates for agricultural property tax and land transfer tax as a means to allow structural change. vi. VAT zero rate or reduced rate is allowed for sustainable agricultural inputs such as fertilizers, high yield seeds, animals, and animal feeding products, as a means to achieve structural transformation and to lower the cost of inputs.
				B	Same as A (i) , A (ii), A (iii) and A (v). Reduced VAT rates are allowed for some agricultural inputs.

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
				C	vii. Same as A (i) and A (ii). viii. Reduced VAT rates are allowed for some agricultural inputs.
				D	Conditions for a C score are not met.

### Export taxes

For a defined period of interventions to promote productivity enhancing private investment, trade policy can help reduce production risks and provide the stability needed for producers to react positively to the incentives.<sup>53</sup> Use of export taxes are often popular during the food crisis. Several elements can justify the implementation of such trade practices:

- i. export taxes can raise the world price of exports and therefore improve terms of trade;
- ii. export taxes can reduce the domestic price of the taxed commodity and benefit final domestic consumers of this commodity, especially when the commodity is an agricultural one and food security is at stake;
- iii. export taxes can reduce the domestic price of the taxed commodity and benefit intermediate consumption of this commodity (important when the commodity is a primary one and expansion of the manufacturing sector that buys it is at stake);
- iv. export taxes increase public revenue, which is beneficial in a country where fiscal receipts on the domestic base are small; and export taxes are a means of redistributing income from domestic producers to domestic consumers and the public sector.<sup>54</sup>

#### Box 5.4

There has been growing international demand under the Doha Development Agenda to eliminate or reduce export taxes by all WTO members. While this proposal has been well received by countries such as Canada, the United States, Switzerland, and Korea, it has been highly criticized by some developing countries such as Argentina, Malaysia, Indonesia, Brazil, Pakistan, Cuba, India, and Venezuela. It is noteworthy that the European Union makes a distinction between trade-distorting taxes and “legitimate” export taxes like those applied in the context of balance-of-payments imbalances. The European Union proposes a full prohibition of trade-distorting export taxes.

53 FAO (2016). *How can trade and related policies be used to contribute to food security objectives?* Trade Policy Briefs, No. 19. May 2016. <https://www.fao.org/3/i5737e/i5737e.pdf>

54 Bouët, Antoine and David L. Debucquet (2010). *Economics of Export Taxation in a Context of Food Crisis*. International Food Policy Research Institute (IFPRI). IFPRI Discussion Paper 00994. June 2010.

Export taxes and import tariffs exhibit strong similarities or can even be equivalent in terms of their impact on domestic and foreign welfare. Another justification for eliminating export taxes is the consideration of net food-importing small countries that can be strongly harmed in the event of a food crisis and by the escalation of export taxes throughout the world. These countries do not have many policy instruments with which to address this kind of issue, and this has the potential of aggravating food crisis and hunger. Export taxes and export restrictions could clearly become a new and major bone of contention between high-income countries and agrifood exporting middle-income countries in trade negotiations.<sup>55</sup>

## 5.5 Performance measurement framework for Target 2.b

The custodian agency for Indicator 2.b.1 is the **World Trade Organization** (WTO). This is a Tier I indicator.

Table 2.3 sets out the criteria for scoring the dimension and sub-dimension of Target 2.b.

**Table 2.3. Performance Measurement Framework for Target 2.b:**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 2.b - Correct and prevent trade restrictions and distortions in world agricultural markets, including through the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round</b>	Indicator 2.b.1 Agricultural export subsidies	<b>G2-D3: Limiting trade restrictions</b>	<b>Sub-dimension 1:</b> The extent to which export taxes and other trade restrictions on food and agricultural products are eliminated.	A	i. Export taxes on agricultural products including food are eliminated. ii. If export taxes on agricultural products are levied, they are imposed on targeted products that are affected by domestic food crisis. iii. The export taxes mentioned in (ii) are temporary and are removed, soon after the food crisis is over.
				B	i. Export taxes are not well targeted and are levied on food products that are not affected by a food crisis. ii. Same as A (iii)

55 Ibid.

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
				C	<ul style="list-style-type: none"> <li>i. Export taxes are not well targeted and are levied on food products that are not affected by a food crisis.</li> <li>ii. Export taxes are removed, but many years after the food crisis for particular products is over.</li> </ul>
				D	Export taxes on food products are permanent and levied on a large variety of such products.

DRAFT



## 6. Goal 3: Ensure healthy lives and promote well-being for all at all ages

---

### 6.1 Background and good practices

Sustainable Development Goal 3 commits countries to ensuring good health and well-being for all, addressing the principal causes of death and disability, as well as promoting four targets that identify concrete means for countries to achieve better health. Tax policy, both directly and indirectly, can influence many of the targets and indicators under this SDG.

Spending on health is traditionally seen as a key determinant of countries' ability to reach healthy outcomes, with a linear relationship existing up until a relatively high amount of spending per capita. However, the economic decline in 2020-2021 resulting from the COVID-19 pandemic has led to decreases in non-pandemic related health spending, as economic growth has historically been the main determinant of real increases in health budgets. In September 2021, World Bank experts said it would take years for health expenditures to get back to pre-pandemic growth rates as a consequence of the pandemic.<sup>56</sup> As a result, the current context presents the right opportunity to investigate how tax policies can affect health, beyond their ability to raise revenues.

The first way tax policy is used to achieve health goals is through the imposition of taxes on health-harming goods, namely alcoholic beverages, tobacco products, and sugar-sweetened beverages (SSBs), as well as carbon tax among others. These 'health taxes' can help accelerate progress towards SDGs by (i) providing price incentives to change people's behavior to achieve better health outcomes, (ii) provide incentives for firms to change the content of their health-harming products, as well as (iii) raise revenues to finance health. Some countries have also expanded to tax sugar and high-sugar goods, but taxing SSBs is generally considered the most effective policy, given the nature of such beverages as containing 'empty calories', that contribute to the calories ingested but not to the natural process of satiation, which helps limits how much we eat. Another type of 'health-harming product' are fossil fuels, and it is becoming more common to promote taxes on fossil fuels for their health-improving possibilities, which work in the same way as the other health taxes.

Above all, appropriately high taxes on health-harming products (in line with good practice<sup>15</sup>) help reduce their consumption. However, there are other tax policies that can help contribute to reaching the health-related SDGs. In the same way health taxes disincentivize certain behaviors, Tax rebates or credit, to compensate for the cost of expenses that promote good health, such as sporting goods and equipments can incentivize households to make different consumption decisions and lead healthier lives.

---

<sup>56</sup> Ursula Giedion, Julian Alberti and Javier Guzman (2022). *How LAC Countries Can Protect the Health of Their Populations in a New Economic Reality*. Center for Global Development. (2022)

Furthermore, tax policies can be employed to support financing for health. First and foremost, taxes can be directed towards health, either towards general health budgets or specific health-related programs or initiatives, provided the country does not have constitutional restrictions on earmarking. Supporting this public financing for health, private financing for health can be mobilized through tax deductions for expenses related to health insurance, that will improve coverage for individuals and employees in voluntary insurance schemes, if they are not eligible for public health schemes. These tax policies, and the others mentioned above, can have a positive impact on targets within SDG 3, but often require accompanying regulation, oversight and other government intervention and actions to not lead to unintended consequences. Furthermore, these tax policies should be considered complementary to other actions for improving population health, such as education campaigns, government regulations (including consumption bans), and preventive, population-wide interventions such as disease-screening programs.

## 6.2 Desired outcome

The desired outcome for Goal 3 that can be supported by tax interventions is enunciated in Targets 3.4, 3.5, 3.7, 3.8, 3.a and 3.b, and the corresponding outcome indicators in 3.4.1, 3.5.2, 3.7.1, 3.8.1, 3.a.1 and 3.b.1.

**Target 3.4** *By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being*

**Target 3.5** *Target 3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol*

**Target 3.8** *Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all*

**Target 3.9** *Substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination*

**Target 3.a** *Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate*

**Target 3.b** *Support the research and development of vaccines and medicines for communicable and non-communicable diseases*

### Non-communicable diseases

Non-communicable diseases (NCDs) are the leading cause of death in the world, representing around 75% of all deaths. These are principally made up of cardiovascular diseases, cancers, respiratory diseases, and diabetes, with the share continuing to rise, particularly in low- and middle-income



countries (LMICs), where more than half of NCD-related deaths occur before the age of 70<sup>57</sup>. One particularly preventable factor that contributes to these deaths is the consumption of ‘health-harming products’, which is increasing rapidly in LMICs, and within lower income groups within every country<sup>2</sup>.

There is overwhelming evidence showing that taxes on tobacco, alcohol and SSBs, often known as ‘health taxes’, are among the most cost-effective interventions for addressing NCDs. While taxes on tobacco and alcohol have existed for centuries, principally as revenue-raising policies, the introduction of taxes on SSBs over the past decade have signaled the first set of successful fiscal policies implemented first and foremost for their health impact. Carbon taxes can also be implemented for health reasons, as has been the case for example in Chile, where a downstream carbon tax was implemented, among other reasons, to reduce particulate matter concentrations in large cities caused by the release of exhaustible fumes. (In the STF, carbon taxes are further elaborated in SDG 7 and SDG 13.)

Conceptually, health taxes correct market failures as the costs of negative health outcomes are often not fully borne by the consumer, representing an *externality*. If they are successful, health taxes will incorporate these two forces into the purchasing decisions of individuals, so that by increasing prices, consumption of health-harming goods decreases.

The aim of health tax policy, thus, is to reduce the consumption of products deemed to be risk factors for NCDs by making them less affordable through higher prices. This is achieved with regular tax increases large enough to result in real price increases greater than economic growth. These taxes are often considered “win-win-win” policies as they save lives and prevent disease while advancing health equity<sup>58</sup> and mobilizing additional domestic revenues. To mobilize support for their implementation, such taxes are often earmarked for health, such as for financing universal health coverage (UHC) or for directly linked interventions (tobacco taxes used for smoking cessation programs). However, earmarking is not a necessary feature of public finance, and overall improvement in DRM normally also supports financing for health programs.

In terms of tax design, specific excise taxes are the most effective tax measure for promoting health because they change the price of a harmful product relative to other goods and administratively, can be easily increased over time. Consumption is reduced best with taxes based on the quantity (known as specific taxes) of an unhealthy product (such as packs of cigarettes) or its unhealthy ingredient (such as quantities of pure alcohol or sugar) rather than taxes based on the product’s value.<sup>59</sup> For some taxes, SSBs in particular, tiered systems are used, charging different amounts of tax for products falling in different groups or tiers, depending on their content. Having a lower tax rate for each gram of sugar below a certain threshold incentivizes action by producers, rather than consumers, to reformulate

57 The Task Force on Fiscal Policy for Health. *Health taxes to save lives: Employing effective excise taxes on tobacco, alcohol, and sugary beverages*. Bloomberg Philanthropies. 2019.

58 While their direct impact may be regressive, as consumption of these goods are more prevalent in lower income groups, the impact of price changes also change behavior in these groups more than in others, and the health and income effect of these changes represent larger % changes in lifetime earnings or averted health spending (Jain, V., Crosby, L., Baker, P., & Chalkidou, K. (2020). Distributional equity as a consideration in economic and modelling evaluations of health taxes: a systematic review. *Health Policy*, 124(9), 919-931.)

59 World Health Organization (2021). Health Taxes. [https://www.who.int/health-topics/health-taxes#tab=tab\\_1](https://www.who.int/health-topics/health-taxes#tab=tab_1)

the content of their products, which in the end reduces the total consumption of the health-harming component of these products and contributes to improving health outcomes<sup>60</sup>.

It should be noted that these products have varied elasticities of demand, for different countries and different groups within countries. The consumption of some is much more *inelastic*, or that a change in price will more unlikely lead to a change in consumer behavior. SSBs are commonly the most inelastic product, where the percentage change in consumption is much smaller than the percentage change in taxes, which would represent for many a decrease in other areas of consumption to maintain their consumption of SSBs. However, lower-income groups are generally more price-sensitive, and so most likely to change their consumption behaviors with changes in price, and so will remain those mostly likely to have additional shares of household income to spend on other goods, as well as reap the health and long term employment benefits of reduced SSB consumption.

Tax policies can also be put in place to reward behavior that is beneficial to health. Many countries promote tax deductions for expenses that improve individual fitness and health, such as the ‘Cycle scheme’ in the UK, where the costs of purchasing a bicycle are deducted from one’s individual tax burden. While this may prove fiscally difficult in most countries, there are a variety of policies that are effective in changing the behavior of individuals. Changes to VAT and other broad taxes for ‘healthy and unhealthy goods’ are becoming more commonplace around the world, where the most typical approach has applied lower VAT rates for healthy foods, such as fruits and vegetables, and higher VAT rates for unhealthy foods, such as those high in sugar, saturated-fats, processed meats, and others. Similar preferential VAT rates on other health promoting goods such as bicycles and sporting equipment follow in the spirit of this approach. However, the criticism levied on this approach is that these tax incentives largely benefit high income consumers. It is, therefore, important to consider the equity implications of reforms to any tax policies to address NCDs, as those who benefit from these changes may not be the lowest income households. It would be useful to conduct cost benefit and incidence analyses to determine the impact of measures to reward healthy habits before introducing them.

In general, it should be emphasized that tax policies are not the only policy in promoting healthier consumption, and in many ways not the most effective. Smoking has decreased throughout the world, part because of higher tobacco taxes and the cost of smoking, but also because of public smoking bans, front of packet labels, advocacy campaigns on the dangers of smoking, among others. Similarly, such policies for all health-harming products and for the promotion of health-improving behaviors and consumption should be pursued in partnership with these tax policies.

<sup>60</sup> Several countries, notably the UK and Mexico, saw decreases in sugar consumption from implementing tiered, specific SSB tax structures, which has led to measurable health benefits.

### 6.3 Performance measurement framework for Target 3.4

The custodian agency for Indicator 3.4.1 is the **World Health Organization (WHO)**. This is a Tier I indicator.

Table 3.1 sets out the criteria for scoring the dimensions and sub-dimensions of Target 3.4.

**Table 3.1. Target 3.4: Performance Measurement Framework**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 3.4</b> <i>By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being</i>	Indicator 3.4.1 Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease	<b>G3-D1: The scope of tax measures designed to prevent NCDs</b>	<b>Sub-dimension 1:</b> Extent to which health taxes are imposed to discourage the consumption of products that are harmful to health	A	<ul style="list-style-type: none"> <li>i. “Appropriately high” levels<sup>61</sup> of specific excise taxes or other consumption taxes are levied to discourage consumption of the following unhealthy products:               <ul style="list-style-type: none"> <li>a. Alcohol</li> <li>b. Cigarettes and other tobacco products</li> <li>c. Sugar and sugar-sweetened beverages.</li> </ul> </li> <li>ii. These taxes are based on the quantity of an unhealthy product, or its unhealthy ingredient rather than taxes based on the product’s value.</li> <li>iii. Where no excise taxes are levied on imported health-harming products, these are burdened by an equivalent tax at the border (import tariff and VAT on import), thus providing parity in pricing between domestically produced and foreign derived products.</li> </ul>

61 “Appropriately high” level would mean high enough to discourage most people from picking up the habit, but not high enough to encourage a black market. The level will vary by country and situation depending on the level of abuse of the unhealthy substance and the enforcement capacity to check black market.

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
				B	Same as (i) a, (i) b, and (iii) of 'A' score
				C	Same as (i) a, and (i) b of 'A' score
				D	The requirements for a 'C' score are not met.
			<b>Sub-dimension 2:</b> Extent to which individuals benefit from tax policy that promotes healthy behaviors	A	<ul style="list-style-type: none"> <li>i. The tax system allows for reduced VAT for purchases of goods promoting good health such as fruits and vegetables, bicycles, fitness equipment, etc. only if cost benefit analysis indicates that the revenue lost as a result of the incentive is lower than the social and economic benefit of better health outcome.</li> <li>ii. The tax system places unhealthy foods, such as those high in sugar or saturated-fats in higher VAT rates than other food products.</li> <li>iii. The tax system allows for full or partial personal income tax deduction of expenses related to good health, such as bicycles, fitness equipment etc. only if cost benefit analysis indicates that the revenue lost as a result of the incentive is lower than the social and economic benefit of better health outcome.</li> </ul>

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
				B	Any two of (i), (ii) or (iii) of A
				C	Either (i) or (ii) are met, but not both.
				D	The requirements for a 'C' score are not met.

### Prevention of substance and alcohol abuse

Alcohol is the second principal risk factor for NCDs, being responsible for approximately 5 percent of deaths worldwide. Consumption of alcohol contributes to immediate harms, such as injuries, road-traffic accidents and child and spousal abuse, and long-term ones, such as liver disease and mental health problems. Consumption of alcohol varies significantly across countries, but also within countries, as lower income groups and youths consume more alcohol, and men in most countries consume more than women, with notable differences in certain regions, such as Eastern Europe and South-East Asia. Overall consumption is rising in LMICs, as beer has become more affordable in countries as incomes have risen faster than inflation, partly in response to this, and partly in a move to penetrate 'untapped markets', the alcohol industry has pursued selling more of their products where drinking alcoholic beverages has not been prevalent.

Taxes on alcohol have been found to be particularly effective in lowering alcohol consumption and preventing the above mentioned sources of death and disability. Taxes do not affect all groups equally, as younger cohorts and those in lower income groups are more likely to consume less alcohol or stop consuming it in response to price increases. Meanwhile, the principal beneficiaries of changes in consumption tend to be women and children, who besides being less likely to suffer alcohol-related physical abuse, are less likely to have to stay home for sick family members and see household expenditures shift away from health-harming products towards food, education and other necessities.

Currently, alcohol taxes globally make up less than 20% of final retail prices, on average, far below the tax rates where total tax revenue from alcohol sales would decrease. The structure of these is often very complex, as taxes are imposed both on the price of alcohol as well as on the volume of pure alcohol in a product, or where different rates apply to different kinds of products. Furthermore, different rates may be imposed in different tiers, imposing higher rates on higher-alcohol products. Such mixed taxation should still include a tax component in proportion to the total alcohol quantity, rather than a uniform or price-linked amount in each tier, to be particularly effective.

## 6.4 Performance measurement framework for Target 3.5

The custodian agency for Indicator 3.5.2 is the WHO. This is a Tier I indicator

Table 3.2 sets out the criteria for scoring the dimensions and sub-dimensions of Target 3.5.

**Table 3.2 Performance Measurement Framework for Target 3.5**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 3.5</b> <i>Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol</i>	Indicator 3.5.2 Alcohol per capita consumption (aged 15 years and older) within a calendar year in litres of pure alcohol	<b>G3-D2: The extent of tax measures in place to discourage alcohol consumption</b>	<b>Sub-dimension 1:</b> Extent to which taxes are imposed to discourage the consumption of alcohol	A	i. “Appropriately high” levels <sup>62</sup> of excise taxes or other consumption taxes are levied to discourage consumption of alcohol ii. These taxes are based on the quantity of pure alcohol, rather than the product’s value. iii. Alcohol tax rates, based on alcohol content, are uniform across types, or tiered to be lower in beverages with lower alcohol content. iv. Products imported into the country are burdened by an equivalent tax at the border, thus providing parity in pricing between domestically produced and foreign derived products.
				B	Same as (i) and (ii) of ‘A’ score
				C	Same as (ii-) of ‘A’ score
				D	The requirements for a ‘C’ score are not met

<sup>62</sup> “Appropriately high” level would mean high enough to discourage most people from picking up the habit, but not high enough to encourage a black market. The level will vary by country and situation depending on the level of abuse of the unhealthy substance and the enforcement capacity to check black market.

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
			<b>Sub-dimension 2:</b> Extent to which tax and customs administrations and other law enforcement agencies enforce the payment of import and excise tax on alcohol	A	<ul style="list-style-type: none"> <li>i. A track-and-trace system is fully in place for the sale of alcoholic beverages</li> <li>ii. Effective monitoring and surveillance on the illicit trade or domestic production of alcoholic beverages</li> <li>iii. A well-functioning program to address unlicensed production of alcoholic beverages</li> </ul>
				B	<ul style="list-style-type: none"> <li>i. Parts of a track and trace system on alcoholic beverages are in place, such as the use of tax stamps for sale of alcoholic beverages</li> <li>ii. An existing program by customs administrations to address illicit trade of alcoholic beverages</li> <li>iii. An existing program to address unlicensed production of alcoholic beverages</li> </ul>
				C	Item (i) and (iii) of 'B' score
				D	The requirements for a 'C' score are not met

### Access to universal health coverage and affordable medicines

Universal Health Coverage (UHC) reflects the ability of individuals to seek and receive health care without incurring exceptional expense. The most direct way to ensure this is to shift individuals and households away from having to pay for health care when it is needed and received, referred to as out-of-pocket spending, to being part of insurance schemes that guarantee health care without this expense at the time of care. There is great variation between insurance schemes, where the WHO makes it clear that obligatory participation in schemes is what is needed to underpin UHC. Where this is not immediately feasible, countries can support individuals and households by creating tax policies that guide choices towards health care that avoids catastrophic expenditure for health through participation in insurance schemes.

The first such tax policy is to allow tax credit on personal income tax to low-income individuals for covering the cost of premiums for subscriptions to health insurance, or participation fees to community health insurance schemes. Expenses for a household in this regard can be significant, and thus represent a sizeable impact on their individual tax burdens but would still be much smaller than expenses made out-of-pocket to respond to an urgent health need. Furthermore, medical needs for women over the course of a lifetime are usually greater, and therefore premiums for private insurance policies for women tend to be more expensive. Making these tax deductible will therefore benefit women more than men.

Community-based health insurance (CBHI) is a growing phenomenon of voluntary health insurance, particularly in Sub-Saharan Africa, and works less like a for-profit firm, but rather a vehicle for collective action, to pool funds and risks, for emergency health care needs. Such funds require paying a fee to join the scheme and may also have annual payments to continue being a member, akin to 'normal' insurance premiums. While common in high-income countries, private health insurance schemes are making inroads in LMICs and governments are considering whether to support participation in such schemes through creating tax deductions from private income for expenses related to purchasing private insurance coverage. This has the limitation that these tax offsets are allowed only to people with taxable income and does not provide any incentive to poor households who are below the taxation threshold, while in practice, in many cases, only leading to increases in the cost of premiums, as insurance companies set prices in line with what consumers are willing to pay.

Both systems, however, due to their voluntary nature suffer from adverse selection. Those who are younger and healthier are less willing to purchase more comprehensive insurance, and as such do not form part of voluntary funding pools, to cross-subsidize those with greater needs within the same insurance company portfolio, leading the company to drive these who need this insurance the most, out of coverage. However, voluntary health insurance can play a key role towards UHC, as long as its promotion is managed wisely, with an understanding of the way private funding works within the national health financing mechanism<sup>63</sup>.

A second tax policy, which is more prevalent in economies with a relatively large share of formal sector employment, is allowing for enhanced corporate tax deductions for expenses related to enrolling employees into voluntary insurance schemes. This can be similar to contributions to pension schemes, and often are structured to match contributions by individuals, or other sources. This, however, has all the same limitations as with tax deductions to individual contributions to private health insurance schemes, and should be considered a first step towards a system with greater public, not private, health financing.

In terms of public financing of health, while many countries finance public healthcare expenditure through general taxation (e.g., Malaysia, Brazil), several others have in place a system of designated contribution or tax that is used to finance certain categories of public healthcare expenditure. For instance, the National Health Service in the UK is funded by mandatory direct contributions from

63 Mathauer, I., Kutzin, J., & World Health Organization. (2018). Voluntary health insurance: potentials and limits in moving towards UHC: policy brief (No. WHO/HIS/HGF/PolicyBrief/18.5). World Health Organization.



taxpayers, as part of their personal income tax burdens, while a separate ‘health and social care levy’ was proposed to provide additional funding to the NHS in 2021<sup>64</sup>. Several types of tax can be directed towards publicly funded healthcare, both as individual or corporate contributions to national schemes, or as directing other types of tax towards health, ‘earmarking’ their use.

Many health taxes have earmarked components, helping health focus of these taxes more salient and transparent, and many countries with extractive industries have included earmarks towards health within taxes on these industries. This, in theory, is done to support increased financing for health, and increased coverage of essential services among the population. However, the evidence across all three policies is limited, if not controversial. In addition to the aforementioned issues that plague voluntary health insurance, mandatory but contributory health insurance schemes, linked to the formal sector and sub-groupings within it, have little success in increasing financing for health as a whole, and creates a framework of entitlement to care as a result of contribution, rather than a right to care, to be guaranteed by the state.<sup>65</sup> Furthermore, earmarking, for health or other purposes, is affected by the fungibility of resources, and with a few notable exceptions, earmarking taxes for health has had little impact on overall financing of health care<sup>66</sup>.

## 6.5 Performance measurement framework for Target 3.8

The **custodian agency** for Indicator 3.8.1 is the **WHO** and the **partner agencies** are **UNICEF, UNFPA, UNDESA** Population Division. This is a Tier I indicator

Table 3.4 sets out the criteria for scoring the dimensions and sub-dimensions of Target 3.8.

**Table 3.4. Performance Measurement Framework for Target 3.8**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 3.8</b> <i>Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all</i>	Indicator 3.8.1 Coverage of essential health services	<b>G3-D4:</b> <b>The scope of tax measures designed to improve financing and coverage of health services</b>	<b>Sub-dimension 1:</b> Extent to which the tax system provides incentive to individuals and household to participate in voluntary insurance schemes	A	The tax system allows for full tax rebates or credit to individuals to cover the cost of participating in voluntary health insurance schemes, including private health insurance schemes.

64 Seely, A. (2022). Health and Social Care Levy (Repeal) Bill 2022-23. UK Parliament. House of Commons Library.

65 Abdo S. Yazbeck, Agnes L. Soucat, Ajay Tandon, Cheryl Cashin, Joseph Kutzin, Julia Watson, Sarah Thomson, Son Nam Nguyen, Tamas Evetovits. Addition to a bad idea, especially in low- and middle-income countries: Contributory health insurance, *Social Science & Medicine*, Volume 320, 2023, 115168.

66 Cashin, C., Sparkes, S., & Bloom, D. (2017). Earmarking for health: from theory to practice (No. WHO/HIS/HGF/HFWorkingPaper/17.5). World Health Organization.

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
				B	The tax system allows partial income tax rebates or credits to individuals to cover the cost of participating in voluntary health insurance schemes, including private health insurance schemes.
				C	The tax system allows partial income tax rebates or credits to individuals to cover the cost of participating in voluntary health insurance schemes, but not private health insurance schemes.
				D	The requirements for a 'B' or 'C' score are not met
			<b>Sub-dimension 2:</b> Extent to which the tax system provides incentives to firms on financing employee insurance plans	A	The tax system allows for: <ul style="list-style-type: none"> <li>i. Enhanced deductions for firms for enrolling employees into voluntary health insurance schemes.</li> <li>ii. Tax deductions to firms for making contributions for employees into voluntary health insurance schemes.</li> </ul>
				B	The tax system allows for: <ul style="list-style-type: none"> <li>i. normal deductions for enrolling employees into voluntary health insurance schemes.</li> <li>ii. partial tax deduction to firms for making contributions for employees into voluntary health insurance schemes.</li> </ul>
				C	(i) of 'B' score
				D	The requirements for a 'C' score are not met.

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
			<b>Sub-dimension 3:</b> Extent to which the tax system directs finance directly to health	A	There are tax mechanisms that direct financing toward health in a broad way: <ol style="list-style-type: none"> <li>i. health programs are financed in part by a specific tax, in a non-legally binding way</li> <li>ii. contributions to social health insurance systems or publicly-financed health systems collected as part of the personal income tax process</li> </ol>
				B	There are tax mechanisms that direct financing toward health: <ol style="list-style-type: none"> <li>i. health programs are fully financed by a tax, in a non-legally binding way</li> <li>ii. contributions to social health insurance systems or publicly financed health systems collected as part of the personal income tax process</li> </ol>
				C	There are tax mechanisms such that health programs are fully financed by a tax, in a legally binding way
				D	The requirements for an 'C' score are not met.

### Reducing illness and death from hazard chemicals and pollution

SDG target 3.9 encompasses a wide range of health risks, mainly those that are attributable to *public goods*, such as the air, water and environment around us. Environmental and occupational risk factors cause an estimated 13.3 million deaths globally each year<sup>67</sup>, while air pollution is estimated as causing nearly 7 million of these.<sup>68</sup> This is the 4<sup>th</sup> largest risk for health, where certain diseases like chronic obstructive pulmonary disease are highly attributable to air pollution. Furthermore, air pollution death does not affect all countries equally, as health complications and air quality have a non-linear

67 Prüss-Üstün A, Wolf J, Corvalán C, Bos R, Neira M. Preventing disease through healthy environments: a global assessment of the burden of disease from environmental risks. Geneva: World Health Organization; 2016

68 IHME, 2019. Air Pollution Factsheet, Level 2 Risk. Global Burden of Disease Project, Institute for Health Metrics and Evaluation.

reaction and take some time to manifest themselves. At the moment, this means that nearly half of all air-pollution deaths are found in South East Asia, but could grow significantly in other regions in the next decades.

Fossil fuels is a leading contributor to air pollution, particularly outdoor or ambient air pollution. Calls for transitioning away from fossil fuels have been made for decades, with a latest statement made by the UN Secretary general noting a need to move away from fossil fuels to ensure “a fair, equitable and just energy transition”.<sup>69</sup> At the same time, despite global commitments such as the Paris Climate Agreements to move away from fossil fuel combustion, globally in 2019, 84% of primary energy consumption and 64% of electricity was from fossil fuels.<sup>70</sup>

Taxation on fossil fuels, also within carbon taxation mechanisms, represent the best way to drive behavior change away from fossil fuel combustion, by increasing the price of this as a fuel or energy source, in the same way that ‘health taxes’ incentivize lower consumption of other health-harming-goods. Fossil fuels can be taxed in a large variety of way, from extraction and generation, to refinement, distribution, and point of use. Most countries that do impose a tax on fossil fuels impose it at the point of use, as most often in the case of fuel for motor vehicles and other modes of transport. This is rarely promoted as tax for health, but rather as a ‘road tax’, a tax that is earmarked for providing revenues for maintaining the transport infrastructure that in a way is proportional to the use of that infrastructure. However, there is great potential for promoting vehicle fuel taxes, and other fossil fuel taxes, as a health tax, without necessarily earmarking its revenues for spending on health. Taxes on fossil fuels used in other industrial processes, mainly through combustion for generation of energy for sale or generation of energy for producing other industrial goods, are more often indirect taxes, imposed on the emissions resulting from this combustion. For greater detail on carbon emissions taxes and other carbon taxes, see the section on SDG 13.

In addition, there may be some fossil fuels that may represent better alternatives in certain contexts, particularly in terms of contributing to household or indoor air pollution, and the use of fuels for cooking and heating. The use of liquid petroleum gas is widespread throughout the world, and many high and middle-income countries are moving to tax or de-standardize the use of this fuel for household cooking and heating. However, for lower-income countries or in rural areas of middle-income countries, the use of this fossil fuel is preferable than the use of the most typical alternatives, namely combustible biomass, in terms of the health impacts of burning these for heating and cooking.<sup>71</sup>

At the same time that taxes on fossil fuels can be imposed as noted above, tax expenditures can exist that instead promote or lower the price of fossil fuels. These are common among producers and within the extractive industry, and relatively common at the distribution and point of sale. Subsidies, particularly for vehicle fuel in fossil fuel producing countries, are more common, but tax expenditures

69 Statement of UNSG, <https://www.un.org/sg/en/content/sg/statement/2023-09-20/secretary-generals-opening-remarks-the-climate-ambition-summit>

70 IEA. “World energy outlook 2022.” Paris, France: IEA, 2022.

71 Greve, H., & Lay, J. (2023). “Stepping down the ladder”: The impacts of fossil fuel subsidy removal in a developing country. *Journal of the Association of Environmental and Resource Economists*, 10(1), 121-158.

that are applied on fossil fuels can also exist. Given the importance of fossil fuels within national economies, and as part of expenditures of a wide range of industries and businesses, as well as households, promoting a review and reform of tax policies on fossil fuels can be very challenging, as attempts to do so in many countries in the last few years have led to significant popular unrest (Gillet Jaunes protests in France, mass strikes in Ecuador and Lebanon, among others). However, a general aim for policy coherence by governments can be a strong motivator to consider reforms on fossil fuel tax policies, which can start conversations in this space.

As with other areas of health risk factors, promoting consumer and producer behavior change can be supported with other policy interventions, in addition to fossil fuel taxation. Clean air standards and pollution regulations and bans can be particularly effective in addressing and preventing air-pollution related death and disability, and advocacy campaigns and community engagement movements have been essential in promoting such tax policy changes, as they are when promoting health taxes, where the opposition of such taxes are less cross-cutting than for fossil fuel taxation.

## 6.6 Performance measurement framework for Target 3.9

The custodian agency for Indicator 3.9.1 is the **WHO**. This is a Tier I indicator

Table 3.5 sets out the criteria for scoring the dimensions and sub-dimensions of Target 3.9.

**Table 3.5. Performance Measurement Framework for Target 3.9**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 3.9</b> <i>Substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination</i>	Indicator 3.9.1 Mortality rate attributed to the household (indoor) and ambient (outdoor) air pollution.	<b>G3-D4: The scope of tax measures designed to reduce consumption and combustion of fossil fuels</b>	<b>Sub-dimension 1:</b> Extent to which the tax system imposes tax on fossil fuels	A	The tax system imposes taxes on fossil fuels, (i) at the point of sale of fossil fuels for motor vehicles and other transport, (ii) at the point of combustion and emissions, (iii) at the point of refinement and distribution (if present), and (iv) at the point of extraction (if present).

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
				B	The tax system imposes taxes on fossil fuels, (i) at the point of sale of fossil fuels for motor vehicles and other transport, (ii) at the point of combustion and emissions, and (iii) at the point of extraction (if present).
				C	The tax system imposes taxes on fossil fuels, (i) at the point of sale of fossil fuels for motor vehicles and other transport, and (ii) at the point of extraction (if present).
				D	The requirements for a 'B' or 'C' score are not met

### Tobacco Control

In 2005, the WHO Framework Convention on Tobacco Control (FCTC) became the first global health treaty, enacted to compel countries to act on reducing tobacco use. The importance of acting in line with this convention, and of the significant harms to health that result from using tobacco products, led to the inclusion of the implementation of the FCTC as target 3.a within SDG 3. The indicator under this goal is reducing tobacco use (SDG -3.A.1) and pursued by countries principally by adopting key demand reduction measures of the WHO FCTC (Articles 6 - 14). Article 6 of the WHO FCTC reflects implementing high taxes on tobacco products, as a key tobacco cessation intervention. Its importance is reflected by the frequency of higher tobacco taxes as one of the most effective interventions possible<sup>72</sup>.

Tobacco use is seen as one of the most important *risk factors* for NCDs, where a general rule of thumb is that half of all habitual smokers will die as a result of their habit<sup>73</sup>. Since ratifying the WHO FCTC, many countries have increased taxes on tobacco products, significantly contributing to decreases in tobacco use prevalence, and its negative health outcomes<sup>74</sup>. Unlike for other health-harming products, there exists a generally accepted set of targets for tax, where the WHO recommends that at least 75% of the final retail price be made up of tax. While a few countries have reached this threshold, the overall affordability of tobacco products may still increase, if incomes rise faster than inflation, so countries should also be aware to consider linking taxes to at least inflation, if not also average income growth. Also compared to alcoholic beverages, taxes on tobacco products are much more frequently imposed on the quantity of products sold and consumed, as a specific tax. However, certain

72 Hutchinson, B., Brispat, F., Calderón Pinzón, L. V., Sarmiento, A., Solís, E., Nugent, R., ... & Sandoval, R. C. (2022). *The case for investment in tobacco control: lessons from four countries in the Americas*. *Rev Panam Salud Publica*; 46, oct. 2022. Special Issue Tobacco Control.

73 Doll, R., Peto, R., Boreham, J., & Sutherland, I. (2004). *Mortality in relation to smoking: 50 years' observations on male British doctors*. *Bmj*, 328(7455), 1519.

74 Chaloupka, F. J., Yurekli, A., & Fong, G. T. (2012). *Tobacco taxes as a tobacco control strategy*. *Tobacco control*, 21(2), 172-180.

countries may segment tobacco products into different tiers or categories, making some relatively more affordable than others. As with other tax policies, the simpler tobacco taxes are, and the earlier in the distribution chain they can be applied, the better.

## 6.7 Performance measurement framework for Target 3.a

**Custodian agencies** for Indicator 3.a.1 are the **WHO and WHO-FCTC**. This is a Tier I indicator

Table 3.6 sets out the criteria for scoring the dimensions and sub-dimensions of Target 3.a.

**Table 3.6. Performance Measurement Framework for Target 3.a**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 3.a</b> <i>Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate</i>	Indicator 3.a.1 Age-standardized estimates of current tobacco use, tobacco smoking and cigarette smoking	<b>G3-D5: The scope of tax measures designed to reduce the consumption of tobacco products</b>	<b>Sub-dimension 1:</b> Extent to which taxes are imposed to discourage the consumption of tobacco.	A	i. “Appropriately high” levels <sup>75</sup> of excise taxes or other consumption taxes are levied to discourage consumption of tobacco  ii. These taxes are based on the quantity of tobacco, either the number of sticks, or g of tobacco.  iii. There is effective surveillance and control on the recollection of excise taxes, on tobacco products, manufactured in the country, or import duties on those imported to the country.
				B	Same as (i) and (iii) of ‘A’ score
				C	Same as (iii) of ‘A’ score

<sup>75</sup> “Appropriately high” level for cigarettes reflects a target level identified by the WHO being where excise tax on tobacco represents 70% or more of the final retail price of cigarettes, or where all taxes, including excise, make up 75% or more of the final retail price of tobacco.

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
				D	The requirements for a 'C' score are not met.
			<b>Sub-dimension 2:</b> Extent to which tax and customs administrations and law enforcement agencies enforce the payment of import and excise tax on tobacco products	A	<ul style="list-style-type: none"> <li>i. A track and trace system is in place for the sale of tobacco products.</li> <li>ii. Effective monitoring and surveillance on the illicit trade of tobacco products by the program of customs administrations to address illicit trade of tobacco products.</li> <li>iii. The country has signed the Protocol to Eliminate Illicit Trade in Tobacco Products</li> </ul>
				B	<ul style="list-style-type: none"> <li>i. Parts of a track and trace system on tobacco products is in place, such as the use of tax stamps on cigarette cartons.</li> <li>ii. An existing program by customs administrations to address illicit trade of tobacco products.</li> <li>iii. The country has signed the Protocol to Eliminate Illicit Trade in Tobacco Products.</li> </ul>
				C	The country has signed the Protocol to Eliminate Illicit Trade in Tobacco Products
				D	The requirements for a 'C' score are not met.



## Support for research and development of vaccines and medicines

While most of the actions to address disease and promote good health happen focus on changing consumer demand, such as health taxes, several supply side issues are also important. The supply of pharmaceutical products in a country is often thought of as unchangeable, and determined by private, multinational forces. However, the market in this space works far from perfectly, with oligopolistic and monopolistic behavior in many of the drugs that make up essential medicine lists, and many manufacturers moving out of producing certain drugs when these are less profitable than others, often addressing more complex diseases. Dependency on foreign and international pharmaceutical companies was put in the spotlight during the COVID-19 pandemic, where many high-income countries found the lack of manufacturing of vaccines was a factor in supplying these essential goods to their populations. The global supply chain for medical goods depends on a small number of large producers in countries which have comparative advantage in Research and Development (R&D) in drug invention and manufacture. Drug manufacturing may be inefficient in countries where regulatory capacity for drug quality control and licensing are weak and drug research and innovation capabilities are limited or non-existent. However, from the point of view of ensuring health security and the potential provision of essential health commodities, a minimum level of limited productive capacity of essential medical goods, such as surgical masks and generic drugs, is considered crucial. long term tax policy, in this regard can be mobilized to incentivize a nascent pharmaceutical industry, or expansion across borders of existing firms, by providing enhanced deductions and benefits for investment in this area.

### 6.8 Performance measurement framework Target 3.b

**Custodian agencies** for Indicator 3.b.1 are the **WHO and UNICEF**. This is a Tier I indicator

Table 3.7 sets out the criteria for scoring the dimensions and sub-dimensions of Target 3.b.

**Table 3.7. Performance Measurement Framework for Target 3.b**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 3.b</b> <i>Support the research and development of vaccines and medicines for the communicable and non-communicable diseases</i>	Indicator 3.b.1 Proportion of health facilities with a core set of relevant essential medicines available and affordable on a sustainable basis	<b>G3-D6: The scope of tax measures designed to promote the development and production of essential medical goods</b>	<b>Sub-dimension 1:</b> Extent to which taxes policies are implemented to encourage the development and production of essential medical goods at the national level	A	i. a VAT exemption is allowed for medical goods found on the country's essential medicines list.

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
					ii. accelerated depreciation or full expensing for investment in equipment required exclusively for the production of essential vaccine(iii) enhanced tax deductions for expenses related to research and development of pharmaceuticals and health technologies.
				B	Any two of 'A' score
				C	Any one of 'A' score
				D	The requirements for a 'C' score are not met.

DRAFT

## 7. Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

---

**Goal 4 has synergies with Goal 8 (Sustainable Economic Growth and Productive Employment) and Goal 10 (Reducing Inequality), and should be examined together**

### 7.1 Background and good practices

Transforming education financing requires action in three key areas: (1) mobilizing more resources, domestically and internationally, (2) increasing the efficiency and equity of allocations and expenditures, (3) improving education financing data and accountability. There is a crisis in the financing of education that has deepened with Covid. Before the pandemic, it was estimated that up to an additional \$200 billion each year would be required to get the world on track to achieve SDG 4 by 2030;<sup>76</sup> now, that figure is even higher. While urgent action is needed by governments and development partners to increase public spending on education, there is much that the tax system can do to mitigate the crisis.

Economic returns are a key driver of individuals' decisions to invest time and money in education at pre-primary, primary, secondary, and beyond compulsory schooling, as well as of employers' decisions to finance employee training. Taxes have an immediate or direct impact on the incentive to invest in skills formation through seven demand channels:

1. the tax treatment of the direct costs (e.g., tuition fees);
2. the tax treatment of savings (or equity), debt, income and fringe benefits (e.g., employer-paid training) used to finance the investment;
3. the (notional) tax treatment of foregone earnings or profits;
4. the (notional) tax treatment of foregone capital income;
5. the tax treatment of gross financial benefits (higher earnings for individuals and higher profits for employers);
6. tax features that provide insurance against the uncertainty of investment returns; and
7. earmarked taxes on employers or tax-like mechanisms that ensure a minimum level of investment in training.

Taxes also affect the supply of skills through their impact on unemployment, work effort and labor market participation decisions, including those of parents, secondary earners and older workers eligible for retirement. Moreover, inter-jurisdictional differences between tax systems can influence

<sup>76</sup> UN (2023) *Sustainable Development Report 2022*. <https://www.un.org/sustainabledevelopment/progress-report/> and <https://unstats.un.org/sdgs/report/2022/>

the migration of highly skilled workers. Taxes also affect the demand of highly skilled workers either directly, through tax incentives, or indirectly, through the burden of employer social security contributions or through competing tax incentives that encourage alternative investments. The impact of taxes on the supply and demand of skills ultimately affects human capital investment decisions, albeit indirectly, by influencing the expectations of participating in the labor market, finding work that suitably matches the skills acquired, or working full-time.<sup>77</sup>

Brain drain is a serious problem in many developing countries. Resources spent by developing countries in creating high skills is often lost to labor-deficient developed countries. This is a pull factor for brain drain. Sometimes, professionals leave their countries owing to political and religious persecution, indicating push factors at the source. To correct the economic hiatus this exodus leaves a developing country with, some international economists have proposed the imposition of a brain drain tax. A tax on migrating workers compensates the exporting country for loss of the human capital created by its education and skills development programs. Some countries, including the Philippines, which has a very high rate of emigration, have adopted it, though there are exemptions that lessen its impact. However, there are myriad practical complexities associated with enforcing the policy at the origin, or at the destination. Accordingly, this is not proposed in this framework.<sup>78</sup>

## 7.2 Desired outcome

The desired outcome for the Goal 4 that can be supported through tax interventions is enunciated in Targets 4.1, 4.2 and 4.3 and the corresponding outcome indicators in 4.1.1, 4.2.1. and 4.3.1.

**Target 4.1** *By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes*

**Target 4.2** *By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education*

**Target 4.3.** *By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university*

### Investment in education

Higher skill levels lead to higher wages and better employment prospects for individuals, higher productivity, and higher growth rates and tax revenues for governments. While there is broad consensus about the importance of skills for inclusive growth, sharing the costs of skills investments

<sup>77</sup> Torres, C. (2012), "Taxes and Investment in Skills", OECD Taxation Working Papers, No. 13, OECD Publishing, Paris, <https://doi.org/10.1787/5k92sn0qv5mp-en>.

<sup>78</sup> Saibal Kar (2019). "Is It Time for Some Countries to Implement a Brain Drain Tax?" Asian Development Blog. Asian Development Bank. October 2019.

equitably and efficiently between governments, individuals, and businesses is a matter of continued debate. The tax system is a key means through which the returns and the costs of skills are shared between governments and students.<sup>79</sup>

Understanding the role of the tax system in the investment in human capital is important for both tax and policy makers in the education and labor ministries. The impact of the tax system on physical capital is extensively studied and can be a significant factor in shaping tax policy reform. Similar consideration should be given to the impact of taxes on human capital. For instance, a tertiary degree more than pays for itself in terms of future expected after-tax income.

Governments generally recoup the costs of their investment in tertiary education through higher income tax revenue. Estimates suggest that, on average, the extra income tax revenue gained from educating a typical student at the tertiary level amounts to 118 percent of government education costs across the OECD. This is in addition to other returns to skills investments for governments.

*[OECD (2017). Taxation and Skills. OECD tax Policy Studies, No. 24]*

Tax expenditures that encourage skills investments exist in many countries. These include:

- Exemption of scholarship income from PIT or SSC;
- Tax credit for expenses related to post-secondary education and skills;
- Deduction of tuition costs and other educational expenses from PIT;
- Deductibility of interest on student loans from PIT.

Canada predominantly provides tax assistance through tax credits on post-secondary education. Slovakia provides tax credits that reduces parent's tax liability for their children's education.

Some countries, offer relief on student debt in forms other than interest deductibility. In Canada, interest on student loan id eligible for a 15% non-refundable tax credit.

However, they may be poorly designed, regressive, and can have mixed impacts on education outcomes. Direct support for skills and financing through student loans encourages skills investments by both targeting support to those who need it most, while at the same time mitigating the risk of skills investments by providing a form of insurance against such risk. At the same time tax expenditure may be more complex for governments to administer. Many tax incentives are only valuable to those

<sup>79</sup> OECD (2017), *Taxation and Skills*, OECD Tax Policy Studies, No. 24, OECD Publishing, Paris. <https://doi.org/10.1787/9789264269385-en>.

students who have taxable income. As such, they may not be as effective an approach to supporting education as would direct spending. A combination of low rate for labor income taxation at the entry tax bracket and increased government spending for those on low incomes or those who are credit constrained may be appropriate.<sup>80</sup>

### 7.3 Performance measurement framework for Target 4.1

The custodian agency for Indicator 4.1.1 is **UNESCO-UIS** and the partner agency is **OECD**. This is a Tier I indicator

Table 4.1 sets out the criteria for scoring the dimensions and sub-dimensions of Target 4.1.

**Table 4.1. Performance Measurement Framework for Target 4.1**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 4.1</b> <i>By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes</i>	Indicator 4.1.1 Proportion of children and young people (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex	<b>G4-D1: Investment in education</b>	<b>Sub-dimension 1:</b> The extent to which the government undertakes a comprehensive assessment of the level of underinvestment in education and vocational skill development.	A	Every five years, the government: <ul style="list-style-type: none"> <li>i. Conducts a comprehensive assessment of the level of underinvestment in education and vocational skill development.</li> <li>ii. Examines whether education subsidies already provide incentives to raise investment in education to socially optimal levels.</li> <li>iii. Determines whether non-fiscal solutions that directly tackle underinvestment are administratively and politically feasible.</li> <li>iv. Undertakes an economic and social cost-benefit analysis of tax expenditure on education and skill development.</li> </ul>

80 OECD (2017), *Taxation and Skills*, OECD Tax Policy Studies, No. 24, OECD Publishing, Paris. <https://doi.org/10.1787/9789264269385-en>

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
				B	<p>During the last ten years, the government:</p> <ul style="list-style-type: none"> <li>i. Has conducted a partial assessment of the extent of underinvestment in education and vocational skill development.</li> <li>ii. Has examined whether education subsidies already provide incentives to raise investment in education to socially optimal levels.</li> <li>iii. Has undertaken a partial cost-benefit analysis of tax expenditure on education and skill development.</li> </ul>
				C	The government has examined during the last ten years, whether spending subsidies already provide incentives to raise investment to socially optimal levels
				D	The requirements for a 'C' score are not met.
			<p><b>Sub-dimension 2:</b> The scope of incentives for reducing the cost of education for low income student and/ or low income parents of student.</p>	A	<p>The tax system provides for low income individuals:</p> <ul style="list-style-type: none"> <li>i. Exemption of scholarship income from PIT of student.</li> <li>ii. Deduction of tuition costs and other educational expenses from PIT of student.</li> </ul> <p>OR</p>

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
					<ul style="list-style-type: none"> <li>iii. Tax credit in PIT for expenses related to education.</li> <li>iv. Deduction of tuition costs and other educational expenses from PIT for parent's income.</li> <li>v. Deductibility of interest on student loans from PIT.</li> </ul>
				B	The tax system provides any three of (i), (ii), (iii) or (iv) of 'A' score
				C	The tax system provides any two of (i), (ii), (iii) or (iv) of 'A' score
				D	The requirements for a 'C' score are not met.

### Early childhood development

Investing in early childhood education is a solution that creates upward mobility by ensuring all children have the opportunity to build foundations for long-term success in life. Children who receive a high-quality early childhood education are proven to be more likely to earn higher wages, live healthier lives, avoid incarceration, raise stronger families and contribute to society. The benefits of high-quality programs from birth through age five do not end with one child but instead extend to their entire family, now and in the years to come.

Public investment in high-quality early childhood programs, like those included in the Build Back Better Act, is shown to generate long-term cost savings for society by improving education outcomes on a population level, as well as mitigating expensive downstream costs to the childcare system.<sup>81</sup> This may not be feasible in low income countries with scarce resources.

Scaling up families' access to quality childcare has the potential to unlock pathways out of poverty, build human capital and increase equity - all of which are cornerstones of a country's economic growth and productivity.<sup>82</sup> High-quality childcare and preschool programs improve the physical development of babies and young children by helping to identify and support developmental delays and ensure

<sup>81</sup> [Maya Peterson](#) (2021). *New Report from OECD: Supporting Meaningful Interactions in Early Childhood Education and Care*. First Five Years Fund. Washington DC. August 4, 2021

<sup>82</sup> Amanda E. Devercelli and Frances Beaton-Day. *Better Jobs and Brighter Futures: Investing in Childcare to Build Human Capital*. World Bank. December 2020.



proper immunizations. These are critical in helping children reach developmental milestones that will create beneficial health outcomes later in life. Additionally, investment in the socio-emotional and cognitive development of children is well researched and long-lasting. Children who attend high-quality early education programs have fewer teenage pregnancies later in life, reduced engagement in risky health behaviors such as substance abuse, and improved mental and physical health associated with increased employment and higher earnings.<sup>83</sup> They also have increased college graduation rate and increased rate of employment at age 30. It is important that all early education providers are well prepared, but an increase in those standards must also be met with improving existing supports for current staff to advance their knowledge.<sup>84</sup>

Caretaking contributed to mothers' decisions to work part-time or take unpaid leave, but it played an even bigger role in deciding whether to work. Many countries have, therefore, used the tax code to address the problem that childcare expenses typically are linked with a parent's ability to work.

While currently, in the US, a handful of tax credits and deductions support families with children, only the Child and Dependent Care Tax Credit (CDCTC) is designed to help working parents with the cost of work-related childcare expenses. The credit allows families to claim a percentage of dependent care expenses depending on their income. This program may be difficult to replicate in many developing countries. Many governments, however, provide employer tax incentive for childcare. These incentives are used to help working families who are struggling with the rising cost of quality childcare, benefiting the workforce of today – and tomorrow.

## 7.4 Performance measurement framework for Target 4.2

The custodian agency for Indicator 4.2.1 is **UNICEF** and the partner agencies are **UNESCO-UIS, OECD, World Bank, WHO**. This is a Tier II indicator.

Table 4.2 sets out the criteria for scoring the dimensions and sub-dimensions of Target 4.2.

<sup>83</sup> Hannah Guevara (2021). *Childcare & Pre-K are Strategic Economic Investments: Impact on Health*. First Five Years Fund. Washington DC. November 19, 2021.

<sup>84</sup> *OECD (2021). Starting Strong VI: Supporting Meaningful Interactions in Early Childhood Education and Care, Starting Strong, OECD Publishing, Paris, <https://doi.org/10.1787/f47a06ae-en>.*

**Table 4.2. Performance Measurement Framework for Target 4.2**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<p><b>Target 4.2</b> <i>By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education</i></p>	<p><b>Indicator 4.2.1</b> Proportion of children aged 24-59 months who are developmentally on track in health, learning and psychosocial well-being, by sex</p>	<p><b>G4-D2: Early childhood development</b></p>	<p><b>Sub-dimension 1:</b> The extent of tax support provided to help low income parents in reducing their cost of childcare for their children under five years.</p>	A	<p>The tax system encourages investment in childhood development by providing:</p> <ul style="list-style-type: none"> <li>i. Tax credits or deductions to fully compensate work-related childcare expenses incurred by low-income families with children under the age of five.</li> <li>ii. Deductions as business expenses to employers who provide childcare facilities for children of their employees.</li> </ul>
				B	<p>The tax system encourages investment in childhood development by providing:</p> <ul style="list-style-type: none"> <li>i. Tax credits or deductions to partially compensate work-related childcare expenses incurred by low-income families with children under the age of five.</li> <li>ii. Deductions as business expenses to employers who provide childcare facilities for children of their employees.</li> </ul>
				C	<p>The tax system provides any one of (i) or (ii) of 'B' score.</p>
				D	<p>The requirements for a 'C' score are not met.</p>

**Vocational training**

Taxation is one among a range of influences on skills formation and utilization. Tax policy is, therefore, only one component of the whole-of-government approach to developing successful skills policies. As such, the tax treatment of human capital should be analyzed within the broader context of fiscal policy and the role of government in steering skills formation. For example, public funding for education can partly or fully offset any possible tax disincentives to invest in education. At the same time, tax progressivity can help mitigate the possible regressivity of education subsidies and generate revenues to help finance these subsidies. Regarding the role of government, many sources of underinvestment in skills lie outside the tax system and, as such, tax solutions for them may not be the most efficient.<sup>85</sup>

Creating incentives to invest in skills across society is a key component in lifting wage and productivity levels, and in ensuring that growth in the coming years is inclusive and sustainable. Tax and spending policies need to be designed in a coherent manner in order to encourage skills investments. Policy makers need to analyze tax incentives, to design effective skills policies and to create inclusive growth. Tax expenditures that reduce the cost of skill development are a financial incentive for investment in new/innovative skills.<sup>86</sup>

However, before concluding that a favorable tax treatment of human capital is appropriate, it is important to assess the extent of underinvestment, examine whether spending subsidies already provide or could provide incentives to raise investment to socially optimal levels, and determine whether non-fiscal solutions that directly tackle underinvestment are administratively and politically feasible.

## 7.5 Performance measurement framework for Target 4.3

**The custodian agency** for Indicator 4.3.1 is **UNESCO-UIS** and the **partner agencies** are **OECD, Eurostat, ILO**. This is a Tier II indicator.

Table 4.3 sets out the criteria for scoring the dimensions and sub-dimensions of Target 4.3.

85 Torres, C. (2012), “*Taxes and Investment in Skills*”, OECD Taxation Working Papers, No. 13, OECD Publishing, Paris, <https://doi.org/10.1787/5k92sn0qv5mp-en>.

86 OECD (2017), *Taxation and Skills*, OECD Tax Policy Studies, No. 24, OECD Publishing, Paris. <https://doi.org/10.1787/9789264269385-en>.

**Table 4.3. Performance Measurement Framework for Target 4.3**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<p><b>Target 4.3</b> By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university</p>	<p>Indicator 4.3.1 Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex</p>	<p><b>G4-D3: Vocational training</b></p>	<p><b>Sub-dimension 1:</b> The scope of incentives provided to employees and employers to reduce the cost of skill enhancement</p>	A	<p>The tax system provides:</p> <ul style="list-style-type: none"> <li>i. Deduction as business expenses for employers providing training workshops to employees for skill development.</li> <li>ii. PIT deduction or tax credit for tuition costs incurred by the low income employees for their own skill development.</li> <li>iii. PIT deduction of interest on student loans taken by any low income employee to meet the cost of investment in skill development.</li> </ul>
				B	The tax system provides any two of (i), (ii) or (iii) of 'A' score
				C	The tax system provides any one of (i), (ii) or (iii) of 'A' score
				D	The requirements for a 'C' score are not met.

## 8. Goal 5: Achieve gender equality and empower all women and girls

---

### 8.1 Background and good practices

Gender equality in economic opportunities and outcomes is critical to inclusive and sustainable growth. Though normative frameworks are in place and much progress has been made in the last half century, women and underrepresented groups continue to be disadvantaged by almost every global measure and gender gaps remain significant on a global scale, due to gendered social expectations and stereotypes, legal restrictions or social norms barriers to women's access to public services such as education, healthcare, financial services, access to property and asset ownership, and the labor force. Promoting gender equality has been shown to play an important role in boosting economic productivity and growth, enhancing economic resilience, and reducing overall income inequality.<sup>87</sup>

### 8.2 Desired outcome

The desired outcome for the Goal 5 that can be supported through tax interventions is enunciated in Targets 5.1, 5.5, 5.a and 5.c the corresponding outcome indicators in 5.1.1, 5.5.2, 5.a.2, and 5.c.1

**Target 5.1** - *End all forms of discrimination against all women and girls everywhere*

**Target 5.5** - *Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life*

**Target 5.a** - *Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws.*

**Target 5.c** - *Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels.*

---

87 Hsieh, C.-T., E. Hurst, C.I. Jones, and P.J. Klenow, 2019, "The Allocation of Talent and U.S. Economic Growth," *Econometrica*, 87: 1439-1474

## How taxation affects gender equality

Taxation affects gender equality through its impact on incomes, incentives for labor-force participation, entrepreneurship, consumption, saving, investment, and other wealth decisions.

The OECD's report on "Tax Policy and Gender Equality" covers 43 economies from G20 and OECD member economies. It finds that over the last several years, more than half of the countries covered (22) have implemented tax reforms with gender equity as a key rationale. These include enhanced tax credits for mothers (Israel), introduction of individual taxation of labor income (Norway, Sweden), reduced VAT rates for feminine hygiene products (Belgium, United Kingdom, France, Iceland, Kenya, Mexico, South Africa). At the same time, economies such as Argentina, included gender considerations into tax policy design to reduce existing biases, while Indonesia increased flexibility of work arrangements including parental leave.

While some progress has been made regarding tax and gender, mostly in higher income countries, substantial efforts are still required to reduce gender biases embedded in tax systems around the world. It is imperative to examine closely whether these tax incentives such as, for instance, reduced rate for menstrual hygiene products benefit low income women at all. A recent study by the African Tax Administration Forum (ATAF) finds little to no evidence that tax policies in member countries were developed with any concern for their impact on inequality between the sexes.<sup>88</sup>

Taxation can impact gender outcomes in different ways, notably through tax policies, laws and administrative procedures that may give rise to explicit or implicit gender biases and in how tax revenue is allocated to gender responsive budget programs and public services.<sup>89</sup> The STF focuses on the impact of taxation on gender equality. Specific examples include (i) gender bias in tax policy concerning labor income, for example the progressivity of PIT with explicit bias against women when the tax units require couples to file jointly where the effective tax rate of the second earner (usually a woman) is higher than that of the primary earner (ii) gender issues in CIT and transnational corporate tax practices; (iii) consumption taxes such as VAT with implicit bias against women because of assumptions towards women's roles and identities in society, and disregard for how incomes are earned and spent; (iv) gender and capital taxation considering bias in property ownership, wealth and inheritance, because women often have limited rights to own and inherit property; and (v) gender biases (conscious and unconscious) in tax administration staff and revenue authorities, and lack of capacities to deliver gender responsive tax policies including challenges of digitalization.

<sup>88</sup> ATAF (2022). 38 countries in Africa are members of ATAF.

<sup>89</sup> JNCW; UN WOMEN. (2019). *Fiscal Policy, Taxation and Gender Equality in Jordan*. The Jordan National Commission for Women and UN Women. <https://women.jo/en/node/7907>

### Reporting and evaluation of gender equality (gender disaggregated data)

In order to have informed decision making to address gender inequalities linked to taxation, there is need to improve the collection of gender-disaggregated data on taxation that can be linked to property, business and capital ownership, and on capital ownership, to facilitate deeper analysis of the linkages and actual and potential impacts of taxation on gender equality. Any kind of gender equality analysis of tax policies and systems requires, at a minimum, data that is disaggregated by gender, age, and social and economic status. For instance, income tax returns should include a field for gender. It is important to also have access to data that is disaggregated by other relevant social relations or demographic factors such as location (urban or rural), race and religion and ethnicity. These additional classifications beyond sex and economic status can help to address any discriminations in tax policy or revenue administration that results from falling under more than one marginalized classification. When referring to socio-economic status it is recommended to consider wealth quintile or income. However, there are other indicators, such as level of education, that are also important to consider when exploring disaggregated data.<sup>90</sup> In order to arrive at an effective assessment of the impact of tax and fiscal policies, the collection and availability of more and better gender disaggregated data by governments is crucial. Ex ante and ex post gender equality impact assessments should be institutionalized for any new tax or tax policy reform. Impact on gender equality should be a standard feature of reporting and evaluations of tax policies and systems. Where capacity for such impact analysis is weak in a country, such analysis can perhaps be provided by development partners as technical assistance.

### Explicit and implicit gender bias in the tax system

Tax systems can affect men and women differently. Tax systems and taxation have gendered implications, affecting men and women differently with both explicit and implicit gender bias. Explicit gender bias occurs where tax provisions are legally linked to gender. Explicit gender bias occurs where tax provisions are legally linked to gender.<sup>91</sup> Provisions in the tax code, or in formal administration requirements, that explicitly reference gender, often worsen inherent gender biases present in society.

For instance, the taxpayer category “Hindu Undivided Family” in the Indian Income Tax Act, explicitly identifies a senior male as the head of the joint family. Some tax provisions have a lower tax rate for married men or tax credits available only for men. Another example, in several countries, is stipulating male heads of households as the tax filer.

Implicit bias arises where taxes and tax systems interact with differences in underlying patterns of economic behavior associated with gender roles and social values and expectations. In OECD

<sup>90</sup> ESCR-NET (2022) *Collective Position on Data for Economic, Social, and Cultural Right*

<sup>91</sup> OECD (2022), *Tax Policy and Gender Equality: A Stocktake of Country Approaches*, OECD Publishing, Paris, <https://doi.org/10.1787/b8177aed-en>.

countries, women and men are not treated differently because of their sex, but because the tax legislation discriminates against certain patterns of behavior that may be more closely associated with one gender than the other. One obvious example relates to the impacts of the tax system on second earners, given that second earners are predominantly women. Implicit bias can also manifest in informal taxation or user fees on services used more by women, or in low rates of taxation on capital income or wealth, which are predominantly held by men. Furthermore, investment incentives and other tax expenditures in the form of rate reductions, exclusions, credits and preferential rates often favor male-dominated industries, resulting in a bias against women, with the added complication that they are difficult to track and measure, thereby undermining the transparency of the tax system.

Tax policies that worsen explicit and implicit gender inequalities should be removed or modified, while policies aimed at reducing explicit and implicit gender inequalities should be promoted. The same holds true at the level of the tax administration, where procedures and services can be better tailored to the needs of women. This can range from basic facilitation measures such as convenient and consistent office hours of tax offices to sophisticated compliance improvement programs that aim to empower female taxpayers through digitalization.

## **Reducing gender inequality through taxation of labor, corporations and consumption.**

### **a. Gender and taxation of labor (PIT)**

Taxation of labor income is an important aspect of taxation approached from a gender perspective, because it is most directly linked to family and labor supply decisions, which in turn have a major impact on the incomes and security of women. Average incomes of women are lower than those of men in most countries, with women earning, on average, 20 percent less than men in gross terms.<sup>92</sup> While policy interventions other than tax policy could more directly address these issues, tax policy plays an important role by facilitating women's access to labor market. IMF paper on gendered taxes<sup>93</sup> considers implicit and explicit gender biases and corrective taxation of labor and capital.

The key features of the tax system that influence decisions by individuals and households include the progressivity of the system, the unit of taxation, and the definition of the tax base, notably with respect to the treatment of costs related to participating in paid employment. Improving progressivity of the tax system, reducing disincentives for low-income earners to work, broadening tax bases to include capital income can help reduce gender inequality. The progressivity of the income tax system can reduce gender inequality by providing stronger work incentives to women at the low end of the income distribution.

Tax unit rules negatively affect women because they determine who owns women's 'fiscal space' for tax purposes. When women cannot use their own fiscal space, they can end up paying higher taxes on their incomes than single women would pay, which in effect means that both tax and benefit

92 Ibid.

93 Coelho, Maria, Aieshwarya Davis, Alexander Klemm, and Carolina Osorio Buitron. February 2022. "Gendered Taxes: The Interaction of Tax Policy with Gender Equality," IMF Working Paper No. 22/26.



provisions can actually impose after-tax penalties on married women income earners as second earners.

From a labor supply perspective, taxing household as a unit generally raises tax rates for secondary earners and lowers them for primary earners. Countries often mitigate this household taxation effect by doubling the threshold for each income bracket (e.g., Germany) to take into account the fact that two income-earners are taxed together. Other countries may also raise the threshold by less than double (e.g., United States), which can lead to marriage penalties for some incomes. On the other hand, taxing spouses separately leads to issues such as which spouse gets the deduction for children's expenses or charitable contribution.

On average, social security entitlement affect women differently than men for two reasons.

The first source of differential gender impact is the fact that women's incomes are, on average, lower than men's. Thus, personalizing income security entitlements by tying them to individual earned incomes and worker contributions over individual workers' lives increases women's long-term economic inequality, because they will accumulate smaller entitlements and often over a shorter paid work life.

The second source of the differential gender impact of SS entitlement arises from benefit rules that may cover workers' spouses or dependents. When worker's income security plans cover their spouses, the covered spouse may opt to concentrate their time on unpaid work in order to qualify for spousal benefits via the employed spouse. Thus, criteria analysis would be necessary to highlight these types of gender inequalities and the fact that earnings disincentives can be overcome with careful policy design.

## b. Gender and corporate taxation

The economic realities of women's lives most frequently discourage women from forming incorporated businesses and thus the incorporated business sector continues to be a 'man's world' and is mostly blind to gender equality considerations. This structural gender difference produces different levels of tax liabilities, after-tax incomes, accumulated capital, and wealth for those who own either incorporated or unincorporated businesses. Overall, the after-tax financial advantages of corporate tax systems accrue markedly to men. Corporate tax rates have significantly reduced over the years from an average of 38% in 1993 to an average of 23.37% in 2022.<sup>94</sup> Ownership, control, management, and multi-national corporations (MNC) supply chains are preponderantly in male hands. MNC tax avoidance practices intensify gendered imbalances in wealth worldwide and reduce home country corporate tax revenues. Furthermore, entrepreneurs operating smaller businesses may be discouraged from incorporating or growing their businesses when tax compliance procedures are

94 <https://taxfoundation.org/publications/corporate-tax-rates-around-the-world/>

complicated and the tax administration does not offer adequate support services, which produces a bias against formalization of women entrepreneurs.

### c. Gender and consumption taxes

For consumption taxes, such as sales tax, value-added tax (often called goods and services tax (GST) in Commonwealth countries), and excise, there is a relationship between externalities and differences in consumption patterns across genders and their interaction with taxes, for example, on female hygiene products and excise taxes.

VAT is an indirect tax levied on the value added by producers, suppliers and service providers at each point in a supply chain. On whom the tax burden falls depends on the price elasticity of demand and supply of the goods concerned. For most inelastic essential goods, usually consumed by the poor, the burden falls on the consumer. For more elastic luxury goods, the burden falls mainly on the consumers if they are internationally traded, and on producers, if they are domestically produced. Commonly consumed items such as basic foods or domestic fuel may be taxed at a low VAT rate to relieve the tax burden on the poor. In many countries basic products used both by men and women do fall into this category but products (like menstrual hygiene products) used by women do not. However, it has been argued that exemption of menstrual hygiene products benefits richer women.<sup>95</sup> It is, therefore, important to conduct cost benefit and incidence analysis before VAT exemption is considered for women's hygiene products. A better option is to allow poor women (below a certain threshold) to claim credit for VAT paid on these products. This will limit the benefit to poorer women.

VAT is commonly thought to be regressive, meaning that poorer people pay a higher proportion of their income in tax. This is because poor people generally spend a larger proportion of their income on basic needs than the rich. Since women make up more of the poor than men, there is a concern that under consumption taxes, unless basic goods are zero-rated or have a lower rate, the burden fall disproportionately on women resulting in a reduction in their purchasing capacity, and impairs their ability to invest in education, nutrition, living conditions and health care, to acquire capital assets, to carry on businesses profitably, and attain economic security. However, in many developing countries, where the poor buy goods in informal markets outside the VAT scheme, VAT can be considered progressive. Also, luxury goods taxed at a higher than standard rate can be progressive. There are exceptions to this. Cosmetics is often viewed from a sociological point of view as being a luxury, however a tax on cosmetics is often regressive since poor women tend to spend a lot more on cosmetics as a percentage of their disposable income.<sup>96</sup>

95 Feria, Rita de la. *Why We Should All Worry About the Abolition of the Tampon Tax*. Oxford University. Centre for Business Taxation. March 2021

96 Abshari, Z.; Jenkins, G.P.; Kuo, C.-Y.; Shahee, M. *Progressive Taxation versus Progressive Targeted Transfers in the Design of a Sustainable Value Added Tax System*. *Sustainability* **2021**, *13*, x. <https://doi.org/10.3390/>

### 8.3 Performance measurement framework for Target 5.1

The custodian agency for Indicator 5.1.1 is the **UN Women, World Bank, OECD Development Centre** and the **Partner agency** is **OHCHR**. This is a Tier II indicator.

Table 5.1 sets out the criteria for scoring the dimensions and sub-dimensions of Target 5.1.

**Table 5.1 Performance Measurement Framework for Target 5.1.**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 5.1</b> <i>End all forms of discrimination against all women and girls everywhere</i>	5.1.1 Whether or not legal frameworks are in place to promote, enforce and monitor equality and non-discrimination on the basis of sex	<b>G5-D1: Reporting and evaluating gender equality</b>	<b>Sub-dimension 1:</b> Extent of gender-based reporting and analysis.	A	<ul style="list-style-type: none"> <li>i. There is routine (every 3 to 5 years) reporting and evaluation of the impact of tax policy on gender inequality.</li> <li>ii. Gender analysis is routinely (every 3 to 5 years) conducted for the design, implementation and monitoring of tax policy choices</li> <li>iii. The relevant institution has in place a systematic gender disaggregation data system.</li> <li>iv. The relevant institution maintains gender-disaggregated data on property ownership in two major cities.</li> <li>v. The relevant institution maintains gender-disaggregated on consumption patterns</li> <li>vi. The relevant institution maintains gender-disaggregated data on taxation...</li> </ul>

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
				B	<ul style="list-style-type: none"> <li>i. Any two of A (i) to A (iii).</li> <li>ii. Same as A (iv)</li> </ul>
				C	<ul style="list-style-type: none"> <li>i. Any one of A (i) to A (iii)</li> </ul>
				D	Gender-disaggregated data does not exist and there is no gender analysis for designing or reforming tax policies .
		<b>G5-D2: Tax policy measures to reduce gender inequality</b>	<b>Sub-dimension 1:</b> Extent of proactive tax policy measures taken to reduce gender inequality in relation to taxation.	A	<ul style="list-style-type: none"> <li>i. Relevant institutions have a mechanism in place to conduct gender impact assessment for any review or new tax policy.</li> <li>ii. The authorities promote reducing implicit gender inequalities.</li> <li>iii. There are no tax provisions that explicitly perpetuate or worsen gender.</li> </ul>
				B	<ul style="list-style-type: none"> <li>i. Same as A (ii).</li> <li>ii. Same as A (iii).</li> </ul>
				C	<ul style="list-style-type: none"> <li>i. Same as A (ii).</li> </ul>
				D	No effort has been made in the last five years to remove tax provisions with explicit gender inequality.

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
		<b>G5-D3: Reducing gender inequality through taxation of labor and consumption and corporate taxation</b>	<b>Sub-dimension 1: Reducing gender inequality through labor taxation.</b>	A	<ul style="list-style-type: none"> <li>i. Progressive Personal Income tax (PIT) rates are used.</li> <li>ii. Tax provisions allow credit for childcare costs to low income families.</li> <li>iii. Tax provisions allow tax credits for working mothers.</li> <li>iv. In countries where household is taxed as a unit, the threshold at every tax bracket is at least double that for individuals.</li> <li>v. Lowest PIT marginal income tax rate is above poverty line so that those below the poverty line are exempted fully from personal income taxation.</li> <li>vi. Social contribution taxes in terms of both contributions and benefits are fully individualized</li> </ul>
				B	<ul style="list-style-type: none"> <li>i. Same as A (i).</li> <li>ii. Same as A (ii).</li> <li>i. Same as A (iii)</li> <li>i. Any two of (iv), (v) and (vi)</li> </ul>
				C	<ul style="list-style-type: none"> <li>i. Same as A (i)</li> <li>ii. Either of A (ii) and A (iii)</li> <li>i. Any one of (iv), (v) and (vi)</li> </ul>
				D	Criteria for a C score is not met.

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
			<b>Sub-dimension2:</b> Reducing gender inequality through consumption taxes.	A	For poor households, i. There is VAT credit or tax exemption for female hygiene products. ii. There is VAT credit or tax exemption for infant food products. iii. There is VAT credit or tax exemption for childcare services.
				B	Any two of A (i), A (ii) and A (iii)
				C	Any one of A (i), A (ii) and A (iii)
				D	There is no gender-specific consumption tax exemptions.
			<b>Sub-dimension 3:</b> Reducing gender inequality through corporate taxes	A	i. Existing tax expenditures do not have gender bias (evidence will involve a review of tax expenditures with a gender lens). ii. Existing provision of tax incentives to corporations that increase the participation of women in employment. iii. Existing provision of tax incentives to corporations that increase the role of women in management. iv. Provision of tax incentives to corporations that increase the role of women in directorships.

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
					v. Provision of tax incentives to corporations that increase procurement from women-owned businesses
				B	Any 3 of A (i), A (ii), A (iii) and A (iv)
				C	Any 2 of A (i), A (ii), A (iii) and A (iv)
				D	Criteria for a C score is not met.

### Addressing gender inequality in tax policy and tax administration decision making roles.

Gender responsive tax institutions are a precondition for ensuring tax policies contribute to advancing gender equality and women’s economic empowerment. This requires vision, innovation, and a commitment to gender equality on the part of policy and institutional leaders and ensuring the equitable and meaningful participation of both women and men in decision making about tax policies. On the opposite, data from OECD countries indicates that women remain proportionally underrepresented in executive positions within tax administrations, and therefore women’s voices tend not to be heard and their experiences not to be considered when taxation systems are designed, implemented, analyzed, or evaluated and tax policy decisions.

Besides, for tax institutions to be able to contribute to gender equality, institutional gender capacities are needed in terms of planning, budgeting, institutional architecture, knowledge and skills. Building the capacities of public administrations for integrating a gender perspective in their work and their institutional organizations promotes more effective and efficient tax policies, addressing direct and indirect bias and ensuring higher redistributive impact, thus expanding capacities to contribute to the 2030 Agenda.<sup>97</sup>

There is also ample scope for gender considerations at the level of the tax administration. This includes the development of female-friendly taxpayer services (depending on cultural contexts), dedicated efforts to educate female entrepreneurs and taxpayers to promote tax compliance and developing gender-sensitive communications strategies and outreach programs. Commitments to gender equality should be an integral part of the tax administration’s strategic and management

<sup>97</sup> Michael Mwondha, et al. *Why African Tax Authorities Should Employ More Women: Evidence from the Uganda Revenue Authority*. International Centre for Tax & Development. Working Paper85. November 2018

framework, reflected in corporate strategic plans and reform plans. Tax administrations should also proactively seek opportunities to cooperate with women and feminist organizations, chambers of commerce and other organizations that work on facilitating empowerment of female entrepreneurs. Innovative use of gender-disaggregated data collected by the tax administration can also support a more gender-responsive tax system, for example yielding insights into the drivers of female taxpayer compliance which subsequently motivate the development of new taxpayer services. Experience shows that gender responsive public institutions are better able to develop strategic alliances and effective collaboration with civil society and women’s organizations, which is also instrumental for achieving SDG goals and targets.

For tax institutions to effectively embed gender equality into its service delivery, they also need to ‘walk the talk’, improving their institutional working environments by eradicating discriminatory and harmful practices, ensuring a zero tolerance to gender-based violence and sexual harassment, and promoting work and life balance for all staff, contributing to change stereotypes linked to women’s and men’s responsibilities on care and domestic work. For example, ensuring the adequate implementation of legal provisions on maternity and paternity leave together with other measures to facilitate work and life balance, remove disincentives for women to return to work after childbirth, and contribute to incentivize men’s responsibilities in family care work. Likewise, allowing childcare costs as a deduction for working mothers removes part of the burden of high childcare costs and encourages women to join the workforce. In many countries where multi-generational households are common, it is easier for women to access the labor market if grandparents take care of grandchildren.

## 8.4 Performance measurement framework for Target 5.5

The custodian agency for Indicator 5.5.2 is the **ILO**. This is a Tier I indicator.

Table 5.2 sets out the criteria for scoring the dimensions and sub-dimensions of Target 5.5.

**Table 5.2 Performance Measurement Framework for Target 5.5.**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 5.5</b> <i>Ensure women’s full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life</i>	5.5.2 Proportion of women in managerial positions	<b>G5-D4: Tax administration and the MOF as an example of gender equality ensure enabling working environments</b>	<b>Sub-dimension 1:</b> Extent of measures taken by the tax administration to improve gender equality in the workplace.	A	Relevant institutions such as tax administration and ministry of finance: i. Implement actions to narrow any existing the salary gap between men and women for the same job.



Target	Indicator	Dimension	Sub-dimension	Score	Criteria
					<ul style="list-style-type: none"> <li>ii. Ensure that at least 40% share of women occupy senior decision-making positions: secretaries, sub secretaries, directors, vice directors, and institutional and inter institutional committees.</li> <li>iii. Have a Zero tolerance policy and protocol to prevent and address gender based violence and sexual harassment in the workplace is in place.</li> <li>iv. Have a policy/plan of action produced in a participatory way, to favor work and life balance, including promoting men's responsibility in unpaid care and domestic work.</li> <li>v. Ensure equal opportunities for recruitment and selection, professional development are formally and practically guaranteed, through gender mainstreaming or affirmative actions.</li> </ul>
				B	Same as A (i), A (ii), A (iii) and A (iv).
				C	Same as A (i), A(ii) and A (iii).
				D	The criteria for a C score are not met.
			<b>Sub-dimension 2:</b> Extent of gender capacities in tax institutions to enable gender equality	A	<ul style="list-style-type: none"> <li>i. The gender unit or team has an allocated budget attached to its work plan and reports directly to high level institutional authorities</li> </ul>

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
					<ul style="list-style-type: none"> <li>ii. The tax administration has approved and implements a gender responsive internal and external institutional communication policy.</li> <li>iii. The tax administration has a gender unit or team with specialized human resources, advising gender mainstreaming in tax policies.</li> <li>iv. Decision-making and institutional staff in charge of designing, implementing and/or monitoring tax policies/ programs, have participated in gender capacity trainings in the last 12 months.</li> </ul>
				B	Any three criteria on 'A' score
				C	Any two criteria on 'A' score
				D	The criteria for a C score are not met.
			<b>Sub-dimension 3:</b> Extent of which the tax administration engages with other organizations working on gender equality for informing tax policies development and implementation	A	<ul style="list-style-type: none"> <li>i. Tax administration and MOF have held at least one meeting in the last 12 months with civil society, trade unions, women and feminist organizations, to which it reports its efforts on advancing gender responsive tax policies.</li> <li>ii. The MOF and tax administration are engaged with civil society partners (centers for women's studies, cooperation, research, academic, non-governmental organizations, especially women's organizations), in initiatives for advancing gender responsive tax policies</li> </ul>

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
					iii. The MOF and tax administration are engaged with other public institutions in initiatives for advancing gender equality
				B	Same as A (ii), A (iii)
				C	Same as A (ii).
				D	The criteria for a C score are not met.

### Gender and taxation of capital/wealth

Empirical data shows that countries with relatively low female shares of capital income and wealth also tend to tax property and inheritances particularly lightly, creating a gender bias in favor of men, since most wealth and assets are held by men.<sup>98</sup> Furthermore, when property, wealth and capital income taxes are low, VAT and PIT rates, including at the lower end of the income distribution, may need to be set higher in order for the government to achieve its overall revenue objective, creating yet another tax bias against women. This bias is further magnified when corporate income tax rates are low as men are also more likely to own companies.

Tax policy measures to reduce gender inequality in property ownership have been used in some countries. These include rebate in annual property tax for female owners. Likewise, some countries allow rebate on stamp duty, inheritance tax or other forms of property transfer tax if a property is transferred to a woman. Incentives related to property taxes and property transfer taxes or stamp duty, have encouraged female property ownership (e.g., India).<sup>99</sup>

## 8.5 Performance measurement framework for Target 5.a

The custodian agency for Indicator 5.a.2 is the **FAO** and the partner agencies are the **World Bank and UN Women**. This is a Tier II indicator.

Table 5.3 sets out the criteria for scoring the dimensions and sub-dimensions of Target 5.a.

<sup>98</sup> <https://taxfoundation.org/publications/corporate-tax-rates-around-the-world/>

<sup>99</sup> Awasthi, Rajul, Katie Pyle, Namita Aggarwal, Parvina Rakhimova. 2022. *Gender-based discounts of taxes related to properties: Role in encouraging female property ownership. A case study of Indian states and cities*. World Bank Working Paper. World Bank.

**Table 5.3. Performance Measurement Framework for Target 5.a.**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 5.a</b> <i>Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws</i>	5.a.2 Proportion of countries where the legal framework (including customary law) guarantees women's equal rights to land ownership and/or control	<b>G5-D5: Reducing gender inequality through property ownership</b>	<b>Sub-dimension 1:</b> Reducing gender inequality through rebate in capital ownership.	A	i. There is a rebate on stamp duty, for property transferred to a woman. ii. There is a rebate in the annual property tax for property owned by women. iii. There is a rebate on inheritance tax for property transferred to a woman.
				B	Any two of the criteria for 'A' score.
				C	There is rebate in either annual property tax OR in stamp duty OR inheritance tax for women property owners.
				D	There is no rebate on annual property tax OR stamp duty (or other property tax) for women property owners.

### Gender sensitive taxation of the informal sector

Informal workers and businesses do not pay income tax in the same way as formal ones. Informal businesses also do not pay VAT to the government because they are not registered with the government. But they do pay VAT on inputs they purchase, without any chance of a refund (which is available only to VAT-registered companies). They are taxed through fees, charges and licensing costs and presumptive taxes (based on turnover).

Often these taxes and fees fail to take account of one another, and overlap, resulting in the payer being taxed multiple times. They tend to be based on very general estimates and are commonly flat rated (e.g., market taxes and fees levied on market stallholders), which usually produces regressive results. Because a higher proportion of women than men work in the informal sector, taxes on the informal sector fall on women more than men.

The significant size of the informal sector in developing countries in the broader economy particularly presents a significant opportunity for revenue generation. The expansive informal sector also means

a narrow tax base with very little revenue potential and high cost of collection and increases risk for low compliance since governments are forced to impose tax on a very smaller section of taxpayers. The formalization of the informal sector for tax purposes would create or strengthen the governance and accountability mechanism between the state and the formalized business since they can be able to demand services in return. However, informal sector taxation has a risk of negatively impacting smaller firms and make tax system more regressive impacting on women the most.

## 8.6 Performance measurement framework for Target 5.c

**Custodian agencies** for Indicator 5.c.1. are the **UN Women, OECD and UNDP**. This is a Tier II indicator.

Table 5.4 sets out the criteria for scoring the dimensions and sub-dimensions of Target 5.c.

**Table 5.4 Target 5.c. Performance Measurement Framework**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 5.c</b> <i>Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels</i>	5.c.1 Proportion of countries with systems to track and make public allocations for gender equality and women's empowerment	<b>G5- D6: Reducing gender inequality using gender sensitive tax and fiscal policies for the informal sector</b>	<b>Sub-dimension 1:</b> Reducing gender inequality by fair taxation of the informal sector.	A	Country has in place <ol style="list-style-type: none"> <li>i. Gender responsive tax policy for the SME sector and cross border traders.</li> <li>ii. Simplified presumptive tax regime for SME and small traders</li> <li>iii. The tax authorities provide taxpayer education and outreach targeted to women entrepreneurs to build their capacity for voluntary tax compliance.</li> </ol>
				B	Any two from A (i), A (ii) and A (iii)
				C	Any one from A (i), A (ii) and A (iii)
				D	The criteria for a C score are not met.



## 9. Goals 6: Ensure availability and sustainable management of water and sanitation for all

---

### 9.1 Background and good practices

Target 6.3 does not directly lend itself to tax policy intervention. Indirectly, the issue of environmental degradation is dealt with in Chapters 11, 17 and 19.

DRAFT

## 10. Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all

---

**Goal 7 has synergies with Goal 13 (Climate Change) and should be examined together**

### 10.1 Background and good practices

Energy taxes and the elimination of harmful (//) is key to achieving the triple objectives of decarbonization, domestic revenue mobilization, and access to affordable energy. Developing and emerging economies battling to recover from the COVID-19 crisis with much lower tax revenues than advanced economies would benefit from policy mix comprising of an upstream carbon tax, combined with a targeted energy tax at the distributor level, the elimination of associated fossil fuel subsidies and targeted support to low-income groups. Well-designed energy and carbon taxes can strengthen efforts to improve domestic revenue mobilization. While the revenue potential varies across countries, countries could generate revenue equivalent to around 1% of GDP if they set carbon rates on fossil fuels equivalent to EUR 30 per tonne of CO<sub>2</sub>.<sup>100</sup>

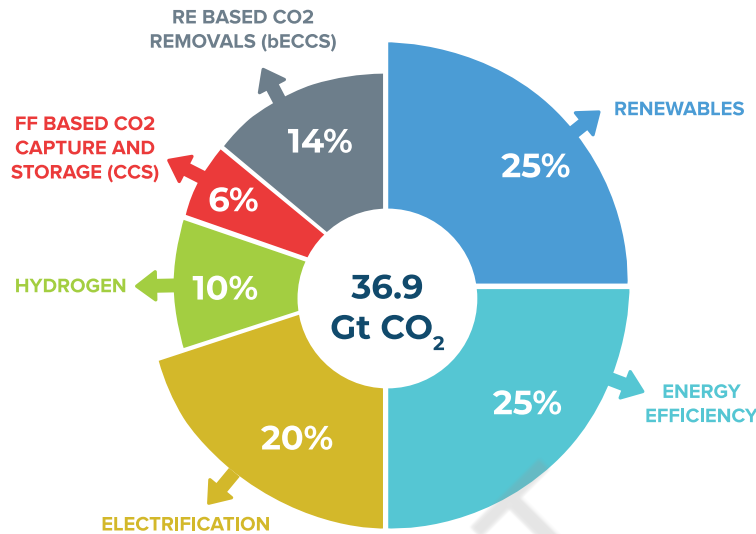
Fossil fuels used for heating, cooking and lighting are often taxed at low rates or subsidized in many countries to support poor households. This, however, weighs on public finances, and in some cases can encourage excessive fuel use. Reducing harmful fossil fuel subsidies which tend to benefit wealthier consumers and improving tax design could provide additional revenues for more targeted support to enhance energy access and affordability. The Glasgow Climate Pact emanating from COP26, required the phasedown of unabated coal power and phase-out of inefficient fossil fuel subsidies, in particular, on household cooking fuels, such as kerosene.<sup>101</sup> It should be noted that there are important trade-offs to be taken into account in evaluating and implementing policy options. Geography, level of economic development, population size, resource endowments and the regulatory framework/operation of energy markets will influence the choice of appropriate policy instruments and other interventions.

The International Renewable Energy Agency, IRENA, considers that energy transition depends on a transformation of the global energy sector from fossil-based to zero-carbon sources by 2050. This can be achieved by the very ambitious goal of reducing energy-related CO<sub>2</sub> emissions to limit global temperature to within 1.5° of pre-industrial levels. IRENA's 1.5°C pathway offers a roadmap for accelerating the global energy transition in line with the goals of the Paris Agreement. This strategy outlines six approaches which are illustrated in Figure 4 below.

100 OECD (2021). *Taxing Energy Use for Sustainable Development: Opportunities for energy tax and subsidy reform in selected developing and emerging economies*. January 2021. OECD. <https://www.oecd.org/tax/tax-policy/taxing-energy-use-for-sustainable-development.pdf>

101 UNFCCC, Report of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement on its third session, held in Glasgow from 31 October to 13 November 2021, FCCC/PA/CMA/2021/10/Add. 1, Mitigation, IV, para. 36, 8 March 2022, available at: [https://unfccc.int/sites/default/files/resource/cma2021\\_10\\_add1\\_adv.pdf](https://unfccc.int/sites/default/files/resource/cma2021_10_add1_adv.pdf).

**Figure 4. Approach to zero-carbon by 2050**



Electrification of major forms of energy consumption (e.g., transportation) and energy efficiency are key drivers of change in this approach. On the other hand, decarbonization of the energy sector to move towards renewables is the largest part of the production side of the equation. Finding appropriate technical solutions is a key part of the puzzle. Renewable energy solutions require significant capital investment, and the right mix of electricity generation is essential for grid stability. The achievement of SDG 7 in developing countries can be supported through an enabling tax policy and administrative framework that will meet the requirements for a just and inclusive energy transition. The primary focus will be on supporting the move towards renewables, followed by the other areas above. The policy mix will depend on the cost and availability of capital for investment, the current energy mix and capacity, industrialization goals and current resource endowments.

## 10.2 Desired outcomes

The desired outcomes for Goal 7 that can be supported through tax interventions are aligned with Targets 7.1, 7.2, 7.3 and 7.b, and the corresponding outcome indicators in 7.1.2, 7.2.1, 7.3.1 and 7.b.1.

**Target 7.1** *By 2030, ensure universal access to affordable, reliable and modern energy services*

**Target 7.2** *By 2030, increase substantially the share of renewable energy in the global energy mix*

**Target 7.3** *By 2030, double the global rate of improvement in energy efficiency*



**Target 7.b** *By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular, the least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programmes of support.*

### Carbon pricing<sup>102103</sup>

Carbon taxes—charges on the carbon content of fossil fuels—and similar arrangements to increase the price of carbon, are the single most powerful and efficient tool to reduce domestic fossil fuel CO<sub>2</sub> emissions producers (Akerlof and others 2019<sup>104</sup>; CAE and GCEE 2019<sup>105</sup>; Farid and others 2016<sup>106</sup>; Parry, de Mooij, and Keen 2012<sup>107</sup>; Parry, Morris, and Williams 2015<sup>108</sup>). Carbon prices can improve resource efficiency and boost investment in clean energy and low emission goods and services (OECD, 2018<sup>109</sup>; OECD, 2017<sup>110</sup>). Further, carbon prices reduce emissions by encouraging energy-users to abstain from carbon intensive activities that are only of low value to them. Carbon prices can encourage replacing carbon-intensive activities by low- and zero-carbon activities.

There is no consensus at intergovernmental level as to what the term carbon pricing stands for. However, there are certain instruments that are generally perceived to price carbon either because they are capable of conferring a positive price on carbon, or because they detract from the overall carbon price. There are four instruments capable of conferring an explicit or implicit price on carbon. Those are carbon taxes, emissions trading schemes (ETS), energy excise taxes or taxes based on energy use, and fossil fuel taxes. Carbon taxes and ETSs<sup>111</sup> are the only two instruments capable of conferring an explicit price on carbon, because the operation of the instrument is in itself capable of conferring a clear price indicator. Excises on energy and on fossil fuel products confer only an implicit price because these do not tend to be introduced having in mind the pricing of carbon as a main consideration. To start with, they are often levied on the retail, ad valorem price, meaning they are not specific and therefore they depend on a mathematical computation to be able to draw the inbuilt carbon price; specific excise duties, however, avoid this problem.

<sup>102</sup> Carbon pricing and energy trading are also discussed in Chapter 17 in relation to the SDG 13 on Climate Change.

<sup>103</sup> For an overview of the discussion concerning the conceptual approach to carbon pricing, see T. Falcão, *Paying the Piper: On the Legal Qualification of Carbon Prices*, January 2023, available at: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4336765](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4336765)

<sup>104</sup> Akerlof, George, and others. 2019. *Economists' Statement on Carbon Dividends*. <http://www.econstatement.org>.

<sup>105</sup> Council of Economic Analysis (CAE) and German Council of Economic Experts (GCEE). 2019. "A Uniform Carbon Price for Europe: Joint Statement of the CAE and the GCEE." CAE and GCEE. <http://www.cae-eco.fr/Communique-commun-des-conseils-economiques-francais-et-allemand-Joint-statement>.

<sup>106</sup> Farid, Mai, Michael Keen, Michael Papaioannou, Ian W. H. Parry, Catherine Pattillo, and Anna Ter-Martirosyan. 2016. "After Paris: Fiscal, Macroeconomic, and Financial Implications of Climate Change." IMF Staff Discussion Note 16/01, International Monetary Fund, Washington, DC

<sup>107</sup> Parry, Ian W. H., Ruud de Mooij, and Michael Keen. 2012. "Fiscal Policy to Mitigate Climate Change: A Guide for Policymakers." International Monetary Fund, Washington, DC.

<sup>108</sup> Parry, Ian W. H., Adele Morris, and Robertson C. Williams III. 2015. *Implementing a US Carbon Tax: Challenges and Debates*. London: Routledge

<sup>109</sup> OECD (2018), *Effective Carbon Rates 2018. Pricing Carbon Emissions Through Taxes and Emissions Trading*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264305304-en>.

<sup>110</sup> OECD (2017), *Investing in Climate, Investing in Growth*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264273528-en>.

<sup>111</sup> ETSs will derive an explicit carbon price provided the original allowance is auctioned, rather than grandfathered. Please refer to section 3.1.2, for further information.

Evidence suggests that the social cost of carbon must be set at the very price for renewables to be a full replacement for the current energy mix. Many developing countries do not have the resources and administrative capacity to introduce and manage such a regime. Also, the contribution of greenhouse gases in most developing countries, outside of China and India, are quite minimal. For these reasons, carbon taxes, while a relevant factor in energy transition, are not considered here but are explained in detail in SDG 13.

### Energy taxes

Unlike carbon taxes or an emission trading system (ETS), which are applied at the level of producers (extraction or import), energy taxes can be used to change consumer behavior with respect to clean energy at the retail level, if designed to reflect the carbon intensity of the primary fossil fuel product used in the generation of electrical energy. Taxing energy use can shift energy demand towards cleaner energy sources. By taxing combustible sources – which do emit CO<sub>2</sub> when combusted – at higher rates than non-combustible sources, energy tax systems can provide abatement incentives in support of decarbonization objectives and provide co-benefits such as reduced local air pollution.<sup>112</sup>

The choice of pollution control instrument is a crucial environmental policy decision. With growing momentum for federal legislation to control greenhouse gases, interest among policy makers in the issue of instrument choice has reached a fever pitch. The toolkit of environmental instruments is extensive, and includes emissions taxes, tradable emissions allowances (“cap-and-trade”), subsidies for emissions reductions, performance standards, mandates for the adoption of specific existing technologies, and subsidies for research toward new, “clean” technologies.

The Pigouvian principle usually suggests that emissions taxes are superior to alternative instruments. No single instrument is clearly superior in all the dimensions relevant to policy choice. Even the ranking along a single dimension often depends on the circumstances involved. Significant trade-offs arise in the choice of instrument. In particular, assuring a reasonable degree of fairness in the distribution of impacts, or ensuring political feasibility, often will require a sacrifice of cost-effectiveness. It is sometimes desirable to design hybrid instruments that combine features of various instruments in their “pure” form.<sup>113</sup> In advanced economies energy taxes raise around 1.5 percent of GDP in revenue. This percentage is usually much lower in developing countries. In the EU, environmental taxes raise around 2.5 percent of GDP. There is significant potential for these taxes to yield more revenue while also improving environmental quality.<sup>114</sup>

112 Stavins, Robert. 2019. “*The Future of US Carbon-Pricing Policy*.” NBER Working Paper 25912, National Bureau of Economic Research, Cambridge, MA

113 Goulder, Lawrence H., and Ian W. H. Parry. 2008. “*Instrument Choice in Environmental Policy*.” *Review of Environmental Economics and Policy* 2: 152–74.

114 Khaled Abdel-Kader and Ruud De Mooij (2020). *Tax Policy and Inclusive Growth*. IMF Working paper. WPI/20/271. IMF. 202.

What all specific taxes on energy use have in common is that they increase the final price of the taxed energy products. Higher energy prices encourage citizens and businesses to consume less energy. Energy savings can result from energy conservation, e.g., heating less in the winter, or shifting to less energy-intensive forms of economic activities.<sup>115</sup> The empirical literature confirms that the demand for energy products decreases as prices rise.<sup>116</sup> This meta-study additionally shows that consumers adjust their consumption patterns more strongly in the long term than in the short term. As a result, countries with higher taxes on energy use are expected to have lower energy intensity of GDP, everything else being equal.

### **Tax incentives for use of clean energy**

Electrifying final energy consumption could contribute to decarbonizing energy use provided that electricity generation itself is decarbonized. Energy consumption in transportation which is largely fossil fuel based and can be electrified – whether through EVs, use of electrified rail networks, hybridized electric road transport networks – is one example of electrification of energy consumption. Electricity taxes typically do not directly encourage power producers to shift to cleaner sources, and do not provide direct incentives for the decarbonization of the power sector. The reason is that most electricity taxes are not differentiated by energy source, and hence make all energy sources more expensive irrespective of the carbon content. Electricity taxes also incentivize reducing electricity use in general. In liberalized power markets, fossil fuel-powered generators are frequently the marginal electricity producer. Energy savings induced by electricity taxes could thus indirectly decrease emissions.

Developing countries face a major challenge of decarbonizing their light-duty vehicle fleet and transitioning to the broad use of electric vehicles. Colombia's sales tax and import tariffs have increased hybrid and electric vehicle market shares by 0.9 to 2.7 percent at welfare costs of \$40-\$48 per ton of carbon dioxide reduction. Potentially taxing carbon dioxide emissions rates of new vehicles would have roughly similar welfare costs. The high welfare costs of these policies arise from pre-existing distortions caused by market power, which yields large private welfare costs of shifting from gasoline to hybrid and electric vehicles.<sup>117</sup>

At the level of individual taxation, residential energy efficient property credit allows for a credit equal to the applicable percent of the cost of qualified property. Qualifying properties are solar electric property, solar water heaters, geothermal heat pumps, small wind turbines, and fuel cell properties.

#### *Other tax policy and administration interventions*

- Support the development of financing frameworks that reinvest environmental levies into energy transition and de-risk such projects.

<sup>115</sup> OECD (2019), *Taxing Energy Use 2019: Using Taxes for Climate Action*, OECD Publishing, Paris, <https://doi.org/10.1787/058ca239-en>.

<sup>116</sup> Labandeira, X., J. Labeaga and X. López-Otero (2017), "A meta-analysis on the price elasticity of energy demand", *Energy Policy*, Vol. 102, pp. 549-568.

<sup>117</sup> Callejas, Jerónimo, Joshua Linn and Jevgenijs Steinbuks (2022). "Welfare and Environmental Benefits of Electric Vehicle Tax Policies in Developing Countries: Evidence from Colombia." World Bank Policy Research Working paper 10001, April 2022

- Support the phasing out of fossil fuel subsidies and transition to more climate friendly fuels.
- Provide tax policy support for an enabling environment for energy transition by measures that encourage energy generation and production towards renewables and more climate friendly sources. Provide tax policy support for an enabling environment for transition of energy consumption towards more climate friendly sources and through measures that support demand reduction.
- Develop resources and data sets that help tax administrations in developing countries prevent abuse of tax measures designed to support energy transition.

The goal of universal access to affordable and reliable energy may create some tension with the goal to shift to primary reliance on clean fuels and technology. The cheapest form of energy may sometimes be fossil-fuel based when environmental costs are not priced in through a carbon tax or other energy tax measure. Further, fossil fuel subsidies can distort relative prices and affect the achievement of Target 7.1. Thus, while this measurement, covering budget expenditures rather than tax measures, would appear to be outside the scope of the SDG Tax Framework, they are intrinsically linked.

Fossil fuel subsidies aggravate fiscal imbalances and reduce the ability of governments to prioritize other public spending. They can also aggravate balance of payments pressures for developing countries that are net energy importers. Subsidies also distort resource allocation and affect energy transition by encouraging excessive energy consumption and reducing incentives for investment in renewable energy. The primary targets for removal of fossil fuel subsidies should be in household fuels, e.g., kerosene (HHK) and LPG, which tend to be inefficient, and environmentally friendly alternatives, such as biogas, can be designed with appropriate technology that support poorer households. The next target should be petrol or gasoline used for automobiles (PMS) which again tend to subsidize wealthier households. Diesel (AGO) is a more difficult case as there is a case to be made for subsidy for specific sectors such as agriculture. Administrative solutions such as colorants have been used in many jurisdictions, and these measures can be considered. The right policy mix will, again, depend on the country concerned, e.g., it may be appropriate to temporarily retain subsidies for LPG in some petroleum producing countries to incentivize producers to stop harmful gas flaring.

The purpose of the STF for SDG7 is therefore directional. They indicate, based on currently available technology and good practices observed, the types of tax policy options developing countries can consider in creating an enabling environment for energy transition in their countries. These policies have to be then considered in the context of wider environmental policy, regulations, development goals, current infrastructure and resource endowments. The measurement framework below, in common with the other STFs, is granular and focused purely on the tax measures relevant to energy transition.

Finally, the impact of tax measures that are designed to drive energy transition can lose much of their effectiveness where fossil fuels are kept at artificially low prices, and both consumers and businesses

receive distorted price signals regarding use of fossil fuels. This measurement thus addresses the state of fossil fuel subsidies and relates it to tax measures.

The foregoing discussion shows that there are a number of differing policy options in taxation for energy transition, which have to be considered in conjunction with other measures, such as imposing a price for carbon, market-based mechanisms and command and control measures (e.g., mandating the closure of fossil fuel based plants). Developing countries also face the parallel challenge of providing energy access, including electricity, to significant parts of their populations.

### 10.3 Performance measurement framework for Target 7.1

The **custodian agency** for Indicator 7.1.2 is the **WHO** and the **partner agency is UN-Energy**. This is a Tier I indicator.

Table 7.1 sets out the criteria for scoring the dimensions and sub-dimensions of Target 7.1.

**Table 7.1 Performance Measurement Framework for Target 7.1**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 7.1</b> By 2030, ensure universal access to affordable, reliable and modern energy services	Indicator 7.1.2 Proportion of population with primary reliance on clean fuels and technology	<b>G7-D1: Gradual removal of tax incentives for industries using fossil fuel.</b>	<b>Sub-dimension 1:</b> Extent to which tax relief for fossil fuels are withdrawn, and more targeted supports provided to the poor.	A	i. There is a policy commitment made, and execution commenced, of planned, gradual removal of all tax relief such as accelerated depreciation etc. for industries (including transportation) using fossil fuel.  ii. A program for targeted refundable tax credits for low-income households and individuals (e.g., transportation) is available.  iii. A policy commitment made, and execution commenced, of gradual removal of fossil fuel subsidies, consistent with country needs and consumption patterns.  iv. Assignment of a carbon equivalent for energy taxes.
				B	Any two of the above measures are seen
				C	One of the above measures is seen
				D	The requirements for a 'C' score are not met.

### Increasing the share of renewable energy in the global energy mix

As discussed above, pricing in environmental costs is an essential part of achieving transition. These are largely on the consumption side of the equation but will affect energy production as well as the price of feedstock for power generation. While a formal carbon tax which prices the cost of CO2 emissions is desirable, such a tax may not be administratively feasible or may be politically challenging to achieve. Proxies such as a redesign of an existing excise regime to reflect the cost of CO2, introduction of measures such as air passenger duty to capture the negative externalities of air travel and equivalent measures for cargo and private aircraft and application of such taxes to dirty fuels for household use can all be part of the solution. However, these measures must be undertaken in a structured policy framework that allows measurement and relationship to carbon emitted.

On the production side of energy, the existence of an appropriate policy regime to encourage the use of renewables can be brought into the measurement. This could cover both on-grid and off-grid power generation but can also apply to measures such as use of mixed fuel (e.g., plant based ethanol) in the transition from fossil fuel installations. Similar measures can be considered for affecting fuel efficiency and renewable fuel use in capital goods such as plant and machinery and automobiles. The experience in some developed countries of providing direct cash subsidies for renewables has not proven to be very efficient. For developing countries with scarce resources, the focus in tax policy should be encourage private investment in energy transition within a defined framework, and with quantification and cost-benefit analysis of the tax expenditures involved.

### 10.4 Performance measurement framework for Target 7.2

**Custodian agencies** for Indicator 7.2.1 are the **UNSD, IEA and IRENA**, and the **partner agencies** are **World Bank and UN- Energy**. This is a Tier I indicator.

Table 7.2 sets out the criteria for scoring the dimensions and sub-dimensions of Target 7.2.

**Table 7.2 Performance Measurement Framework for Target 7.2**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 7.2:</b> <i>By 2030, increase substantially the share of renewable energy in the global energy mix</i>	Indicator 7.2.1 Renewable energy share in the total final energy consumption	<b>G7-D2: Effective behavioral targeting of energy taxes</b>	<b>Sub-dimension 1:</b> Extent to which energy taxes are used to encourage reduced consumption of carbon fuels	A	i. Environmental taxes (or suitable proxies) are a significant revenue generator and are designed to undergo periodic tax rate increases over the medium term. The target over a five year period should be for this tax to account for at least one percent of GDP.

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
					<ul style="list-style-type: none"> <li>ii. A structured policy framework to incorporate emitted carbon measurement in taxes imposed on energy use (e.g., in excises on fuels, air passenger duty, cooking fuel) is being executed</li> <li>iii. A preferential regime for automotive excises (and similar taxes) and import tariffs for both domestically produced and imported electric and hybrid vehicles to increase their use.</li> <li>iv. A well-designed regime is in place for encouragement of renewable energy production not only in electricity production but also transportation and household use.</li> </ul>
				B	<ul style="list-style-type: none"> <li>i. Environmental taxes account for at least one-half percent of GDP.</li> <li>ii. Any two of (ii), (iii) or (iv) of 'A' score.</li> </ul>
				C	Any two of (ii), (iii) or (iv) of 'A' score
				D	The requirements for a 'C' score are not met.

### Improvement in energy efficiency

Increased energy efficiency is an important part of the energy transition. This can apply to both the production and the consumption of energy, but measures on the latter can be expected to provide nearer term outcomes, e.g., demand mitigation. For instance, moving from current incandescent and CFL to LED lighting can have immediate impact. Demand differentiation measures and better matching of demand and supply through pricing signals can impact energy efficiency. Household level transition in energy demand will also be an important metric. And finally, as measures such as a structured policy to tax carbon emissions bite, intermediate transitions, e.g., from coal fired to natural gas based power can also increase energy efficiency on the production side.

## 10.5 Performance measurement framework for Target 7.3

**Custodian agencies** for Indicator 7.3.1 are the **UNSD and IEA** and the **partner agencies** are the **World Bank and UN- Energy**. This is a Tier I indicator.

Table 7.3 sets out the criteria for scoring the dimensions and sub-dimensions of Target 7.3.

**Table 7.3 Performance Measurement Framework for Target 7.3**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 7.3:</b> <i>By 2030, double the global rate of improvement in energy efficiency</i>	Indicator 7.3.1 Energy intensity measured in terms of primary energy and GDP	<b>G7-D3: Effective use of carbon pricing</b>	<b>Sub-dimension 1:</b> Extent and frequency of use of carbon pricing	A	Carbon pricing is factored into goods with embodied carbon and is used in a systematic manner (every 5 years) to increase the price of carbon to a desired level and to boost investment in clean energy and low emission goods and services.
				B	Carbon pricing is factored into goods with embodied carbon and is used in a systematic manner (every 10 years) to increase the price of carbon to a desired level and to boost investment in clean energy and low emission goods and services.
				C	Carbon pricing is used in an ad hoc manner.
				D	The requirements for a 'C' score are not met.
		<b>G7-D4: Fiscal measures to encourage clean energy use at household level.</b>	<b>Sub-dimension1:</b> Extent of incentives provided to individuals and households to switch energy use to cleaner options	A	Tax credit or deduction is allowed for residential energy efficient property including: <ol style="list-style-type: none"> <li>i. Solar panels to power household use of energy and any related storage systems;</li> <li>ii. Solar water heaters;</li> <li>iii. Small wind turbines;</li> <li>iv. Fuel cell property;</li> <li>v. Geothermal heat pumps;</li> <li>vi. Energy efficient home insulation systems;</li> </ol>



Target	Indicator	Dimension	Sub-dimension	Score	Criteria
					vii. Smart energy saving devices for homes; viii. Other renewable energy sources.
				B	Tax credit is allowed for any four of the qualified property specified for an 'A' score.
				C	Tax credit is allowed for any two of the qualified property specified for an 'A' score.
				D	The criteria for a C score are not met.

### **Expansion of infrastructure upgrade technology for modern and sustainable energy services.**

Expansion of infrastructure and enhancing technology solutions in developing countries is a challenging task. Many developing countries, especially the LDCs and SIDS mentioned in the Target, suffer from low investment and cannot access global capital markets on equal terms as other countries. Further, many countries have already invested scarce resources in fossil-fuel based infrastructure and would prefer to see such assets being fully utilized. The options outlined are not equally appropriate or cost-effective across jurisdictions; the country context will be important in determining which are the most efficient to apply. The Tax for SDGs initiative will, over time, develop a set of cost benefit analysis criterion to help countries make this determination.

Measures in this area would therefore need to be conscious of the country context, and the measurement framework should be broad enough to capture a range of options. These could include, e.g. the use of smart grids or demand management to better utilize current infrastructure, adoption of new technology or repurposing of existing infrastructure, e.g. use of petroleum pipelines to transport liquid hydrogen. The approach could also include administrative relaxations such as reducing the administrative burdens on power generators through benchmark expense factors or accepting manufacturer representations for compliance with energy saving or demand differentiation of standards. Finally, it will be important to have measures that support the de-risking of financial investments in renewable energy or infrastructure space.

## 10.6 Performance measurement framework for Target 7.b

The custodian agency for Indicator 7.b.1 is **IRENA**. This is a Tier I indicator.

Table 7.4 sets out the criteria for scoring the dimensions and sub-dimensions of Target 7.b.

**Table 7.4 Performance Measurement Framework for Target 7.b**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<p><b>Target 7.b:</b> By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programmes of support</p>	<p>Indicator 7.b.1: Investment in energy efficiency as a proportion of GDP and the amount of FDI in financial transfer for infrastructure and technology to sustainable development services</p>	<p><b>G7-D5: Fiscal measures to support expansion of infrastructure and upgrade technology for supplying modern and sustainable energy services.</b></p>	<p><b>Sub-dimension1:</b> Extent of provisions that support firms in adopting technologies that help reduce or eliminate carbon in energy generation, transmission and use.</p>	<p>A</p>	<p>Tax measures including special deductions or incentives for:</p> <ul style="list-style-type: none"> <li>i. Smart local grids or demand management technology for power distribution when such services are provided by non-publicly owned entities</li> <li>ii. Provisions to support the production and adoption of fuel cells, hydrogen fuels, recycled oils that reduce or eliminate carbon emissions;</li> <li>iii. Provisions that support adoption of cleaner technology for fossil fuel based electricity generation;</li> <li>iv. Provisions that support implementation of charging networks, provision of less polluting transportation fuels, etc. that help reduce operational carbon in transportation;</li> <li>v. For countries with a resource endowment, measures to repurpose current infrastructure for use with renewables or for carbon capture and storage.</li> <li>vi. Ensuring tax neutrality or tax advantages for measures that de-risk financial investments in renewable energy.</li> </ul>

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
			1	B	Any three of the criteria for an A score are seen
				C	Any two of the criteria for an A score are seen
				D	The requirements for a 'C' score are not met.

DRAFT

## 11. Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

---

**Goal 8 has synergies with Goal 1 (Ending Poverty), Goal 4 (Education) and Goal 10 (Reducing Inequality), and should be examined together**

### 11.1 Background and good practices

A country's rate of economic growth depends on many factors including the rate of economic growth of its main trading partners, the country's innovative capacity, the availability of venture capital, the amount and type of investment, the degree of entrepreneurship, the skills level and the mobility of the workforce, the flexibility of the labor market, the degree to which individuals have an incentive as well as an opportunity to participate in the labor market, the labor costs for employers of hiring workers, the availability of qualified workers, the administrative burden on businesses, product market regulations, the economic infrastructure as well as the legal certainty and the confidence level of consumers and businesses.

Tax system plays a crucial role as it is likely to impinge on many of these factors. The level of taxes that are raised, the tax mix, the quality of tax administration, the complexity of tax rules and the tax compliance costs, the certainty and predictability for households and businesses of the taxes that have to be paid, as well as the specific design characteristics of individual taxes including the availability of tax incentives and the width of the different tax bases can have an impact on the country's economic growth.<sup>118</sup> and <sup>119</sup>

### 11.2 Desired outcome

The desired outcome for Goal 8 that can be supported through tax interventions is enunciated in Targets 8.3 and 8.9 and the corresponding outcome indicators in 8.3.1 and 8.9.1.

**Target 8.3** *Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services*

**Target 8.9** *By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products*

118 OECD (2008). *Tax and economic growth*, Economics Department Working Paper, No. 620.

119 OECD (2018). *Getting It Right. Strategic Priorities for Mexico. Chapter 2. "Strengthening Mexico's fiscal policy"* Sonia Araujo, B. Brys and K. Killmeier. (OECD 2018)

## Labor utilization

Reforms of labor income taxation will generally have to differ depending on whether the aim is to raise participation or hours worked. Reducing average labor taxes – either directly through tax rate decreases or indirectly through the implementation of earned income tax credits or other “in-work benefits” policies – could be desirable for raising participation, while lowering marginal rates may be preferable for increasing hours worked. Any such reform should, however, take into account joint effects with existing benefits, which could affect the effective average and marginal tax rates, particularly for low-skilled workers or second earners. Moreover, the effects of changes in labor taxes on employment are also likely to be dependent on other factors influencing labor market institutions, such as wage-setting mechanisms and minimum wages, which affect the pass through of taxes on to labor cost.

There may also be gains, both in the quantity and the quality of labor supply, from moderating the progressivity of the personal income tax schedule. There are adverse effects of highly progressive income tax schedules on GDP per capita through both lower labor utilization and lower productivity. Again, this implies a potential trade-off between growth-enhancing tax policies and distributional concerns.<sup>120</sup>

However, there may be win-win labor tax reforms in this area. For example, “in-work benefits” increase the income of low-income households, thus reducing inequality, and may also improve efficiency if the gain in labor force participation outweighs the adverse incentives on hours worked by job-holders (as benefits are withdrawn) and on human capital formation (as the returns from up-skilling are reduced).

## Productivity

There are several ways in which tax policy can influence productivity:<sup>121</sup>

- One option is to reduce the top marginal statutory rate on personal income, where the top marginal rate is too high, since it has an impact on productivity via entrepreneurship by affecting risk taking by individuals. While empirical research has pointed to conflicting ways in which entrepreneurship could be affected, a reduction in the top marginal tax rate is found to raise productivity in industries with potentially high rates of enterprise creation. However, the trade off with equity objectives needs to be kept in mind. It is also possible that cutting top marginal tax rates could increase economy-wide productivity through composition effects, by increasing the share of industries with high rates of enterprise creation. It should be noted, however, that, in most developing countries, the entire PIT revenue is less than five percent of GDP, and as such a weak instrument to have much effect on influencing productivity.
- A second option is to reform corporate taxes, as they influence productivity in several ways. Evidence suggests that lowering statutory corporate tax rates, where they are too high, can lead to particularly large productivity gains in firms that are dynamic and profitable, i.e., those that

<sup>120</sup> OECD (2008). *Tax and economic growth*, Economics Department Working Paper, No. 620.

<sup>121</sup> *ibid*

can make the largest contribution to GDP growth. One possible implication is that tax exemptions or reduced statutory corporate tax rates for small firms might be much less effective in raising productivity than a generalized reduction in the overall statutory corporate tax rate. This reduction could be financed by scaling down exemptions granted on firm size as they may only waste resources without any substantial positive growth effects.

- A widely used policy avenue to improve productivity is to stimulate private-sector innovative activity by giving tax incentives to R&D expenditure. The effect of these tax incentives on productivity appears to be larger for industries that are structurally more R&D intensive. Nonetheless, tax incentives have been found to have a stronger effect on R&D expenditure than direct funding.

### 11.3 Performance measurement framework for Target 8.3

The custodian agency for Indicator 8.3.1 is the **ILO**. This is a Tier II indicator.

Table 8.1 sets out the criteria for scoring the dimensions and sub-dimensions of Target 8.3.

**Table 8.1. Performance Measurement Framework for Target 8.3**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 8.3</b> <i>Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services</i>	Indicator 8.3.1 Proportion of informal employment in total employment, by sector and sex	<b>G8-D1: Labor utilization</b>	<b>Sub-dimension 1:</b> Scope of tax measures for increasing labor utilization	A	The tax system: <ol style="list-style-type: none"> <li>i. Has low PIT rate for low-income wage-earners.</li> <li>ii. Allows earned income tax credits.</li> <li>iii. Provides other “in-work benefits” policies.</li> </ol>
				B	The tax system provides any two of (i), (ii) or (iii) of ‘A’ score
				C	The tax system provides any one of (i), (ii) or (iii) of ‘A’ score

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
				D	The requirements for a 'C' score are not met.
		<b>G8-D2: Increasing productivity</b>	<b>Sub-dimension 1: Scope of tax measures for increasing productivity</b>	A	<ul style="list-style-type: none"> <li>i. Tax incentives are available for R&amp;D expenditure.</li> <li>ii. The top marginal statutory rate on PIT is analyzed routinely to determine whether it affects productivity growth.</li> <li>iii. The CIT rate is analyzed routinely to determine whether it affects productivity growth</li> </ul>
				B	Same as A (i) and any one of (ii) or (iii) of 'A' score
				C	The extent to which the tax system provides any one of (i), (ii) or (iii) of 'A' score
				D	The requirements for a 'C' score are not met.

### Tourism as a sector for employment growth

A good business environment for tourism is essential to support the industry's central role in many countries' development strategies. Yet in many countries, tax systems for the tourism sector are characterized by exemption schemes and instruments that generate little revenue and burden business. Investments in the sector, which has significant growth potential, can have important positive spillovers on employment generation and poverty reduction. However, enterprise surveys in several economies show that most tourism operators consider taxes (including multiple taxes and the costs to comply) as substantial obstacles to business and investment. Efforts to streamline the tax regime can help stimulate tourism by reducing the costs for businesses to start up and operate in the sector.<sup>122</sup>

<sup>122</sup> Corthay, Laurent; Loepnick, Jan. 2010. *Taxing Tourism in Developing Countries: Principles for Improving the Investment Climate Through Simple, Fair, and Transparent Taxation. Investment Climate in Practice*: No. 14. World Bank, Washington, DC. World Bank.

The general principle of keeping taxation simple, transparent, and fair should be practiced, and policymakers should avoid treating tourism differently than other sectors. Sector-specific incentives should be reduced or eliminated over time in favor of lower, regionally comparable, and evenly applied tax rates for all investments. In particular, the standard corporate tax regime should apply, without incentives that reduce the income tax rate.

The following guidelines are useful to mitigate potential costs when fiscal incentives are used:

- Choose incentives that have low revenue costs.
- Limit opportunities for discretion and enhance transparency by ensuring that incentives are provided by law and approved by the legislature. Incentives should be granted against a pre-defined set of criteria. Eligibility should be automatic for companies satisfying the criteria.
- Ensure that the incentive policy is not biased against local investors, who typically have less capital and limited access to markets.
- Regularly quantify the effects of the incentive scheme to monitor its impact on the budget.
- Establish effective control mechanisms, using regular tax filings and relevant forms as preconditions to qualify for any incentives.
- When incentives are provided to jumpstart an activity, establish a clear timeframe after which incentives are phased out.
- Tourism-specific levies may be justified when they are easy to administer. The widely used hotel room, entry, and exit taxes are easy to administer, complied with by taxpayers, and effectively generate revenues. Most of the many onerous taxes and parafiscal charges should be eliminated.
- Differential treatment of VAT in the tourism sector should be avoided in favor of a simple, evenly applied system that limits excessive compliance costs and reduces opportunities for abuse.

## 11.4 Performance measurement framework for Target 8.9

The **custodian agency** for Indicator 8.9.1 is the **UNWTO** and **partner agency** is **UNEP**. This is a Tier II indicator.

Table 8.2 sets out the criteria for scoring the dimensions and sub-dimensions of Target 8.9.



**Table 8.2 Performance Measurement Framework for Target 8.9**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<p><b>Target 8.9</b> <i>By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products</i></p>	<p>Indicator 8.9.1 Tourism direct GDP as a proportion of total GDP and in growth rate</p>	<p><b>G8-D3: Enhancing tourism (as a proxy for employment generation)</b></p>	<p><b>Sub-dimension 1:</b> Extent to which the taxation in the tourism sector is streamlined to encourage investment and reduce compliance costs.</p>	A	<ul style="list-style-type: none"> <li>i. The tax regime provides allowances and tax credits for capital-intensive investments or accelerated depreciation for the tourism sector.</li> <li>ii. There is no or limited opportunities for discretion in applying the tax incentives</li> <li>iii. Incentives are granted in a transparent manner against a pre-defined criteria.</li> <li>iv. There is a clear timeframe for phasing out incentives provided to jumpstart tourism activity.</li> <li>v. Multiple local/regional taxes and charges are eliminated and consolidated into one basic tax for the tourism sector.</li> </ul>
				B	<ul style="list-style-type: none"> <li>i. The tax regime provides allowances and tax credits for capital-intensive investments or accelerated depreciation for the tourism sector.</li> <li>ii. There is no or limited opportunities for discretion in applying the tax incentives, and incentives are granted in a transparent manner against a pre-defined set of criteria.</li> </ul>
				C	<ul style="list-style-type: none"> <li>i. The tax regime provides allowances and tax credits for capital-intensive investments or accelerated depreciation for the tourism sector.</li> </ul>
				D	<p>The requirement for a 'C' score is not met.</p>

## 12. Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

---

### 12.1 Background and good practices

Development happens through structural transformation, which shifts the balance of economic activity away from agriculture and towards manufacturing and service sectors, in the process creating better job opportunities.<sup>123</sup> Countries need reliable infrastructure to connect supply chains and efficiently move goods and services across borders. Infrastructure connects households across metropolitan areas to higher quality opportunities for employment, healthcare and education. Quality infrastructure lowers production costs and increases returns to investment. It increases business efficiency by saving time, improving reliability, providing higher quality services and thus supporting economies of scale and making agglomerations of economic activity more productive.

Likewise, research and development (R&D) is an important driver of economic growth as it spurs innovation, invention, and progress. R&D spending can be capital-intensive, but also can lead to breakthroughs that can drive both profits and wellbeing for consumers. New research continues to show that investment in R&D spurs economic growth—where a one percent increase in R&D spending grows the economy by 0.61 percent.<sup>124</sup> To support private investment in infrastructure and R&D, governments can either offer direct financial support via grants or public procurement; or they can indirectly strengthen the incentives for firms to invest via the tax system. These two types of policy instruments are different in the way they are administered, the type of market failures they address and the different types of infrastructure and R&D they encourage.<sup>125</sup>

### 12.2 Desired outcome

The desired outcome for Goal 9 is enunciated in Targets 9.3, 9.5 and 9.b and the corresponding outcome indicators in 9.3.1, 9.5.1 and 9.b.1.

**Target 9.3** *Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets*

**Target 9.5** *Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and*

---

123 World Bank (2013). *World Development Report 2013: Jobs*.

124 John Wu (2015). *Fueling Innovation: The Role of R&D in Economic Growth*. Information Technology & Innovation Foundation. December 2015.

125 Appelt, S. et al. (2016), "Tax Incentives: Evidence on design, incidence and impacts", in OECD Science, Technology and Industry Policy Papers, OECD Publishing, Paris, <https://doi.org/10.1787/5jlr8fldqk7j-en>.

*substantially increasing the number of research and development workers per 1 million people and public and private research and development spending*

**Target 9.b** *Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities*

### **Small-scale enterprises access to formal market**

Globalization of production, rapid spread of low-cost transportation and advanced communications technologies, have freed the movement of investment, goods, information, and finance leading to the spread of global value chains. There are huge opportunities for SMEs in global value chains as it exposes them to a large customer base, opportunities to learn from large firms and engage in global marketplace. Enterprises that are both competitive and connected are able to link into, and benefit from, global value chains. Access to finance is also a key success factor for SMEs to participate in global value chains. Therefore, businesses that get integrated into the global value chain are able to improve their competitiveness through reducing their costs of doing business.<sup>126</sup>

The total resource cost to business of a given tax system includes tax burden – the amount of money that taxpayers are required to pay to government. This includes their tax liabilities and the amount of administrative and compliance costs required to meet tax obligations. For example, recording transactions, maintaining accounts, computing and filing tax returns, etc. The economic incidence of these costs is reflected in higher consumer prices, reduced total returns to labor and reduced total returns to capital. **One of the biggest reasons for the size of the informal sector is the compliance costs of being in the formal sector.**

By reducing tax compliance costs and thereby lowering the overall tax burden on small businesses will help encourage adherence to the tax laws of a country, including operating in the ‘formal’ rather than informal (underground) economy, and full reporting of all amounts required to determine the true tax base.

## **12.3 Performance measurement framework for Target 9.3**

**The custodian agency** for Indicator 9.3.1 is **UNIDO** and the partner agency is **UNCDF**. This is a Tier II indicator.

Table 9.1 sets out the criteria for scoring the dimensions and sub-dimensions of Target 9.3.

<sup>126</sup> <https://www.adb.org/sites/default/files/publication/175295/smes-global-value-chains.pdf>

**Table 9.1. Performance Measurement Framework for Target 9.3**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 9.3</b> <i>Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets</i>	Indicator 9.3.1 Proportion of small-scale industries in total industry value added	<b>G9-D1: Scope of reduced tax burden for small sized industries</b>	<b>Sub-dimension 1:</b> Extent to which the tax system promotes inclusion of small sized business into formal economy	A	i. The tax system requires simplified accounting regime. ii. There are easier requirements for registration for SMEs. iii. There are less frequent filing and payment requirements for SMEs. iv. Simplified declaration forms exist for SMEs. v. Electronic platforms are available to facilitate business access to information on how to comply with payroll, income tax and social security systems.
				B	Any three out of (i) to (iv) of 'A' score.
				C	Any two out of (i) to (iv) of 'A' score.
				D	The requirements for a 'C' score are not met.

### R&D tax incentives

Tax incentives for R&D are used to mitigate the distortionary impact of CIT on investment. In advanced countries investment in R&D is incentivized. In developing countries, incentives often focus on attracting FDI. However, to stimulate economic growth, incentives for R&D should be carefully designed to encourage R&D conducted within the country that are at least partially owned by national or private sector actors. This will ensure that the country benefits from the R&D domestically. In either case, their design can be improved by focusing the incentives on reducing the cost of investment, rather than providing tax relief on profit.<sup>127</sup>

Tax incentives are often granted to all firms that qualify for a set of pre-defined conditions and leave the selection of R&D projects to firms. This makes them less discretionary and typically easier and less costly to administer. However, depending on the design of the tax provisions, they may also lead

<sup>127</sup> Khaled Abdel-Kader and Ruud De Mooij (2020). *Tax Policy and Inclusive Growth*. IMF Working Paper WP/20/271. IMF

to significant deadweight losses if tax incentives are granted to R&D that would have taken place anyway in the absence of such tax incentives<sup>128</sup>. The non-discretionary nature of tax incentives may also limit the scope for identifying and supporting projects with higher social returns and assessing the veracity of R&D tax incentive claims.

R&D personnel costs account for the largest share of intramural R&D costs, and in principle, the focus on R&D personnel does incentivize investment in human resources based in the domestic economy. Acquisition of capital assets to be used for R&D is less typically supported, as assets may be subsequently disposed of or used for other purposes.<sup>129</sup> The additional R&D generated through the tax relief can be attributed entirely to an increase in the number of R&D employees in the companies' workforce.<sup>130</sup>

Many countries use tax incentives to stimulate private expenditure in R&D including the majority of OECD countries and other large economies such as China, India, Brazil and Russia. There seems to be a positive and significant impact of tax credits for R&D, implying a user-cost elasticity estimate of around -1.6. This magnitude implies around \$1 in additional private R&D spending per dollar foregone in tax revenue.<sup>131</sup> Recent years have observed an increase in the use of R&D tax incentives across countries, with their weight on public finances growing steadily over the last two decades.<sup>132</sup> Among OECD countries where they are offered, R&D tax incentives are estimated to reduce the cost of capital on average by 3.5 percentage points and the effective average tax rate (EATR) firms face by 8.8 percentage points.<sup>133</sup>

Many countries currently rely on tax incentives to encourage R&D than a decade ago. Most OECD countries offer R&D tax incentives at central or subnational government level, and this number reaches twenty-two in the EU-27 area. Countries differ in the extent to which they rely on tax measures to support R&D, and those that do design tax relief measures in substantially different ways.<sup>134</sup> The key features in the design include the following:

- i. Tax allowances or tax credit. The choice between credits and allowances is largely a formal one, as they can be converted into each other to be made equivalent. However, the value of the tax benefit will react differently to changes in the tax rate, the value of R&D tax allowances being directly linked to the level of the corporate income tax rate.
- ii. Tax base. Most countries provide corporate income tax offsets, payroll withholding tax credits

128 Ibid.

129 OECD (2021). *OECD R&D tax incentives database*, 2021 edition. OECD

130 Irem Gucer (2018). "Will the real R&D employees please stand up? Effects of tax breaks on firm-level outcomes" *International Tax and Public Finance*, Springer; *International Institute of Public Finance*, vol. 25(1), pages 1-63, February.

131 Irem Gucer and Li Liu (2019). *Effectiveness of Fiscal Incentives for R&D: Quasi-experimental Evidence*. *American Economic Journal: Economic Policy* 2019, 11(1), 266-291

132 Appelt, S. et al. (2016), "Tax Incentives: Evidence on design, incidence and impacts", in *OECD Science, Technology and Industry Policy Papers*, OECD Publishing, Paris, <https://doi.org/10.1787/5jlr8fldqk7j-en>.

133 González Cabral, A., S. Appelt and T. Hanappi (2021), "Corporate effective tax rates for R&D: The case of expenditure-based R&D tax incentives", *OECD Taxation Working Papers*, No. 54, OECD Publishing, Paris, <https://doi.org/10.1787/ff9a104f-en>.

134 OECD (2021). *OECD R&D tax incentives database*, 2021 edition. OECD

and social security exemptions being offered in only seven OECD countries as of 2020. Some countries target tax credits (e.g., United States) to R&D expenditures over and above of a pre-defined baseline amount. The latter type of incentive is commonly described as “incremental”. Some countries offer a hybrid system comprising both a volume and an incremental tax credit (Korea, Portugal and Spain) or allowance (Czech Republic and Slovak Republic).

- iii. Temporary or permanent. Most R&D tax support schemes initially came into being as temporary measures so there is some uncertainty attached to them. Finland introduced a scheme on a temporary basis over the 2013-14 biennium that was not extended beyond this period. Awareness of plans not to extend the scheme appears to have contributed to limited take up of the scheme (Kuusi et al., 2016). The United States introduced the federal research and experimentation (R&E) credit as a temporary measure in 1981, which after 17 extensions became permanent with effect from 2016.
- iv. Carryover or refund. In 2020, firms can carry over unused claims for three years in the Czech Republic, six years in Poland, eight years in Portugal, 18 years in Spain, and 20 years in the United States. Carry-overs over an indefinite time horizon are further available in several OECD countries. Refundability can be particularly beneficial for young, innovative firms, at the stage of investing in developing and launching their products. A potential downside of such provisions is that they can also be used by firms with the ability to shift profits to other jurisdictions.

It is important to underscore that what is feasible for OECD countries may not generate returns on investment in most developing countries with small markets and low skills. Investment in R&D is a high-risk venture and may not be viable for many developing countries. Incentives for R&D, therefore, need to be carefully analyzed. Instead, returns from investment in cost reduction measures and improving business practices and service delivery of both the private and public sector are far more important in spurring the development process.

## 12.4 Performance measurement framework for Target 9.5

The custodian agency for Indicator 9.5.1 is **UNESCO-UIS**. This is a Tier I indicator.

Table 9.2 sets out the criteria for scoring the dimensions and sub-dimensions of Target 9.5.

**Table 9.2. Performance Measurement Framework for Target 9.5:**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<p><b>Target 9.5</b>  <i>Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending</i></p>	<p>Indicator 9.5.1                      Research and development expenditure as a proportion of GDP</p>	<p><b>G9-D2: Scope of tax incentives for investment in R&amp;D</b></p>	<p><b>Sub-dimension 1:</b> Extent to which the tax system promotes R&amp;D through tax measures</p>	A	<ul style="list-style-type: none"> <li>i. The tax system provides tax allowance or tax credit for investment in cost reduction measures and improving business practices and service delivery.</li> <li>ii. AND</li> <li>iii. Only in countries where investment in R&amp;D is cost-effective and feasible, the tax system provides tax allowance or tax credit as incentive to mitigate the cost of investment in R&amp;D.</li> <li>iv. The incentives are non-discretionary and based on a set of pre-defined conditions.</li> <li>v. The incentive provides both CIT offset and payroll withholding tax credit.</li> <li>vi. Firms are allowed to carry forward unused claims for a certain number of years or are allowed refund for unused claim.</li> </ul>
				B	<ul style="list-style-type: none"> <li>i. Same as (i) of 'A' score.</li> <li>ii. Same as (ii) of 'A' score.</li> <li>iii. The incentive is allowed for either CIT offset or payroll withholding credit, but not both.</li> <li>iv. Carry forward or refund may not be allowed for unused claim.</li> </ul>
				C	<ul style="list-style-type: none"> <li>i. The tax incentive is used to provide tax relief on profit and not to mitigate the cost of investment.</li> </ul>

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
					<ul style="list-style-type: none"> <li>ii. The incentive may be provided in a discretionary manner on a case-by-case basis.</li> <li>iii. The incentive for R&amp;D is allowed only for CIT offset.</li> <li>iv. Carry forward or refund are not allowed for unused claim.</li> </ul>
				D	The requirements for a 'C' score are not met.

### Tax incentives for quality infrastructure

Quality infrastructure investment is essential for sustainable and equitable economic growth. Yet, creating quality infrastructure has often been challenging. IMF analysis suggests that, on average, over one-third of the resources spent on public investment are lost due to inefficiencies in its public investment management processes, with substantial scope for improving public investment efficiency across income groups. The benefits of additional investment depend crucially on the strength of infrastructure governance, i.e., public-sector institutions in planning, allocating, and implementing public investment in infrastructure. Strong infrastructure governance helps improve efficiency of public investment, thereby supporting economic growth and fiscal sustainability. IMF analysis shows that strong infrastructure governance can help countries close more than half of their efficiency losses.<sup>135</sup>

Experience shows that tax financing, concessional lending, or private sector financing through public private partnerships (PPPs) are more advantageous than government borrowing through financial markets because they support growth while containing the impact on public debt. However, the optimal choice also depends on available fiscal space, taxation capacity, implementation risks, and public investment efficiency. To reap the most benefits from higher infrastructure investment, countries need to manage fiscal risks carefully, including from PPPs and state-owned enterprises, and improve public investment efficiency.<sup>136</sup>

## 12.5 Performance measurement framework for Target 9.b

The custodian agency for Indicator 9.b.1 is **UNIDO** and the partner agency is the **OECD**. This is a Tier I indicator.

135 IMF (2020). *IMF's Role in Infrastructure Governance*

136 Olivier Bizimana, Laura Jaramillo, Saji Thomas and Jiae Yoo (2021). *Scaling up quality Investment in South Asia*. IMF Working Paper. April 2021.



Table 9.3 sets out the criteria for scoring the dimensions and sub-dimensions of Target 9.b.\

**Table 9.3. Performance Measurement Framework for Target 9.b**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 9.b</b> <i>Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities</i>	9.b.1 Proportion of medium and high-tech industry value added in total value added	<b>G9-D3: Scope of tax incentives for investment in infrastructure</b>	<b>Sub-dimension 1:</b> Extent to which the tax system promotes investment in quality infrastructure through tax measures	A	<ul style="list-style-type: none"> <li>i. Tax incentives in the form of exemptions, deduction, exclusions, or credits are allowed to lower the cost of financing infrastructure investment.</li> <li>ii. Tax-exempt bonds are provided for lowering the interest cost of investment in infrastructure projects.</li> <li>iii. Public-private partnerships with provision for toll tax are used to finance many infrastructure projects.</li> <li>iv. There is strong infrastructure governance mechanism which uses a cost-benefit analysis or performance audit to determine the efficiency of public investment in infrastructure.</li> </ul>
				B	Same as (i), (ii) and (iii) or 'A' score.
				C	Any two of (i), (ii) and (iii) or 'A' score.
				D	The requirements for a 'C' score are not met.

## 13. Goal10: Reduce inequality within and among countries

**Goal 10 has strong synergies with Goal (Ending Poverty) and Goal 2 (Ending Hunger), and should be examined together**

### 13.1 Background and good practices

Reducing poverty and inequality are central to United Nations' SDGs. While transfer payments and other forms of subsidies from the budget are best practice instruments of fiscal policy choice for tackling poverty and inequality, well-designed and properly implemented tax policies can substantially contribute to reducing inequalities.<sup>137</sup> Evidence also suggests that greater progressiveness allows countries to engage in countercyclical fiscal policy and thus creates the policy space to stabilize economic fluctuations, both in the short-run and long-run<sup>138</sup>. The impact of tax policies can go far beyond just enhancing DRM. The progressivity of fiscal systems is key and must be part of the solution for fiscal policies to have an effect on reducing inequalities.<sup>139</sup>

The least developed countries with a large agricultural sector and high level of informality often have very narrow tax bases, with a substantial majority of their tax revenue generated from a very small number of taxpayers. In these countries, taxable thresholds often exclude a majority of smaller taxpayers from the tax net. As such, progressivity in the PIT will not have the same impact in addressing inequality as it would in a country where the PIT tax base includes a sizeable majority of income earners.

International assistance must be consistent and focus on supporting countries' capacity to enact and finance their own development strategies. Likewise, global rules need to promote a fair distribution of income and development opportunities at the international level.

### 13.2 Desired outcome

The desired outcome for Goal 10 that can be supported by tax interventions is enunciated in Targets 10.4, 10.6 and 10.a and the corresponding outcome indicator in 10.4.2, 10.6.1 and 10.a.1.

137 ECOSOC (2019). *ECOSOC- special meeting on International Cooperation in Tax Matters \_Summary.pdf*. April 2019. New York. [https://www.un.org/esa/ffd/wp-content/uploads/2019/11/2019-ECOSOC-Tax-meeting\\_Summary.pdf](https://www.un.org/esa/ffd/wp-content/uploads/2019/11/2019-ECOSOC-Tax-meeting_Summary.pdf)

138 Christian E. Weller and Manita Rao, "Can Progressive Taxation Contribute to Economic Development?" Political Economy Research Institute Working Paper Series Number 176. Accessible at [https://scholarworks.umass.edu/cgi/viewcontent.cgi?article=1147&context=peri\\_workingpapers](https://scholarworks.umass.edu/cgi/viewcontent.cgi?article=1147&context=peri_workingpapers)

139 United Nations (2019). *Financing for Sustainable Development Report 2019*. Interagency Task Force on Financing for Development. <https://developmentfinance.un.org/sites/developmentfinance.un.org/files/FSDR2019.pdf>

**Target 10.4** *Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality*

**Target 10.6** *Ensure enhanced representation and voice for developing countries in decision-making in global international economic and financial institutions in order to deliver more effective, credible, accountable and legitimate institutions*

**Target 10.a** *Implement the principle of special and differential treatment for developing countries, in particular least developed countries, in accordance with World Trade Organization agreements*

### **Strengthening horizontal and vertical equity**

When looking at tax fairness, two different goals in distribution are observed: vertical and horizontal equity. Horizontal equity is a tax principle based on the idea that individuals with the same income should pay an equal amount of tax, irrespective of the source of income, i.e., whether it is from labor (salary and wages) or from capital (dividend, interest, rent, profits). On the other hand, vertical equity is based on the idea of taxes paid increasing with an increase in income, also known as the “ability to pay tax” principle. Persons with higher resource access and wealth are hence required to pay more than those who have less, through progressive taxation whereby persons with higher income brackets pay higher tax rates. The explanation for this is that the marginal utility of every additional sum of money is much higher for a poor person as compared to a rich person. Poverty does not allow people to spend much beyond their basic needs, whereas a rich person spends proportionately much less on basic needs and more on luxury goods.

In some cases, strengthening horizontal equity may contribute to enhancing vertical equity. For instance, better aligning capital and labor income taxation may strengthen both horizontal and vertical equity. It enhances horizontal equity by treating different forms of income more similarly. In turn, a more horizontally equal tax treatment of capital and labor income reduces incentives and opportunities for high-income earners to shift compensation from wages into capital income, resulting in greater vertical equity. Similarly, by harmonizing the tax treatment of different types of capital income, the tax system will no longer distort choices by favoring particular types of investment and saving activities.

### **Monitoring inequality<sup>140</sup>**

To monitor progress against the SDGs on reducing income and wealth inequality, national statistical systems, household surveys and poverty measurement methodologies are at the heart of tracking these global goals. As with poverty, there are many ways to measure income inequality. The most commonly used ones are the Gini index and the share of consumption or income held by each quintile of a country’s population. Currently, the Gini coefficient ranges from 63.0 for the greatest income inequality (South Africa) to 23.2 for the least unequal (Slovakia).<sup>141</sup> These are useful ways to measure

<sup>140</sup> World Bank (2020). World Development Indicators. Themes – Poverty and Inequality. <https://datatopics.worldbank.org/world-development-indicators/themes/poverty-and-inequality.html>

<sup>141</sup> World Population Review (2023) Accessed at <https://worldpopulationreview.com/country-rankings/income-inequality-by->

progress made by a country in addressing inequality over time, even though the Gini coefficient in a country is affected by a large variety of social, political, economic and cultural factors. Like other instruments, tax policy measures can, to some extent, help reduce inequality, although tax measures alone cannot lower the Gini coefficient. Nonetheless, it would still be worthwhile to track the dynamics of the Gini coefficient as a reference item.

### Tax mix

Tax mix can be defined as the balance of different taxes that make up tax revenue of a country. A country's tax mix describes the proportion of total tax revenues derived from various tax resources. A tax mix consists of both direct and indirect taxes. Tax mix is important in any country since it is an indicator of the need for the type of taxes and the ultimate effects the taxes have for example costs on employees, the consumers and capital providers.<sup>142</sup> According to Hamilton *et al*, any tax reform initiatives in a country significantly impact the tax mix irrespective of whether the reforms are for purposes of broadening the tax base or lowering specific tax rates.<sup>143</sup> While VAT, which is often regressive in nature, helps in promoting economic growth and efficiency in producing revenue, detailed distributional studies have demonstrated that raising more revenue from progressive PIT rates combined with reduced reliance on the VAT reduces after-tax and after transfer income inequalities and economic security of those with low incomes.<sup>144</sup>

Understanding the nature and composition of taxation is key to reducing poverty, providing sufficient revenue for public expenditure and achieving social justice. Where, for instance, households are grouped by the earnings status of household members or by the gender composition of the adults in the household - it may not be possible to achieve both horizontal and vertical equity.

*Caren Grown and Imraan Valodia (editors). Taxation and Gender Equity. A Comparative Analysis of Direct and Indirect Taxes in Developing and Developed Countries. Routledge 2010*

### Personal income tax

Personal income tax (PIT) is generally the tax policy instrument of choice for establishing progressivity in the tax structure and to help reduce inequalities. In order for progressivity to be truly effective, the progressive tax rates need to be applied to the individual's global income, i.e., the aggregate of

---

#### country

- 142 AfDB (2010) Domestic Resource Mobilization for Poverty Reduction in East Africa
- 143 Hamilton, Bob; Kuo, Chun-Yan; and Poddar, Satya N., "Considerations for the Tax Mix." *Osgoode Hall Law Journal* 26.2 (1988) : 259-285. <http://digitalcommons.osgoode.yorku.ca/ohlj/vol26/iss2/2>
- 144 Lustig N et al, 'The impact of Taxes and Social Spending on Inequality and Poverty in Argentina, Bolivia, Brazil, Mexico, Peru, and Uruguay.' *Public Finance Review*, 42, no. 3 (2014): 287-303, which compared the impact of the relative composition of revenues, incidence of taxes and benefits, and Gini ratings.

all types of income and from all sources earned during a year. To help reduce inequality, countries should stay away from schedular taxation, where different sources of income (dividend, interest, rent, profit, salary) are taxed independently at different flat rates making progressivity inoperable. Such systems allow high income taxpayers to shift income from one type to the other, depending on where the flat rates are lower. Also, schedular systems typically have a final withholding of tax on the respective incomes, thus making aggregation of incomes meaningless. Some countries have a hybrid system where progressive rates are applied for wage income, and schedular flat rates for dividend, interest and rental incomes. These tax policy choices should be discouraged as they further exacerbate income inequality by increasing the tax burden on labor and reducing the tax burden on capital incomes, which are typically earned by the rich.

Where the PIT tax base is very limited (most likely in the least developed countries), other measures will be necessary to ensure progressivity and fairness in the tax system.

### **Strengthening progressivity beyond PIT**

Beyond PIT, it is the overall progressivity of the tax system that matters as opposed to the progressivity of just PIT. Accordingly, it is desirable to introduce or strengthen progressivity beyond PIT. For instance, a new trend in some Baltic countries has been to move away from corporate income taxation (CIT) based on annual business profit to a tax on distributed profit. This compromises the neutrality of CIT and makes the system highly regressive, since owners of capital can postpone paying taxes indefinitely until they decide to distribute their profits. This runs counter to SDG 10 and needs to be discouraged.

Another aspect to consider is that, while PIT is by far the most progressive tax in the OECD Member countries, deadweight losses increase with the level of tax rates, meaning that highly progressive rates can result in large deadweight losses. Finally, if many taxpayers have capital income but no labor income, the tax system will only have a strong progressive effect if taxes on capital income, in addition to labor taxes, are progressive. Thus, improving progressivity to other taxes, but at mildly progressive rates, can have the effect of enhancing both efficiency and equity.

Recent innovations in fiscal impact studies, which examine both expenditure and tax (revenue) policy holistically to understand the full impact of fiscal policies on income, poverty and inequality, can be effective in providing insights on true progressivity in a fiscal system (see box below)<sup>145</sup>

<sup>145</sup> Rodriguez, L., & Wai-poi, M. (2021). *Fiscal Policy, Poverty and Inequality in Jordan: The Role of Taxes and Public Spending*. World Bank, Poverty and Equity Global Practice, 1–26.

Analyzing the benefits from different taxes (income tax and GST) and spending is important to understand how fiscal policy is affecting poverty and inequality. The recent expansion of social assistance programs (cash transfers and social assistance for electricity and water, education and health) is making Jordan's fiscal policies more equalizing which would both close the fiscal gap while reducing poverty and inequality. Inequality, as measured by the Gini Index, falls 5.8 points between household market incomes and post-fiscal incomes (after paying income and consumption taxes as well as receiving government transfers and subsidized services).

### Removing tax expenditures that are not well-targeted at redistributive goals

Scaling back tax expenditures that are not well-targeted at redistributive objectives may help achieve both greater efficiency and a narrower distribution of disposable income. Cost-benefit and incidence analyses are critical before any tax expenditure is introduced. Tax bases should be broadened first by removing or reducing tax expenditures that disproportionately benefit high income groups. As mentioned above, raising marginal PIT and other marginal tax rates on high earners might not bring in much additional revenue, because of the effects on work intensity, tax avoidance and other behavioral responses. Instead, the focus should be on raising average rates without raising marginal rates by removing tax expenditures that primarily benefit the wealthy. Examples of such tax expenditures/incentives in PIT include deduction of interest on mortgage loans for PIT, preferential rates for incomes from dividend and capital gains, deduction for certain pass-through business income such as income from partnerships, and property tax exemption for golf courses.<sup>146</sup>

### Taxing immovable property and wealth

Annual taxes on immovable property are not only efficient but can also be designed in an equitable way. Governments could consider taxing land at higher rates because a land tax is efficient and land ownership is likely concentrated amongst wealthier households. Alternatively, governments could consider taxing immovable property jointly with (or at similar rates as) other household savings. The distributional impact of annual taxes on immovable property will also depend on ownership rates across the population, the actual value of property and the distribution of property values, the accuracy of the valuation and the extent to which the tax is capitalized in house prices and rent.

Wealth inequality has been growing significantly over the last few decades. The world average Gini coefficient on wealth has increased from 0.804 in 2008 to 0.904 in 2018.<sup>147</sup>, <sup>148</sup>A higher Gini coefficient

146 Chuck Marr, Samantha Jacoby and Kathleen Bryan. *Substantial Income of Wealthy Households Escapes Annual Taxation Or Enjoys Special Tax Breaks*. Center on Budget and Policy Priorities, Washington DC. November 13, 2019. <https://www.cbpp.org/research/federal-tax/substantial-income-of-wealthy-households-escapes-annual-taxation-or-enjoys>

147 James B. Davies, Susanna Sandström, Anthony Shorrocks, and Edward N. Wolff. *The Level and Distribution of Global Household Wealth*. National Bureau of Economic Research. April 2008.

148 "Global Wealth Databook 2018" (PDF). Credit Suisse. 2020

on wealth indicates higher wealth inequality while a hypothetical coefficient of 1 can arise in a situation where everybody has zero wealth except for one individual receiving all the income. Greater wealth accumulation and wealth inequality occurs when the average rate of return on capital (interest, dividend, rent, profit) is higher than the rate of economic growth. Wealth inequality can be reduced by introducing a progressive tax on net wealth. It is a better measure of the ability of wealthy taxpayers to pay taxes and to contribute to the common good.<sup>149</sup>

Although an annual property tax is a form of wealth tax for many people whose largest asset is a house, for the top ten percent of the population, real estate forms a tiny share of their net worth. For the world's high net worth individuals, i.e., individuals owning liquid assets of at least \$1 million which form 0.25 percent of the global population, global total assets amount to USD 74 trillion, with real estate accounting for only about 14.6 percent of total assets, the others being cash equivalents, private holdings, public holdings and alternative investments.<sup>150</sup> The bulk of their assets are not taxed. The tax administration can play a role in focusing attention on High Net Worth Individuals (HNWI). HNWI Compliance program consists of an interaction between tax policy, tax administration capabilities, and political will and readiness.

### **Strengthening inheritance tax**

There is a pro-inclusive growth case for strengthening inheritances taxes. Not only are inheritance taxes less distortionary than personal and corporate income taxes, but they can help achieve intergenerational equity goals and greater market income equality. By reducing and dispersing wealth holdings on death, taxes on inheritances and gifts can play an important role in strengthening equality of opportunity and limiting inter-generational inequality. Inheritance taxes can also contribute to reducing disincentives to work and thereby promote greater market income equality.

Inheritance taxes can therefore be justified to enhance equality of opportunity. By breaking down the concentration of wealth and correcting for factors that are beyond recipients' control, inheritance and gift taxation can contribute to levelling the playing field across individuals, and thereby increase equality of opportunity and improve social mobility. From a meritocratic perspective, inherited wealth should be taxed at higher rates than earned income and self-made wealth.<sup>151</sup>

An inheritance tax, particularly a progressive one, would also enhance vertical equity. According to the vertical equity principle, taxpayers with a greater ability to pay tax should pay relatively more tax. By taxing wealth transfers, particularly at progressive rates, an inheritance tax ensures that those who receive more wealth pay more tax. In fact, inheritance taxes are often among the most progressive elements of countries' tax systems although effective progressivity is often lowered by the way inheritance and gift taxes are designed.<sup>152</sup>

149 Thomas Piketty (2015). *Capital and Wealth Taxation in the 21<sup>st</sup> Century*. National Tax Journal. June 2015, 68 (2), 449–458

150 World Wealth Report 2020. Capgemini Research Institute 2020.

151 Piketty, T., E. Saez and G. Zucman (2013), *Rethinking capital and wealth taxation*.

152 Piketty, T. and E. Saez (2007), *How Progressive is the U.S. federal tax system? A historical and international perspective*. <http://dx.doi.org/10.1257/jep.21.1.3>

### 13.3 Performance measurement framework for Target 10.4

The custodian agency for Indicator 10.4.2 is the **World Bank**. This is a Tier II indicator.

Table 10.1 sets out the criteria for scoring the dimensions and sub-dimensions of Target 10.4.

**Table 10.1. Performance Measurement Framework for target 10.4**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 10.4</b> <i>Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality</i>	Indicator 10.4.2 Redistributive impact of fiscal policy	<b>G10-D1: Monitoring income inequality</b>	<b>Sub-dimension 1:</b> Level of income inequality as measured by the Gini coefficient. <i>(World Bank data)</i>	A	The Gini income coefficient is less than or equal to 30.0
				B	The Gini income coefficient is greater than 30.0 and up to 40.0
				C	The Gini income coefficient is greater than 40.0 and up to 50.0
				D	The Gini income coefficient is greater than 50.0
		<b>G10-D2: Depth of progressivity in income taxation</b>	<b>Sub-dimension 1:</b> Extent of progressivity in personal income tax (PIT).	A	i. The PIT base, i.e., the total taxable income, includes the aggregate of all incomes from all sources. ii. There are four or more income brackets from lower to higher taxable incomes. iii. There are progressively higher marginal rates for higher income brackets. iv. There is no schedular or flat tax rates for different income types and there is no final withholding.



Target	Indicator	Dimension	Sub-dimension	Score	Criteria
					<ul style="list-style-type: none"> <li>v. Taxpayers are required to file annual PIT declaration, aggregating incomes from all sources and applying the appropriate progressive rate.</li> <li>vi. The tax administration conducts periodic fiscal impact analysis to evaluate the progressivity of the entire system, including through subsidies to the poor.</li> </ul>
				B	<ul style="list-style-type: none"> <li>i. The PIT base, i.e., the total taxable income, includes the aggregate of income from all sources except capital gains.</li> <li>ii. There are three or fewer income brackets.</li> <li>iii. Same as A (iii).</li> <li>iv. Same as A (iv) except that there may be a separate schedular system for taxation of capital gains income with flat tax rate.</li> <li>v. Same as A (v).</li> </ul>
				C	<ul style="list-style-type: none"> <li>i. The PIT base, i.e., the total taxable income, includes the aggregate of income from salary, rent and business profit, but not from capital gains, dividend or interest.</li> <li>ii. There are three or fewer income brackets.</li> </ul>

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
					<ul style="list-style-type: none"> <li>iii. Same as A (iii) except that marginal progressive tax rates apply only to salary, business profit and rental incomes.</li> <li>iv. Same as B (iv) except that there may be separate schedular system for taxation of capital gains, interest, and dividend with flat tax rates and final withholding.</li> <li>v. Taxpayers are required to file annual PIT declaration only in respect of incomes on which there is no final withholding of tax.</li> </ul>
				D	PIT is almost entirely schedular. Income from salary may, or may not, be taxed at a flat rate.
			<b>Sub-dimension 2:</b> Neutrality of corporate income tax.	A	<ul style="list-style-type: none"> <li>i. CIT is based on the annual accounting profit of the business with adjustments for allowable deduction under the tax law.</li> <li>ii. CIT has a single tax rate which is aligned with the highest marginal rate for PIT.</li> <li>iii. Companies file an annual CIT declaration but pay quarterly estimates of advance tax.</li> </ul>
				B	<ul style="list-style-type: none"> <li>i. Same as A (i)</li> <li>ii. Same as A (ii) except that the single rate may not be aligned to the highest marginal rate for PIT.</li> <li>iii. Same as A (iii).</li> </ul>

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
				C	<ul style="list-style-type: none"> <li>i. Same as A (i).</li> <li>ii. Same as A (ii) except that there may be more than one rate for companies with different turnover and the rates may not be aligned to the highest marginal rate for PIT.</li> <li>iii. Companies may be required to file quarterly declarations for CIT.</li> </ul>
				D	Companies are not taxed on their adjusted annual profits but only on distributed income (dividend), whenever distribution occurs.
			<b>Sub-dimension 3:</b> Extent of targeting tax expenditure to redistribution goals.	A	<ul style="list-style-type: none"> <li>i. The ministry of finance or the tax administration monitors annually the level of tax expenditure for all national taxes.</li> <li>ii. The ministry of finance, parliament and/or tax administration conducts periodically (every 3 to 5 years) a cost-benefit analysis and rationalization of different tax incentives to determine their usefulness and whether they are fit for purpose with reference to SDGs).</li> <li>iii. Most incentives that do not have a redistribution role and those that disproportionately benefit the rich are removed.</li> </ul>

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
				B	<ul style="list-style-type: none"> <li>i. Same as A (i) and A (ii)</li> <li>ii. Only some of the incentives that do not have a redistribution role or those that disproportionately benefit the rich are removed.</li> </ul>
				C	<ul style="list-style-type: none"> <li>i. Same as A (i)</li> </ul>
				D	No monitoring of tax expenditure is conducted.
		<b>G10-D3: Scope of taxation of wealth and inheritance</b>	<b>Sub-dimension 1: Extent to which wealth and inheritance are subject to tax.</b>	A	<ul style="list-style-type: none"> <li>i. The country levies a tax on wealth of individuals that includes all assets (financial, physical and digital) above a sufficiently high wealth threshold.</li> <li>ii. The wealth tax is levied at progressive rates, considering the type and liquidity of assets.</li> <li>iii. There is an inheritance tax on all inheritance, with effective mechanisms in place to prevent tax avoidance and evasion.</li> <li>iv. The inheritance tax is levied at progressive rates and the tax administration has the capacity to accurately value inherited assets.</li> </ul>

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
					<ul style="list-style-type: none"> <li>v. The tax administration has in place a HWI compliance program and has the capacity to handle HWI cases.</li> <li>vi. The tax administration effectively uses technology for wealth and inheritance tax collection, including advanced analytics for tax compliance and digital tools for asset valuation.</li> <li>vii. The wealth and inheritance tax systems are designed and implemented considering their potential on income and wealth inequality, and regularly reviewed for their effectiveness in reducing inequality.</li> </ul>
				B	<ul style="list-style-type: none"> <li>i. Same as A (i)</li> <li>ii. The wealth tax is levied at a flat rate without differentiation based on type and liquidity of assets.</li> <li>iii. Same as A (iii)</li> <li>iv. The inheritance tax is levied at a flat rate with low capacity for asset valuation.</li> <li>v. The tax administration is in the process of establishing HWI compliance program.</li> </ul>

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
					vi. The tax administration is in the process of utilizing technology for wealth and inheritance tax collection, including advanced analytics for tax compliance and digital tools for asset valuation.  vii. Same as A (vii) except that reviews for effectiveness in reducing inequality are not yet fully established or are irregular.
				C	There is an inheritance tax OR a wealth tax which is levied at a flat rate. There is no HWI compliance program in place.
				D	Criteria for a C score are not met.

*Enhancing representation and voice for developing countries in global taxation institutions and dialogue*

### 13.4 Performance measurement framework for Target 10.6

The custodian agency for Indicator 10.6.1 is **Financing for Sustainable Development Office (FSDO), United Nations Department of Economic and Social Affairs (UN-DESA)**. This is a Tier I indicator.

Table 10.2 sets out the criteria for scoring the dimensions and sub-dimensions of Target 10.6.

**Table 10.2. Performance Measurement Framework for Target 10.6**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<p><b>Target 10.6</b> <i>Ensure enhanced representation and voice for developing countries in decision-making in global international economic and financial institutions in order to deliver more effective, credible, accountable and legitimate institutions</i></p>	<p>Indicator 10.6.1 Proportion of members and voting rights of developing countries in international organizations</p>	<p><b>G10-D4: Scope of representation in decision making and international tax cooperation</b></p>	<p><b>Sub-dimension 1:</b> Level of participation in international organizations for tax cooperation</p>	<p>A</p>	<ul style="list-style-type: none"> <li>i. The country is an active member of inclusive and representative international organization for tax cooperation (such as the Global Forum Inclusive Framework (GF-IF), Addis Tax Initiative (ATI) and UN Tax Committee.</li> <li>ii. The country has attended and actively participated in all main tax meetings (working party and annual meetings, OECD, UNGA, IMF, World Bank and regional development organizations, etc.) in the last 5 years</li> <li>iii. The country has voted on the major international tax cooperation decisions in the last 5 years.</li> <li>iv. The country has utilized and benefitted from World Bank projects related to any of the SDGs in the last 3 years</li> <li>v. The country has contributed significantly to the development of policy recommendations or guidelines in international tax forums in the last 5 years</li> <li>vi. The country has established and maintained cooperative initiatives with NGOs on international tax issues in the last 5 years, demonstrating its commitment to multi-stakeholder engagement in policy making</li> </ul>

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
				B	<ul style="list-style-type: none"> <li>i. The country is a member of inclusive and representative international organization for tax cooperation (such as the GF-IF, ATI and UN Tax Committee).</li> <li>ii. The country has attended and participated in some of the main tax meetings (working party and annual meetings, OECD, UNGA, IMF, World Bank and regional development organizations, etc.) in the last 5 years, but its participation is infrequent.</li> <li>iii. The country has voted on the some of the major international tax cooperation decisions in the last 5 years, indicating limited engagement in the global decision making process.</li> <li>iv. The country has established cooperative initiatives with NGOs on international tax issues.</li> </ul>
				C	<ul style="list-style-type: none"> <li>i. The country is a member of inclusive and representative international organization for tax cooperation (such as the GF-IF, ATI and UN Tax Committee).</li> </ul>



Target	Indicator	Dimension	Sub-dimension	Score	Criteria
					ii. The country has occasionally attended in some of the main tax meetings (working party and annual meetings, OECD, UNGA, IMF, World Bank and regional development organizations, etc.) in the last 5 years, but its participation is infrequent. iii. The country has occasionally voted on the major international tax cooperation decisions in the last 5 years, indicating limited engagement in the global decision making process. iv. The country is in the process of establishing cooperative initiatives with NGOs on international tax issues.
				D	Criteria for a C score are not met.

*Reducing inequality across countries: Differential treatment of developing countries in trade to encourage access to export markets*

Differential treatment constitutes an instrument to bring about substantive equality in an international community made up of unequal states but organized according to the principle of sovereign equality. The WTO agreements contain special provisions which give developing countries special rights and allow other members to treat them more favorably. These are “special and differential treatment provisions”.

The special provisions include:

- longer time periods for implementing agreements and commitments
- measures to increase trading opportunities for these countries

- provisions requiring all WTO members to safeguard the trade interests of developing countries
- support to help developing countries build the infrastructure to undertake WTO work, handle disputes, and
- implement technical standard provisions related to least-developed country (LDC) members

From 1990 to 2017, developing countries increased their share of global exports from 16 percent to 30 percent; in the same period, the global poverty rate fell from 36 percent to 9 percent. Not all countries have benefited equally, but overall, trade has generated unprecedented prosperity, helping to lift some 1 billion people out of poverty in recent decades.<sup>153</sup>

Trade leads to faster productivity growth, especially for sectors and countries engaged in global value chains. These links allow developing countries to specialize in making a single component, like a keyboard, rather than a finished product, like a personal computer.

Unfortunately, trade disputes and restrictions have weakened the rules-based global trading regime centered on the World Trade Organization (WTO). Smaller developing economies cannot be self-sufficient and need to export to import. They critically need to be able to compete at fair terms, a capacity that trade distortive subsidies and protectionist policies will hurt. To attract investment, they also critically need the certainty provided by a credible and coherent system of global trade rules. Furthermore, many developing countries don't have the fiscal resources to counter steps taken by advanced countries to subsidize domestic production.

The World Bank estimates that a slump in investor confidence due to increased trade tensions among major players could push 30-50 million people into poverty by 2023, depending on the severity of the protectionist policies in place by advanced and developing economies.

*World Bank Brief. February 2023*

### 13.5 Performance measurement framework for Target 10.a

**Custodian agencies** for Indicator 10.a.1 are the **ITC, United Nations Conference on Trade and Development (UNCTAD) and WTO**. This is a Tier I indicator.

Table 10.3 sets out the criteria for scoring the dimensions and sub-dimensions of Target 10.a.

<sup>153</sup> World Bank. *Trade Has Been a Powerful Driver of Economic Development and Poverty Reduction*. World Bank Brief. February 2023

**Table 10.3. Performance Measurement Framework for Target 10.a**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<p><b>Target 10.</b>  <i>a Implement the principle of special and differential treatment for developing countries, in particular least developed countries, in accordance with World Trade Organization agreements</i></p>	<p>Indicator 10.a.1                      Proportion of tariff lines applied to imports from least developed countries and developing countries with zero-tariff</p>	<p><b>G10-D5:                      Scope of differential treatment for developing and least developed countries to build their trade capacity</b></p>	<p><b>Sub-dimension 1:</b> Extent of free access of developing countries and LDCs to developed country markets</p>	A	At least 80% of products originating in the country are given preferential treatment (zero or low duties) on imports to developed countries (in conformity with GSP).
				B	At least 60% of products originating in the country are given preferential treatment (zero or low duties) on imports to developed countries (in conformity with GSP).
				C	At least 40% of products originating in the country are given preferential treatment (zero or low duties) on imports to developed countries (in conformity with GSP).
				D	Criteria for a C score are not met.

## 14. Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable

### 14.1 Background and good practices

Considering the rapid urbanization and growing public spending needs for making cities safe, inclusive, resilient and sustainable, municipal governments in developing countries are often ill-prepared to meet the challenge. Almost all developing countries suffer from serious vertical imbalances, with local government expenditure far exceeding revenue. Consequently, cities have relied heavily on transfers from central governments and borrowing to fill their large fiscal gaps.<sup>154</sup> Moreover, many countries suffer from substantial horizontal (geographical developmental) imbalances. For example, in Djibouti, while the average poverty rate in the country is 19 percent, the extreme poverty rate in the rural areas is 62.6 percent.<sup>155</sup>

To prepare cities to tackle their particular challenges (which may be location-specific), experts have long advocated for fiscal decentralization to provide municipal governments sufficient autonomy for efficient local resource mobilization. An appropriate level of fiscal decentralization can enhance the accountability of municipal governments for local economic development and the delivery of public goods and services by increasing their dependence on local taxpayers for revenue rather than on transfers from the central Government.

Effective government accountability and transparency in the collection and use of taxpayer monies is not a given, but bringing taxing powers closer to the population invites a closer engagement between local authorities, who are often perceived as more accessible and relevant to local citizens.<sup>156</sup> Moreover, local governments in general will have a stronger understanding of local development priorities, and will likely be able to better balance revenue mobilization with equity considerations than a centrally administered tax.<sup>157</sup> Finally, local governments are better positioned to identify and gather information regarding property owners and businesses operating locally.

154 Subhanij, Tientip; Shuvojit Banerjee and Zheng Jian (2018). *Tax policy for sustainable development in Asia and the Pacific*. United Nations ESCAP. 2018

155 World Bank, *Djibouti Economic Update 2021*; World Bank, *Poverty and Equity Brief*, Djibouti, April 2020

156 See, for example: Guyer, J. (1992) 'Representation Without Taxation: An Essay on Democracy in Rural Nigeria: 1952-1990', *African Studies Review* 35.1: 41–79; Smoke, P.L. (2013) "Why Theory and Practice Are Different: The Gap Between Principles and Reality in Subnational Revenue Systems", Atlanta: Andrew Young School of Policy Studies, Georgia State University; van den Boogaard, V. Prichard, W., Beach, R. and Mohiuddin, F. (2022) 'Enabling Tax Bargaining: Supporting More Meaningful Tax Transparency and Taxpayer Engagement in Ghana and Sierra Leone', *Development Policy Review* 40.

157 Mikesell. (2003). *International Experience with the administration of local taxes: A Review of Practices and Issues*. Presentation to the World Bank Thematic Group on Taxation and Tax Policy

## 14.2 Desired outcome

The desired outcome for Goal 11 that can be supported by tax interventions is enunciated in Target 11.a and the corresponding outcome indicator in 11.a.1.

**Target 11.a** *Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning*

### Subnational revenues

Subnational revenues are typically generated from property taxes, vehicle taxes, administrative user fees for public goods and services such as water and sanitation, market fees, operating and business licenses, levies on the sales of firm assets, betterment charges, “nuisance taxes” etc. Many of these are not economically efficient and often there is limited coordination between various levels of government with respect to taxes imposed and rationalization with development priorities.<sup>158</sup> Moreover, some municipal user charges and fees, particularly in rural areas and among informal actors can be costly, even outweighing the taxes mobilized, so careful consideration should be given to the design, efficiency and feasibility of local taxes which must be administered in a context of often limited local capacity.<sup>159</sup> In accordance with the principles of tax assignment, local taxes should be based on the types of tax instruments which are imposed solely on local residences; are simple for a local government to administer; and do not create issues of competition or harmonization between subnational governments, or between local and central governments (or invite “tax shopping” by firms).<sup>160</sup> Property tax is generally understood to be one of the few tax instruments with significant potential for local revenues which passes these three tests.<sup>161</sup>

Despite this positive rationale, establishing productive property tax in developing countries has proved difficult. In low-income countries property taxes represent an average of 0.04 percent of GDP in tax revenue; 0.3 percent in lower-middle income countries, and 0.4 percent in upper-middle income countries compared to 1.22 percent in high income economies and 3.37 percent of GDP in North America.<sup>162</sup>

There are a number of challenges which partially explain why property taxes are not more widely adopted and do not offer more robust revenues for local governments. One challenge is the cultural aspect: in many societies, property rights are understood as ancestral and inalienable, and as such,

158 Fjeldstad, O.H., Chambas, G., Brun, J.F. (2014). *Local Government Taxation in Sub-Saharan Africa: A Review and An Agenda for Research*. Chr. Michelsen Institute (CMI). Working paper 2014:2.

159 Van den Boogaard, V., and R. Beach (2023). “*Tax and governance in rural areas: The implications of inefficient tax collection.*” *Journal of International Development*. 2023:1–21; Prichard, W. and van den Boogaard, V. (2017) “*Norms, Power and the Socially Embedded Realities of Market Taxation in Northern Ghana*”, *African Studies Review* 60.1: 171–94; Juul, K. (2006) “*Decentralization, Local Taxation and Citizenship in Senegal*”, *Development and Change* 37.4: 821–46; Beach, R. (2018). *The Hunt for Revenues in a Poor State*. PhD thesis, Aarhus: Politica.

160 Bahl, R. and Bird, R. (2008) ‘*Subnational Taxes in Developing Countries: The Way Forward*’, *Public Budgeting & Finance* 28.4: 1–25; Musgrave, R.A. (1998) ‘*Who Should Tax, Where, and What?*’ *International Library of Critical Writings in Economics* 88: 63–80.

161 Bahl, R. and Bird, R. (2008) ‘*Subnational Taxes in Developing Countries: The Way Forward*’, *Public Budgeting & Finance* 28.4: 1–25; Musgrave, R.A. (1998) ‘*Who Should Tax, Where, and What?*’ *International Library of Critical Writings in Economics* 88: 63–80.

162 Source: <https://data.oecd.org/tax/tax-on-property.htm>

charging an owner a tax on something the government can lay no claim to seems illogical. Similarly, imposing a tax on a family's residence (which generates no income for them), rather than on an income source or sale of a good, is not always socially well-accepted. Moreover, in many cultures, particularly in Sub-Saharan Africa, customary rights often imply layered and intersecting types of use rights – usufruct rights, waterway rights, etc. which may be lost if there is an effort to identify, register and secure tenure for an individual property owner.<sup>163</sup> Property taxes are generally intended, however, to finance the local provision of public goods and services (enjoyed by the occupants of the property), which is not well understood. Where the link to public services is recognized, the visibility of the tax can create another political obstacle as taxpayers often expect equally visible improvements in public services, which may not be forthcoming or are difficult to deliver. Challenges also stem from practical aspects: property taxes require fairly substantial administration – in identifying, registering properties, and clarifying ownership; in employing a valuation methodology which is feasible, well-structured to capture the increasing value and use of the property, and for which sufficient data is available; and identifying effective and efficient collection methods – particularly where local politicians are reticent to press for greater compliance. Effective property tax regimes also require valuations to be updated frequently which may be resource-consuming: financially prohibitive (depending on the methodology) and technical.

There is an urgent need for a more consolidated strategy for city finance, rather than fragmented and temporary measures, to sustain urbanization in the region and support healthy urban development. For metropolitan cities, which have much stronger potential in their local tax bases and greater spending responsibilities, it might be helpful to move the taxation powers closer to the local level and allow metropolitan city governments greater fiscal autonomy, in contrast to more rural areas and smaller cities. One of the main arguments for stronger own-source revenue mobilization is that it increases the accountability of officials in financing local public services by levying taxes on residents. As a general principle, metropolitan local governments need to have greater authority to levy certain new taxes and charges, and at the same time they must be required to use these powers to finance their budgets. Intergovernmental transfers to metropolitan local governments should ideally be limited to covering the cost of benefits that spill over the boundary of the metropolitan areas.

Finally, it is evident that vacant land and vacant residential units is a problem in many cities – e.g. in the Gulf (vacant land) and Jordan, Lebanon and Egypt (residential units) and other countries in the Middle East, representing sometimes up to 75 percent of the urban footprint – where property tax policies often disincentivizes efficient use of limited available urban properties.<sup>164</sup> For example, in many contexts, tax policy exempts vacant residential units from property taxation. Vacant apartments and homes, often in disrepair, some with historical and cultural significance, drive down the prices for neighboring residences. Moreover, remaining green spaces may be left fallow as unused, in accessible private property (or without clear ownership), without incentives to encourage protecting

163 Chimhowu, Admos & Phil Woodhouse. 2006. *Customary vs Private Property Rights? Dynamics and Trajectories of Vernacular Land Markets in Sub-Saharan Africa*. Journal of Agrarian Change. May 2006. <https://doi.org/10.1111/j.1471-0366.2006.00125.x>; Toulmin, C. (2008). *Securing land and property rights in sub-Saharan Africa: The role of local institutions*. *Land Use Policy*, 26(1), 10–19. <https://doi.org/10.1016/j.landusepol.2008.07.006>

164 Corsi, A. and Selod, H. (2023). "[Land Matters. Can Better Governance and Management of Scarcity Prevent a Looming Crisis in the Middle East and North Africa?](#)" World Bank.

these spaces as the remaining green lungs of a city, which could be developed into parks and make outdoor urban spaces available to the wider public.<sup>165</sup>

Linked to the issue of unused land is the value of betterment. Betterment is the increased value of real property from causes other than investment made by the property owner. It is, therefore, usually referred to as unearned increment or windfall gain. When, for instance, a property is rezoned for higher value uses, or nearby public improvements raise the value of a piece of private land, a property owner is “bettered” due to the actions of others. Because of this, capturing the value of betterment for the public through taxation or other means is a common policy approach. These charges should at least be equal to the present value of all the costs that the new establishment will impose on the city if it locates in a specific district. A betterment levy or tax can divert from the owner of the property the betterment due to planning and zoning changes.

There are three common ways to capture betterment from rezoning for the public good.

1. A betterment levy or tax can divert from the owner of the property the betterment due to planning and zoning changes.
2. Using a public agency to purchase unzoned and undeveloped land, then rezoning and investing in local infrastructure can ensure that all betterment from the rezoning and infrastructure investment is captured by the public.
3. Auctioning or selling rights to develop to higher value uses.

#### *Subnational fiscal autonomy and increasing use of local taxes*

While reforms in fiscal decentralization laws are critical, these are within the domain of intergovernmental fiscal relations. Fiscal autonomy for subnational governments is essential to ensure that they can deliver essential public goods and services to local communities. Autonomy may imply freedom in setting tax rates for subnational taxes which have been nationally legislated, or in the design and enforcement of own-source revenues. A key objective here would be to better align locally generated fiscal resources with the subnational mandates assigned to the local authority. Autonomy, however, should be carefully balanced with safeguards to ensure that local government DRM strategies are well-aligned with development priorities, e.g., borrowing where authorized within the approved regulatory framework, addressing inequality and protecting vulnerable groups in society. In consideration of the localization of SDGs and financing local development priorities, local fiscal resources must be sufficiently robust to cover capital expenditures and finance development projects in addition to recurrent expenditures.

<sup>165</sup> Kim, Gunwoo (2016). “*The Public Value of Urban Vacant Land: Social Responses and Ecological Value.*” Sustainability 2016, 8(5). 486; And related: Accordino, J.; Johnson, G.T. *Addressing the vacant and abandoned property problem.* J. Urban Aff. 2000, 22, 301–315.; Kamvasinou, K. *The public value of urban vacant land.* Proc. ICE Munic. Eng. 2011, 164, 157–166.

In particular, capitalizing on the potential of property taxes will also be essential to augmenting local fiscal resources. Underutilized property tax tools are an important challenge in many developing countries. While the OECD average for property tax collection is 1.9 per cent of GDP, most developing countries collect much less than one percent of GDP (Africa 0.3 percent and Latin America 0.8 percent). Care analysis should be taken undertaken to limit the negative impact of tax competition between local jurisdictions to attract investment, since this results in a harmful “race to the bottom” that affects local revenues.

### Property taxes and valuation methodologies

Many developing countries have inefficient, paper-based decentralized property registries, limited market-based data on property values, outdated cadasters, as well as customary or informal land governance systems. Careful analysis, practical planning which ensures that property tax regimes are feasible to be implemented by the relevant authority, as well as targeted property tax interventions and valuation approaches for highly developed commercial districts and dense urban areas can offer real local DRM potential. Caution is required here, however, as the assignment of free-hold tenure and private property rights (in the interest of improving the efficiency of property taxes) can serve to exclude customary, usufruct and other land-rights from vulnerable groups in some social contexts.<sup>166</sup> Careful analysis and targeted interventions on property taxes (e.g., perhaps focused on highly developed commercial districts and dense urban areas) can offer real local DRM potential in some contexts. Recurrent taxes on immovable property are the least distortive tax. In general, a more efficient utilization of local taxes is generally tied to improved service delivery to citizens. Efficient local taxes should, therefore, be an important part of the efforts to build fiscal capacity and to improve state-citizen relationships. In many countries local tax systems are critical to ensure that public services reach more people.

Potential valuation methodologies include Market Value and Market-Informed Valuations, Computer-Assisted Mass Appraisal Options, Area-Based Assessments, Zone Banding, Formula or Points-Based systems, etc. Market Value systems function well in economies where properties are generally all formally registered, and property sales take place through formal channels and are readily accessible as price-reference points. Such transparent property market data is rarely available in developing countries, where many properties are bought and sold informally and property registration is rarely digitized. Economies such as in Eastern Europe, which are transitioning from centrally planned economies towards market-oriented democracies face additional challenges in the proper functioning of these markets. Market-informed systems use data which is available and can at least offer insights into how market dynamics and aspects affect the value of a given property.<sup>167</sup>

In parallel, Computer-Assisted Mass Appraisal (CAMA) Options, which have become the standard tool employed in advanced western economies, are based on a price index for a class of real estate,

<sup>166</sup> Chimhowu, Admos & Phil Woodhouse. 2006. *Customary vs Private Property Rights? Dynamics and Trajectories of Vernacular Land Markets in Sub-Saharan Africa*. Journal of Agrarian Change. Citations: 155. May 2006. <https://doi.org/10.1111/j.1471-0366.2006.00125.x>

<sup>167</sup> Bahl, Martinez-Vazquez, and Youngman, Eds. (2008). *Making the Property Tax Work: Experiences in Developing and Transitional Countries*. Lincoln Institute of Land Policy.



from a representative sample of sold properties, weights are applied for marginal changes in physical and location features, which then informs estimated values for the entire class of properties. Recent innovations with geographic information systems (GIS) and low-level satellite technology have reduced the amount of data which needs to be collected on-site, making such approaches more accessible to developing countries.<sup>168</sup> Formula or Points-Based valuation systems are more straightforward, less complex and as such, can be more practical and effective for developing countries, as they rely less on publicly available market data while limiting the subjective judgement of the assessor, and offer more administrative simplicity and transparency.<sup>169</sup> (See Fish, 2018 for guidance on how to implement such a system.<sup>170</sup>)

Analyzing and assessing immovable property tax systems, diagnosing the strengths and weaknesses of such systems, and developing a property tax intervention strategy where needed, are important aspects to consider in strengthening subnational revenue resources. Well-designed property tax systems can support increasingly fair and stable tax systems in some low- and middle-income country contexts, with potential for sustainable improvements in achieving key revenue, equity, and efficiency objectives.<sup>171</sup>

### Vacant land tax

A carefully designed vacant land tax can be used to achieve several purposes: first to promote construction in urban areas for new residences, commercial and multi-use buildings, to alleviate housing shortages and provide commercial spaces. Tax incentives could be offered, in parallel to incentivize improvements to the land and making urban green spaces open for public use, with the effect of both preserving the cities “green lungs” and providing additional public outdoor spaces for healthy urban living. Finally, tax incentives, tax credits and rehabilitation abatements could be offered for the rehabilitation, restoration, and use of culturally important vacant, historical buildings.<sup>172</sup> A better option is to tax the owner of culturally important buildings if they do not improve the property based on its significance. Saudi Arabia is one example of a country that has experimented with vacant land taxes with some real success.<sup>173</sup>

168 For further discussion, see Bahl, Martinez-Vazquez, and Youngman, Eds. (2008). *Making the Property Tax Work: Experiences in Developing and Transitional Countries*. Lincoln Institute of Land Policy.

169 Ibid.

170 Fish, Paul. (2018). “[Practical Guidance Note: Training Manual for Implementing Property Tax Reform with a Points-Based Valuation](#).” International Centre for Tax and Development, Africa Tax Administration Paper No. 2.

171 Kelly, Roy; White, Roland; Anand, Aanchal. (2020). *Property Tax Diagnostic Manual*. World Bank, Washington, DC. <https://openknowledge.worldbank.org/handle/10986/34793>

172 E.g., see discussion in Kim, Gunwoo (2016). “[The Public Value of Urban Vacant Land: Social Responses and Ecological Value](#).” *Sustainability* 2016, 8(5), 486

173 Corsi, A. and Selod, H. (2023). “[Land Matters. Can Better Governance and Management of Scarcity Prevent a Looming Crisis in the Middle East and North Africa?](#)” World Bank.

Brazil has developed a system to stimulate conservation and other environmental measures at the subnational level. Under the ecological transfer program, the stat allocates a predetermined percentage of certain tax revenue to municipalities that meet certain environmental criteria. The intra-municipal competition generated by the programme provides an incentive for municipalities to focus on conservation measures, without increasing overall state expenditures.

*T. Falcão, Fiscal Policies to Mitigate Climate Change - National Report – Brazil, International Academy of Comparative Law. 2022*

### 14.3 Performance measurement framework for Target 11.a

The custodian agency for Indicator 11.a.1 is **UN-Habitat** and the partner agency is **UNFPA**. This is a Tier I indicator.

Table 11.1 sets out the criteria for scoring the dimensions and sub-dimensions of Target 11.a.

**Table 11.1. Performance Measurement Framework for Target 11.a**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 11.a</b> <i>Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning</i>	Indicator 11.a.1 Number of countries that have national urban policies or regional development plans that (a) respond to population dynamics; (b) ensure balanced territorial development; and (c) increase local fiscal space.	<b>G11.D1: Augmenting use of local taxes</b>	<b>Sub-dimension 1:</b> The extent to which local revenue sources are sufficient to finance local mandates and development priorities.	A	<ul style="list-style-type: none"> <li>i. Local governments have autonomy over setting rates for subnational taxes.</li> <li>ii. Local governments have autonomy over the administration and collection of local taxes.</li> <li>iii. There is active cooperation between the national government and subnational governments for the implementation of urban policies.</li> <li>iv. Municipal and state authorities are engaged in the policy discussions concerning the use of revenue resources at subnational level.</li> </ul>

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
					v. There is equitable representation by all regions in the country in the fiscal policy debate that is targeted towards subnational development.
				B	Any three of the criteria for an A score are met.
				C	Any two of the criteria for an A score are met
				D	Criteria for a C score are not met.
			<b>Sub-dimension 2:</b> Extent of use of property tax at sub-national level. Extent of use of fiscal cadaster and computer-assisted mass appraisal of real property.	A	<ul style="list-style-type: none"> <li>i. Property tax collections in the country overall account for 2 percent of GDP or more.</li> <li>ii. Property tax revenues are fully managed by, and accrue to, local government budgets.</li> <li>iii. There is a central registry for public and private land and property.</li> <li>iv. The land registry and cadaster are digitized.</li> <li>v. More than 90 percent of private and public land and property are registered in the two major cities.</li> <li>vi. More than 75 percent of private and public land and property in the entire country are registered.</li> <li>vii. Local property tax offices have full and complete access to property register and cadaster database.</li> <li>viii. Local property tax offices use a valuation methodology that effectively captures land and building values.</li> </ul>

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
					ix. Valuation of properties has been updated in the past five years.
				B	i. Property tax collections in the country overall account for 1 percent or more but less than 2 percent of GDP. ii. Any four of the criteria A (ii) to A (viii).
				C	i. Property tax collections in the country overall account for 0.5 percent or more but less than 1 percent of GDP. ii. Any two of the criteria A (ii) to A (viii).
				D	Property tax collections in the country overall account for less than 0.5 percent of GDP.
			<b>Sub-dimension 3:</b> Use of property tax on vacant land	A	i. Property tax is in place on vacant urban private land property to discourage non-use of urban land. ii. Property tax is in place on vacant built commercial and residential buildings to discourage extended vacancy of built-up property. iii. Tax incentives exist to promote the preservation of well-managed urban green spaces accessible to the public.

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
					iv. Tax incentives exist to promote the rehabilitation of historic and culturally significant vacant buildings. OR levy a tax on the owner if they do not rehabilitate culturally significant property.
				B	i. Same as A (i) and A (ii) ii. Any one of A (iii) or A (iv)
				C	Any two of criteria in A.
				D	The conditions of a C score are not met.

DRAFT



## 15. Goal 12: Ensure sustainable consumption and production patterns

**Goal 12 has synergies with Goal 13 (Climate Change) and should be examined together**

### 15.1 Background and good practices

There are many aspects of consumption that with simple changes can have a big impact on society as a whole. For example, the global material footprint – an indicator of the pressure put on the environment to support economic growth and to satisfy the material needs of people – grew by 17.4 per cent to 85.9 billion metric tons in 2017 as compared to 2010. Reducing food loss and waste can contribute to environmental sustainability by lowering production costs and increasing the efficiency of food systems. Currently, we lose 13.8 per cent after harvesting and during transport, storage and processing alone, amounting to a cost of over \$400 billion a year. Humans are polluting water faster than nature can recycle and purify water in rivers and lakes.<sup>174</sup> Countries need to do a cost benefit analysis of reducing post-harvest losses. A study done in Uganda to examine the cost and benefit of public measures to reduce post-harvest losses showed that losses of about 20 percent was optimal.<sup>175</sup>

Producers can find new solutions that enable sustainable consumption and production patterns. A better understanding of the environmental and social impacts of products and services is needed, both of product life cycles and how these are affected by use within lifestyles. Identifying “hot spots” within the value chain where interventions have the greatest potential to improve the environmental and social impact of the system as a whole is a crucial first step. Innovation and design solutions can both enable and inspire individuals to lead more sustainable lifestyles, reducing impacts and improving well-being.<sup>176</sup> Tax policy can influence production methods in a number of ways.

There are two main ways in which consumers can help: 1. Reducing waste and 2. Being thoughtful about what they buy, practicing more sustainable closed-loop consumption patterns and choosing goods and services produced with sustainable methods whenever possible. Not throwing away food and reducing consumption of plastic—one of the main pollutants of the ocean are important steps. Carrying a reusable bag, refusing to use plastic straws, and recycling plastic bottles are good ways to do your part every day. Making informed purchases also helps. For example, the textile industry today is the second largest polluter of clean water after agriculture. If we can buy from sustainable and local sources, we can make a difference as well as exercising pressure on businesses to adopt sustainable practices.<sup>177</sup>

<sup>174</sup> UN (2020). *Responsible Consumption and Production. Why it matters*. [https://www.un.org/sustainabledevelopment/wp-content/uploads/2019/07/12\\_Why-It-Matters-2020.pdf](https://www.un.org/sustainabledevelopment/wp-content/uploads/2019/07/12_Why-It-Matters-2020.pdf)

<sup>175</sup> Leonard Leung and Glenn P. Jenkins. *A Cost Benefit Analysis of Maize Production and Marketing in Uganda*. Queen's University, Kingston, Canada. Development Discussion Paper 2012-04

<sup>176</sup> UN (2020). *Responsible Consumption and Production. Why it matters*. [https://www.un.org/sustainabledevelopment/wp-content/uploads/2019/07/12\\_Why-It-Matters-2020.pdf](https://www.un.org/sustainabledevelopment/wp-content/uploads/2019/07/12_Why-It-Matters-2020.pdf)

<sup>177</sup> Ibid.

Throughout this SDG Tax Framework, a number of environmental taxes are outlined in related sections in addition to other taxes which promote more sustainable approaches to production and consumption. Many dimensions discuss taxation as a tool for influencing consumer and producer behavior. These dimensions, in addition to supporting the achievement of other Goals, will simultaneously help achieve the target mentioned with respect to Goal 12. For instance:

- Goal 2: several dimensions propose to use taxes to help achieve sustainable agricultural production and improve consumption of food for those vulnerable to food insecurity.
- Goal 3: several dimensions propose to use taxes to reduce consumption of alcohol and other substance that are deleterious to human health.
- Goals 7,13,14 and 15: several dimensions propose to use tax policy as an instrument to reduce carbon emission, reduce consumption of fossil fuel, reduce coastal pollution and marine eutrophication, encourage use of clean energy and to maintain a sustainable terrestrial ecosystem.

Accordingly, for this chapter, only some additional elements, not outlined elsewhere, are necessary to include here. These include reducing waste, promoting recycling and related closed-loop production and consumption approaches, as well as reducing food waste.<sup>178</sup>

## 15.2 Desired outcome

The additional desired outcome for Goal 12 that can be supported by tax interventions is enunciated in Targets 12.3 and 12.5 and the corresponding outcome indicators in 12.3.1 and 12.5.1.

**Target 12.3:** *By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses production and supply chain, including post-harvest losses.*

**Target 12.5:** *By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.*

### Tax policy's role in ensuring sustainable production and consumption

Taxes are an important tool for moderating consumer and producer behavior. Tax increases reduce consumer disposable income and consumer spending, causing a decline in autonomous consumption. Price levels are the final non-income determinant. Conversely, a reduction in income taxes increases disposable personal income, increases consumption and increases aggregate demand. Selective increase in taxes on commodities that are harmful for the environment, e.g., plastic bottles and plastic bags can encourage citizens to be more responsible in avoiding purchases of products that harm our environment.

Taxes can further be used for penalizing producers who do not close the loop on their materials input and byproducts and waste from the production process and consumption of those products. Such

<sup>178</sup> See the [OECD Policy Instruments for the Environment \(PINE\) database](#) for detailed country data on taxes, charges, DRS and subsidy schemes related to waste management (currently being updated).

approaches, where implementation is possible, place the onus on producers to reduce waste and promote closed-loop production and consumption, encouraging them to think through the entire life cycle of the products and services they offer. For example, the commonly accepted practice is the employment of a “polluter pays principle” according to which those who produce pollution should bear the costs of managing it to prevent damage to human health or the environment. For instance, a factory that produces a potentially poisonous substance as a by-product of its activities is usually held responsible for its safe disposal.

Tax policy can play a significant role in effective waste management including plastics. Proposed policy instruments to tackle waste and plastics prevention, reduction, reuse and recycling include bans or restrictions and extended producer responsibility (EPR) mechanisms such as a) Take-back systems, b) Product stewardship, c) Deposit refund schemes (DRS), d) Pay-as-you-throw (PAYT) schemes, e) Taxes on production, distribution and consumption, and f) Waste management service charges.<sup>179</sup> At least two of the five options employ tax policy instruments. One should not overlook the impact of a prohibition on certain activities a government might want to curb on the grounds of furthering environmental protection and making cities sustainable (SDG 11).

### Taxes to reduce food and biomass waste

Globally, an estimated 931 million tonnes of food waste were generated in 2019, 61 per cent of which came from households, 26 per cent from food service and 13 per cent from retail. In some countries, such as the United States, an estimated one-third of all food is wasted.<sup>180</sup> Per capita food waste is actually higher in lower income countries (e.g., 91 kg/capita/year in LMICs). In economic terms, in Europe, for example, this is equivalent to a loss of €143 billion each year.<sup>181</sup> An extensive number of studies have recognized the significant contribution food and biomass waste and the food chain places on the environment.<sup>182</sup> Food waste has many environmental impacts including land use demands, water depletion, aquatic eutrophication, eco and human toxicity, global warming, etc. The global warming impact of the avoidable food waste was quantified between 2000 and 3600 kg CO<sub>2</sub>-eq. t<sup>1</sup>. In other terms, fully 8-10 per cent of global greenhouse gas emissions are associated with food that is not consumed.<sup>183</sup> Using global statistics from FAO, Kummu et al. (2012) concluded that food waste represents an estimated 24% of the total use of cropland, freshwater resources, and fertilizers for food production.<sup>184</sup>

179 Réka Soós, Andrew Whiteman and Gabriela Gavgas (2022) “*The cost of preventing ocean plastic pollution.*” OECD Environment Working Paper No. 190; Cornago, E., P. Börkey and A. Brown (2021), “*Preventing single-use plastic waste: Implications of different policy approaches*”, OECD Environment Working Papers, No. 182, OECD Publishing, Paris, <https://dx.doi.org/10.1787/c62069e7-en>.

180 UNEP, 2021. *UNEP Food Waste Index Report 2021*. See also Gustavsson, J., Cederberg, C., Sonesson, U., van Otterdijk, R., Meybeck, A., 2011. “*Global Food Losses and Food Waste: Extent, Causes and Prevention.*” FAO, Rome, Italy.

181 Tonini et al (2018). “*Environmental impacts of food waste: Learnings and challenges from a case study on UK.*” Waste Management 76 (2018) 744–766.

182 FAO, EU, OECD, UN, WB (2014). “*System of Environmental and Economic Accounting (SEEA): Applications and Extensions*”; Environmental Impact of Products (EIPRO) (2006) Institute of Prospective Technological Studies, European Science and Technology Observatory and European Commission Joint Research Centre; Tonini, Albizzati and Astrup (2018). “*Environmental impacts of food waste: Learnings and challenges from a case study on UK. Waste Management.*” Vol. 76, 2018, Pages 744-766.

183 UNEP, 2021. *UNEP Food Waste Index Report 2021*; Mbow, et al., (2019). *Chapter 5. Food security. In Climate Change and Land: An IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems.* Intergovernmental Panel on Climate Change. p. 200

184 Kummu, et al., 2012. “*Lost food, wasted resources: global food supply chain losses and their impacts on freshwater, cropland, and fertiliser use.*” Science of the Total Environment. Vol. 438, 477–489.



Another related body of research has investigated the many ways that food waste can be exploited for power production, energy supply using, for example, biological conversion technologies – i.e., using the circular economy for bio-based waste management.<sup>185</sup>

Experimentation with food waste and compost-adoption tax regimes has begun in a number of contexts.<sup>186</sup> A few models have proved promising: for example, in Brazil, private for-profit agricultural composting plants have flourished since the establishment of a national solid waste policy to divert organics from landfill. The national policy offers favorable tax and financial incentives from local governments.<sup>187</sup> Others have suggested a food waste tax be imposed on supermarkets,<sup>188</sup> which should incentivize a shift to adoption of many food-waste reduction strategies and use of innovative tools and resources now available in many places to support such efforts. In some cases, this may present an opportunity for developing countries to leapfrog innovations and preserve and recycle bio resources more efficiently.

Take-back programs are another innovation, where food suppliers are encouraged to be responsible for the full life cycle of food production. Tax credits or incentives could be offered for food products which are included in take-back programs. Recent analysis has also highlighted the need for tax incentives to promote food donations in lieu of discarding safe, surplus food.<sup>189</sup> Donations can be exempted also from VAT-taxable transactions and ensure food donors are allowed to reclaim VAT credits on donated food. These can include charitable tax credits or deductions for in-kind food donations, Tax breaks and holidays for on-site composting programs for farmers (which could also be used in take-back programs) have also been experimented with in Austria, Brazil and elsewhere.<sup>190</sup>

Moreover, strong tax incentives can be introduced to encourage farmers to use compost, to ensure both a shift from heavy reliance on marine eutrophication-inducing chemical fertilizers, global soil restoration and a reliable economic demand for compost production. If effectively incentivized with taxes and other economic instruments, a private-sector, profitable composting sector can flourish and substantially reduce food waste.

Recent analysis suggests that substantial food waste happens at the household level, and therefore taxes, subsidies and educational campaigns should center of households.<sup>191</sup> On the consumer side, direct taxes on households for food waste, in keeping with the “polluter pays” principle, can generate municipal revenues and incentivize reduced non-composted food waste by consumers.<sup>192</sup> This can be

185 Ranjbari et al (2022). “*Biomass and organic waste potentials towards implementing circular bioeconomy platforms: A systematic bibliometric analysis.*” *Fuel*. Volume 318, 15 June 2022.; a review from Sudan: Omer (2007). “*Organic waste treatment for power production and energy supply.*” *Journal of Cell and Animal Biology* Vol. 1 (2), pp. 034-047, October.

186 <https://thegreattransition.github.io/group5-XPW8RAvw6t/>

187 World Bank, 2016. *Sustainable Financing and Policy Models for Municipal Composting.*

188 Homewood, M. (2021). “*157 packets of bacon and €1,000 worth of cheese: Why supermarkets need to be taxed for food waste.*” August 18, 2016.

189 Plekenpol, Leib, Shapiro, and Nalbantoglu. (2021). *Issue Brief: Promoting Food Donation: Tax Law and Policy. Law School Food Law and Policy Clinic.*; See also Franco and Cicatiello, 2021. *Levering waste taxes to increase surplus food redistribution at supermarkets: Gains and scenarios in Italian municipalities.* *Waste Management Journal*. Feb 15 Vol. 121, 286-295.

190 World Bank, 2016. *Sustainable Financing and Policy Models for Municipal Composting.*

191 Tonini et al (2018). “*Environmental impacts of food waste: Learnings and challenges from a case study on UK.*” *Waste Management* 76 (2018) 744–766; UNEP, 2021. *UNEP Food Waste Index Report 2021.*

192 World Bank, 2016. *Sustainable Financing and Policy Models for Municipal Composting.*

achieved by a variable rate based on their volume of organic waste production, or by implementing fees or fines in excess of a threshold, or as a flat fee jointly billed with utilities. Korea achieved a 95% reduction of organic waste (diverted to animal feed, biofuels and composting), which reduced disposal costs and generated government revenue.<sup>193</sup> In Mozambique, a joint billing structure combined solid waste fees with household electricity bills (but such a model would not work well in developing country communities where waste fees are not common or unsustainably low to support such a program).<sup>194</sup>

### 15.3 Performance measurement framework for Target 12.3

**Custodian agencies** for Indicator 12.3.1 are the **FAO** and **UNEP**. This is a Tier II indicator.

Table 12.1 sets out the criteria for scoring the dimensions and sub-dimensions of Target 12.3.

**Table 12.1. Performance Measurement Framework for Target 12.3**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 12.3</b> By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses production and supply chain, including post-harvest losses.	Indicator 12.3.1 Global food loss index	<b>G12.D1:</b> Reduce food waste at production and consumption levels	<b>Sub-dimension 1:</b> Extent to which systems are in place to minimize food wastage	A	i. Supermarkets and food shops are taxed based on volume of food waste or similar tax mechanisms to effectively encourage food waste-reduction innovations  ii. Tax incentives in place for any foodstuffs covered under supplier take-back programs  iii. Non-composted consumer bio/food waste taxed based on volume/weight  iv. Tax credits/benefits offered for participation in initiatives and businesses to managing composting including onsite for agri-producers
				B	Any two of the criteria A (i) to A (iv)
				C	Any one of the criteria A (i) to A (iv)

193 Innovation Seeds. 2012. *South Korea's Food Waste Reduction Policies*; [South Korea's food waste reduction policies](#)." Innovation for Sustainable Development, April, 2019; "[South Korea Recycles Food Waste in Effort to Become Zero-Waste Society](#)." NYC Food Policy Center, March 2020;

194 World Bank, 2016. [Sustainable Financing and Policy Models for Municipal Composting](#).

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
				D	Criteria for a C score are not met.

### Polluter Pays Taxes and Pay-as-you-throw (PAYT) schemes

This instrument employs the “polluter pays” principle, charging citizens based on the amount of waste they dispose. However, implementing such schemes generally requires well-developed infrastructure to collect and calculate waste (e.g., in terms of weight, frequency or by the number of standardized waste sacks). Citizen awareness campaigns and effective monitoring tools are also important to the success of these schemes. The charge under this system can be considered a tax on (plastic) waste. There are very few examples of such a tax across the globe. Governments can probably expect complexities in overseeing such a tax in the long run too. As an implementation strategy, authorities could start by implementing a tax on waste at industrial and corporate levels, and then using the experience to extend it to households.

### Taxes on plastic packaging and single-use plastics

Taxes on packaging and taxes on single-use plastic carrier bags can both be effective means of limiting plastics waste. In many instances, the introduction of such taxes has dramatically reduced the use of such products within the space of a few years e.g., in Belgium, an environmental tax on single-use plastic carrier bags, single-use plastic foil, and single-use plastic cutlery reduced consumption by 3000 tons and consumption of single-use plastic bags by 86% in the space of two years. Tax revenues covered the implementation costs.<sup>195</sup> In practical terms, taxes generate public revenue from the policy intervention, while other charges collected by retailers do not have any default destination.<sup>196</sup> Furthermore, taxes are more economically efficient as compared to bans as they incentivize consumers and producers to alter behavior and innovate to reduce their fiscal burden.<sup>197</sup>

### Taxes on waste, landfill deposits

In the EU, many member states use taxes and other fees on producers (and consumers) to increase the costs of incineration and disposal of waste in landfills and encourage innovation, diversion and reuse of materials. These fees and taxes are often designed with end-of-life management costs and related waste disposal externalities incorporated into the rates.<sup>198</sup> Such practices generally increase

195 IBGE (2011), Eco-taxation on disposable plastic bags, kitchen utensils, food wrap & aluminum foil (picnic tax), Belgium;

196 Cornago, E., P. Börkey and A. Brown (2021), “Preventing single-use plastic waste: Implications of different policy approaches”, OECD Environment Working Papers, No. 182, OECD Publishing, Paris, <https://dx.doi.org/10.1787/c62069e7-en>.

197 Cornago et al, 2021.

198 D’Ambrières, W. (2019), “Plastics recycling worldwide: Current overview and desirable changes”, Field Actions Science Report, Vol. 2019/ Special Issue.

recycling by 30%. More comprehensive steps have recently been taken at the EU level, including the Circular Economy Package of 2018, which plans to use Pay As You Throw (PAYT), EPR mechanisms and other taxes and fees to bring about major structural changes in how materials used in production, consumption and waste are treated and phase out landfills.<sup>199</sup> Korea introduced PAYT systems in 1995, which has had success in reducing waste substantially since its implementation.<sup>200</sup>

## 15.4 Performance measurement framework for Target 12.5

**Custodian agencies** for Indicator 12.5.1. are the **UNEP and United Nations Statistics Division (UNSD)** and the **partner agencies** are **OECD, Eurostat and UNU**. This is a Tier I indicator.

Table 12.2 sets out the criteria for scoring the dimensions and sub-dimensions of Target 12.5.

**Table 12.2. Performance Measurement Framework for Target 12.5**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 12.5</b> <i>By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse</i>	Indicator 12.5.1 National recycling rate, tons of material recycled	<b>G12.D2: Reduce non-food waste generation and encourage recycling</b>	<b>Sub-dimension 1:</b> Extent to which systems are in place to minimize non-food wastage and encourage recycling	A	<ul style="list-style-type: none"> <li>i. Tax instruments (e.g., excise) are in place at economically sufficient levels to effectively disincentivize the use of single-use plastics.</li> <li>ii. Life-cycle costs and related externalities of production, use and disposal are factored into taxes levied on producers</li> <li>iii. Appropriate tax on virgin plastics that reflect the environment costs of the material.</li> <li>iv. Waste disposal in landfills is effectively disincentivized by tax mix (e.g., by PAYT, landfill disposal tax, waste collection tax).</li> </ul>

199 Réka Soós, Andrew Whiteman and Gabriela Gavgas (2022) "The cost of preventing ocean plastic pollution." OECD Environment Working Paper No. 190.

200 Shin Lee and Yoo Gyeong Hur (2015), Volume Based Waste Fee (VBMF) System for Municipal Solid Waste Korea.

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
				B	Same as criteria A (i), A (iii) and A (iv)
				C	Any one of the criteria A (i), A (iii) and A (iv)
				D	Criteria for a C score are not met.

DRAFT

## 16. Goal 13: Take urgent action to combat climate change and its impacts

---

**Goal 13 has synergies with Goal 7 (Sustainable Energy), Goal 12 (Sustainable Consumption and Production), Goal 14 (Sustainable Marine Resources) and Goal 15 (Sustainable Terrestrial Ecosystems) and should be examined together**

### 16.1 Background and good practices

Climate change has emerged as one of the most critical macroeconomic and financial policy challenges that the world will face in the coming years and decades. By contributing to a higher frequency and intensity of natural disasters, climate change is an existential threat that is already imposing large economic and social cost on many economies.

In the period ahead, climate change is bound to affect macroeconomic and financial stability through numerous other transmission mechanisms, including fiscal positions, asset prices, trade flows, and real interest and exchange rates. While the mechanisms' relative importance will differ between individual countries, no country can expect to be spared entirely.<sup>201</sup> A comprehensive strategy for the engagement on critical, climate-related policy issues starts with a stock-taking exercise that reviews global activities in this area thus far.

A progressive transition to net zero greenhouse gas emissions by around the middle of the century is essential for containing the risks of dangerous climate change. Limiting global warming to 1.5°-2°C, the central goal of the 2015 Paris Agreement, will require climate policy packages including tax policy measures that drive transformative changes in production and consumption patterns towards decarbonization.<sup>202</sup> It also includes limiting or removing the use of fossil fuel subsidies currently available in many countries.

Carbon pricing impacts consumer choices by imposing an explicit or implicit price on the externality.<sup>203</sup> Carbon pricing instruments are popular policy instruments used as a tool to support climate mitigation.<sup>204</sup> Although carbon pricing is an effective instrument, a comprehensive package of measures is needed to enhance the overall effectiveness and acceptability of mitigation strategies.

Further to achieve the Nationally Determined Contribution (NDC) pledge under the Paris Agreement, fiscal policy intervention is essential to reduce emissions, limiting or removing the use of fossil fuel

201 Parry, Ian W. H., Ruud de Mooij, and Michael Keen. 2012. *Fiscal Policy to Mitigate Climate Change: A Guide for Policymakers*. IMF, Washington, DC.

202 IMF/OECD (2021), *Tax Policy and Climate Change: IMF/OECD Report for the G20 Finance Ministers and Central Bank Governors*, April 2021, Italy, [www.oecd.org/tax/tax-policy/imf-oecd-g20-report-tax-policy-and-climate-change.htm](http://www.oecd.org/tax/tax-policy/imf-oecd-g20-report-tax-policy-and-climate-change.htm)

203 Baumol and Oates. (1988). "On The Theory of Externalities". Macmillan.

204 World Bank (2021). *State and Trends of Carbon Pricing 2021*. World Bank, Washington, DC. 0

subsidies currently available in many countries. On elimination of fossil fuel subsidies, the OECD has been maintaining an online inventory that provides for the government's budgetary policies relating to fossil fuel subsidies, which can be utilized by countries in adopting practices for limiting or removing the use of fossil fuel subsidies in a phased manner to garner public acceptance. Important instruments for guidance include the 2021 UN handbook on carbon taxation for developing economies that provides for practical guidance on policy and administrative aspects of designing and implementing carbon taxation policy.<sup>205</sup> The OECD online inventory on fossil fuel subsidies, providing practical information on the application of these instruments.<sup>206</sup> Furthermore, the African Tax Administration (ATAF) policy brief on Carbon Taxation in Africa provides an overview on the design of carbon tax legislation.<sup>207</sup>

## 16.2 Desired outcome

The desired outcome for Goal 13 that can be supported by tax interventions are enunciated in Targets 13.1 and 13.2 and the corresponding outcome indicators in 13.1.2 and 13.2.2.

**Target 13.1** *Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries*

**Target 13.2** *Integrate climate change measures into national policies, strategies and planning*

### Carbon pricing

Carbon pricing is an efficient way to achieve emission reduction by taxing externalities. Apart from emission reduction, carbon pricing can assist in increased revenue mobilization. Carbon pricing is a cost-efficient policy instrument compared to regulatory approaches such as emission licensing, reporting etc.

Carbon pricing (see definition and discussion under SDG 7) helps countries steer their economies towards and along a carbon-neutral growth path. Carbon prices can improve resource efficiency and boost investment in clean energy and low-emission goods and services (OECD, 2018<sup>208</sup>; OECD, 2017<sup>209</sup>). Carbon pricing also adds flexibility to the fiscal policy toolkit. A sound policy mix that furthers a holistic national carbon price with well-designed rates, base and revenue use is a good climate policy and a good fiscal policy.<sup>210</sup> Further, carbon prices reduce emissions by encouraging energy users to abstain from carbon-intensive activities that are only of low value to them. Carbon prices thus encourage replacing carbon-intensive activities with low- and zero-carbon activities, as well as reducing carbon-intensive activities as such.

205 UN Handbook on Carbon Taxation for Developing Countries (2021) | Financing for Sustainable Development Office

206 The OECD Inventory and a detailed explanation of the methodology can be found at <http://www.oecd.org/fossil-fuels>

207 ATAF, Carbon Taxation in Africa, 2023, available at: [https://events.ataftax.org/index.p?page=documents&func=view&document\\_id=199&\\_ga=2.67729105.1735604791.1686844387-410229683.1646331956](https://events.ataftax.org/index.p?page=documents&func=view&document_id=199&_ga=2.67729105.1735604791.1686844387-410229683.1646331956).

208 OECD (2018), *Effective Carbon Rates 2018. Pricing Carbon Emissions Through Taxes and Emissions Trading*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264305304-en>.

209 OECD (2017), *Investing in Climate, Investing in Growth*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264273528-en>.

210 Flues, F. and K. van Dender (2020), "Carbon pricing design: Effectiveness, efficiency and feasibility: An investment perspective", OECD Taxation Working Papers, No. 48, OECD Publishing, Paris, <https://doi.org/10.1787/91ad6a1e-en>.

Carbon pricing policies should be considered within the context of countries' commitments to fulfilling the voluntary Nationally Determined Contributions (NDCs) foreseen under the Paris Agreement. Both the UNFCCC and the Kyoto Protocol (and the IPCC, as a result of it), require a territorial approach to the apportioning of greenhouse gas emissions. This creates a presumption that is in favour of states adopting only instruments that are capable of computing emissions released within one's territory, within the scope of their domestic climate change laws.<sup>211</sup> A fact that is consubstantiated in countries' NDC commitments, as over 90% of countries NDCs cover carbon dioxide emissions when it comes to the reporting of GHGs.<sup>212</sup>

There is no consensus at intergovernmental level as to what the term carbon pricing stands for. This is an ongoing and ever-changing debate. However, there are certain instruments that are generally perceived to price carbon either because they are capable of conferring a positive price on carbon, or because they detract from the overall carbon price. There are four instruments capable of conferring an explicit or implicit price on carbon. Those are carbon taxes, emissions trading schemes (ETS), energy excise taxes or taxes based on energy use, and fossil fuel taxes. Carbon taxes and ETSs<sup>213</sup> are the only two instruments capable of conferring an explicit price on carbon, because the operation of the instrument is in itself capable of conferring a clear price indicator. Excises on energy and on fossil fuel products confer only an implicit price because these do not tend to be introduced having in mind the pricing of carbon as a main consideration. To start with, they are levied on the retail, ad valorem price, meaning they are not specific and therefore they depend on a mathematical computation to be able to draw the inbuilt carbon price.<sup>214</sup>

In addition to the above, there are instruments that detract from the price. These are fossil fuel subsidies, any type of exemption or tax rate reduction that might be conferred nationally, state subventions, incentives, and other reductive measures.

Many other instruments, like regulatory measures tariffs and the use of voluntary permits to offset against a carbon price, can have a positive environmental impact. However, these are themselves not considered to be an integral part of the array of instruments that contribute to the designation of carbon price. In fact, if misused or ill designed, some of these instruments may have a negative impact on the carbon price, reducing the overall charge so applied and therefore also having a negative impact on revenue mobilization.<sup>215</sup>

As a result, if one were to consider the role that the carbon price has to play in devising only national climate strategies, attention would be centered on those instruments capable of informing a national carbon price that is apt to meet the country's NDCs.

211 Joanne Scott, *The Geographical Scope of the EU's Climate Responsibilities*, 17 Cambridge Yearb. Eur. Leg. Stud. 92, 93 & 100-102 (2015).

212 UNFCCC, Nationally determined contributions under the Paris Agreement, Synthesis Report by the Secretariat, FCCC/PA/CMA/2021/8, pg. 4, available at: [https://unfccc.int/sites/default/files/resource/cma2021\\_08\\_adv\\_1.pdf](https://unfccc.int/sites/default/files/resource/cma2021_08_adv_1.pdf), (last accessed 4 Jan 2023)

213 ETSs will derive an explicit carbon price provided the original allowance is auctioned, rather than grandfathered.

214 T. Falcão, *Paying the Piper: On the Legal Qualification of Carbon Prices*, January 2023, available at: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4336765](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4336765)

215 UN Tax Committee, *The impact of carbon Offsets on the carbon price*, publication forthcoming.



Equating the domestic carbon price	
(+ Instruments capable of generating a clear price indicator either explicitly or implicitly	Carbon Taxes
	Emissions Trading System
	Energy Excise Taxes/Taxes based on energy use
	Fossil fuel Taxes and other pollution taxes
(-) Instruments that will have the effect of reducing the price	Fossil fuel subsidies
	Exemptions and tax rate reduction
	State subvention and special regimes
(+/-) Questionable Instrument Assimilations (non-price based instruments)	Regulatory policies which result in an implicit marginal price on carbon
	Tariffs and other border measures
	Offsets/credits derived from voluntary carbon markets

The work conducted by intergovernmental organizations seems to be moving towards the recognition that explicit and implicit carbon pricing instruments are capable of conferring a positive price on carbon, while negative pricing instruments would then detract from the overall price for NDC computation purposes. All other instruments considered in the table above would be left out of the computation of a national carbon price for NDC purposes. For example, the OECD has been working on an indicator called the net effective rate that consists of three components: (1) explicit carbon pricing, (2) fuel excise taxes, and (3) fossil fuel subsidies that reduce the price on carbon.<sup>216</sup>

Likewise, the IMF has devised the economywide carbon price equivalent (ECPE) that would assess the emissions abatement of a policy by comparing it to a carbon price equivalent measure, and thereby deriving a corresponding value for the measure.<sup>217</sup> This measurement would be capable of comparing explicit and implicit (or indirect) carbon initiatives and deriving comparable prices.

216 OECD, *Pricing Greenhouse Gas Emissions: Turning Climate Targets into Climate Action*, November 2021, available at: [https://www.oecd-ilibrary.org/sites/e9778969-en/1/3/1/index.html?itemId=/content/publication/e9778969-en&csp\\_52c8137b50988e25208d1f7dee9bbae3&itemIGO=oecd&itemContentType=book](https://www.oecd-ilibrary.org/sites/e9778969-en/1/3/1/index.html?itemId=/content/publication/e9778969-en&csp_52c8137b50988e25208d1f7dee9bbae3&itemIGO=oecd&itemContentType=book) (last accessed 3/1/2023)

217 IMF Working Papers, *A Framework for Comparing Climate Mitigation Policies Across Countries*, (S. Black ; D. Minnett ; I. Parry ; J. Roaf ; K. Zhunussova), pg. 4, December 2022, available at: <https://www.imf.org/en/Publications/WP/Issues/2022/12/16/A-Framework-for-Comparing-Climate-Mitigation-Policies-Across-Countries-527049>, last accessed 5 Jan 2023.

Regulating carbon pricing measures, both from a definitional perspective and from the perspective of defining carbon price equivalents for implicit pricing options, is an area of work that is expected to develop significantly on a short-term basis. That is because multilateral approaches are currently being considered,<sup>218</sup> at the same pace as unilateral approaches are still at their infancy. For multilateral approaches to proliferate, it will be imperative for there to be global recognition of pricing equivalent measurements both for the application of implicit pricing instruments (such as energy taxes and fossil fuel taxes), and for the broadening of corresponding measures under Border Carbon Adjustment (BCA) measures (taxes employed by the country of production when the export transaction is subject to a BCA in the country of destination).

The ability to equate explicit and implicit carbon prices will be particularly relevant for developing countries, since implicit carbon taxes are disseminated across the spectrum, through different levels of development, whereas carbon taxes tend to be more concentrated in economies with a history of environmental protection. Recognizing carbon price equivalence implies a recognition that most developing countries are already implementing carbon pricing policies.<sup>219</sup>

### Fossil Fuel Subsidies<sup>220</sup>

In 2021 an important agreement was reached in COP26, and incorporated into the Glasgow Climate Pact,<sup>221</sup> to phase down inefficient fossil fuel subsidies. This agreement alone could contribute to the implementation of a global carbon pricing agreement through the diminution of negative carbon pricing approaches such as fossil fuel subsidies and other reductive measures.<sup>222</sup>

Subsidies are considered to be negative carbon pricing approaches because they have a diametrically opposite effect to the imposition of carbon taxes, even if subsidies are usually granted taking into account the ad valorem price of fuel, rather than the specific cost of the pollutant, as is the case under a carbon tax system. In other words, subsidies are usually applied in relation to implicit carbon prices such as fossil fuel taxes, and other indirect taxes on fuels like fuel-based VATs or GSTs.

A subsidy, by definition, aims to stimulate a behaviour (in this case, consumption of the carbon-intensive product such as coal, diesel and gasoline). Economically, subsidies can distort otherwise efficient markets, or they can correct existing market failures in order to enhance efficiency. Environmentally, subsidies can encourage the overuse of scarce environmental resources, or they can provide

218 Multilateral approaches considered recently include the:

(1) OECD/IEA Forum on Climate Mitigation Approaches mandated by the G7 presidency during COP 27 (G7, Terms of Reference for the Climate Club, 12 December 2022, available at: <https://www.g7germany.de/resource/blob/974430/2153140/a04dde2adecf0ddd38cb9829a99c322d/2022-12-12-g7-erklaerung-data.pdf?download=1>),

(1) *IMF proposal for a Carbon Price Floor (IMF, Proposal for an International Carbon Price Floor Among Large Emitters* (I. Parry, S. Black, J. Roof), IMF Staff Climate Notes, 2021/001) and

(1) T. Falcão. *A Proposition for a Multilateral Carbon Tax Treaty (ICTD)*, [www.mctt.earth](http://www.mctt.earth).

219 T. Falcão. *Highlights of the United Nations Handbook on Carbon Taxation*, Intertax, Volume 49, Issue 11, 2021.

220 T. Falcão, *Paying the Piper: On the Legal Qualification of Carbon Prices*, January 2023, available at: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4336765](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4336765)

221 UNFCCC, Glasgow Climate Pact, 13 November 2021, available at: <https://unfccc.int/documents/310475>, last accessed 5 Jan 2023.

222 World Bank, *State and Trends of Carbon Pricing*, 2022, pg. 14, available at: <https://openknowledge.worldbank.org/handle/10986/37455> (last accessed 4 Jan 2023)

incentives for environmentally sound behaviour.<sup>223</sup> Reducing subsidies means putting fossil fuels on an equal footing, from a pricing perspective, with all other similar energy products.<sup>224</sup>

Subsidizing energy use and consumption (e.g., coal and diesel) is still a widespread approach that is employed by many countries, including those enacting successful carbon taxes. Although such measures may be justifiable from a public policy and energy security perspective, they are contradictory to a robust and well-developed environmental policy. According to the OECD, government support for the production and consumption of fossil fuels totalled USD 468 billion in 2019;<sup>225</sup> this amounts to more than 20% of the value of internationally traded fossil fuels. It is estimated that the complete removal of fossil fuel subsidies would lead to an estimated 12% of the total abatement needed by 2020 from energy sector emissions.

Urgent reform is needed to gradually eliminate fossil fuel subsidies that encourage the consumption of carbon rich fuels. The Glasgow climate Pact agreement is important, but it is not the first of its kind. At the WTO Ministerial Conference in December 2017 in Buenos Aires,<sup>226</sup> WTO member countries adopted a Ministerial Statement on Fossil Fuel Subsidy Reform.<sup>228</sup> It urged the WTO to consider fossil fuel subsidy reform in ongoing discussions and called for, among others, enhanced WTO transparency and reporting to enable evaluation of the trade and resource effects of fossil fuel subsidies.

One of the main problems associated with the imposition and tracking of fossil fuel subsidies is the lack of common understanding as to what constitutes a fossil fuel subsidy. Countries have different interpretations of the concept, which makes it difficult to identify, track and eliminate nationally based subsidies. A framework to identify this instrument will need to be developed at international level if countries are to succeed at achieving this important target.<sup>229</sup>

Work on the establishment of a common framework has started, but agreement on the constitutive elements is still meagre. At the intergovernmental level in 2019, the United Nations Environment Program<sup>230</sup> together with the OECD, IISD, and GSI developed a methodology to measure fossil fuel subsidies at the national, regional, and global levels. The methodology relies on the WTO's subsidies definition that is contained in the Agreement on Subsidies and Countervailing Measures (ASCM) and on certain sub-classifications expressed in the IEA Statistical Manual.<sup>231</sup>

223 See M. Stillwell and J. Bohanes, *Trade and the Environment*, in *The World Trade Organization: Legal, economic and political analysis* (P.F.J. Macrory, A.E. Appleton and M.G. Plummer eds., Springer, 2005), ch. 58, pp. 548-549.

224 IEA, *Carrots and sticks: taxing and subsidising energy* (2006), available at <https://www.iea.org/reports/carrots-and-sticks-taxing-and-subsidising-energy> (accessed 25 Jul. 2021).

225 OECD, *Taxing Energy Use 2019: Using Taxes for Climate Action*, (OECD Publishing, 2019).

226 WTO, *Fossil Fuel Subsidies Reform Ministerial Statement*, WT/MIN(17)/54, (12 Dec. 2017), available at <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/MIN17/54.pdf&Open=True> (accessed 25 Jul. 2021).

227 Chile; Costa Rica; Iceland; Liechtenstein; Mexico; the Republic of Moldova; New Zealand; Norway; Samoa; Switzerland; the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu; and Uruguay.

228 WTO, *Fossil Fuel Subsidies Reform Ministerial Statement* (11 Dec. 2017), available at [https://docs.wto.org/dol2fe/Pages/FE\\_Search/FE\\_S\\_S009-DP.aspx?language=E&CatalogueIdList=240841,240845,240847,240848,240824,240821,240788,240773,240787,240774&CurrentCatalogueIdIndex=2&FullTextHash=371857150&HasEnglishRecord=True&HasFrenchRecord=False&HasSpanishRecord=False](https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S009-DP.aspx?language=E&CatalogueIdList=240841,240845,240847,240848,240824,240821,240788,240773,240787,240774&CurrentCatalogueIdIndex=2&FullTextHash=371857150&HasEnglishRecord=True&HasFrenchRecord=False&HasSpanishRecord=False) (accessed 25 Jul. 2021).

229 T. Falcão, *Highlights of the United Nations Handbook on Carbon Taxation*, Intertax, Volume 49, Issue 11, pgs. 897-914.

230 UNEP, IISD, and OECD, *Measuring fossil fuel subsidies in the context of the Sustainable Development Goals*, (2019), available at <https://www.unep.org/resources/report/measuring-fossil-fuel-subsidies-context-sustainable-development-goals> (accessed 2 Aug 2021).

231 IEA, *Energy Statistics—Manual*, International Energy Agency, (OECD Publishing, 2004), available at <https://www.oecd-ilibrary.org/>

The ASCM includes the following actions within the definition of subsidies: (i) a direct transfer of funds (e.g. grants, loans, and equity infusion), potential direct transfers of funds or liabilities (e.g. loan guarantees); (ii) government revenue that is otherwise due is foregone or not collected (e.g. fiscal incentives such as tax credits)<sup>232</sup> (iii) provision of goods or services other than general infrastructure, or purchases goods; and (iv) government payments to a funding mechanism, or entrusts or directs a private body to carry out one or more of the type of functions illustrated in (i) to (iii) above which would normally be vested in the government and the practice, in no real sense, differs from practices normally followed by governments.

As the methodology does not make the commitment to uniformize the definition of FFSs binding, it relies on three sub-indicators for reporting on the FFS indicator: 1) direct transfer of government funds; 2) induced transfers (price support); and, as an optional sub-indicator, 3) tax expenditure, other revenue foregone, and under-pricing of goods and services. The lack of a common definition in which to qualify FFSs hampers further unified international action to curb the widespread application of such policy. The STF aims to capture tax policies that are primarily geared towards the granting of tax incentives, reductions, exemptions and the under-pricing of goods and services. It does not include the direct transfer of government funds.

Many countries have joined the effort to classify subsidies at national level. The G20 has produced a number of reports on the existence and removal of harmful and inefficient fossil fuel subsidies covering countries that employ a carbon tax or price domestically. The Netherlands, Germany and Italy are some of the countries that are known to have undertaken that exercise, either as part of the G20 process or at their own initiative.

<https://www.oecd.org/fossil-fuels/Mexico-Peer-Review.pdf>

<http://www.oecd.org/site/tadffs/Germany-Peer-Review.pdf>

[https://www.oecd.org/fossil-fuels/publication/G20%20China%20Peer%20Review\\_G20\\_FFS\\_Review\\_final\\_of\\_20160902.pdf](https://www.oecd.org/fossil-fuels/publication/G20%20China%20Peer%20Review_G20_FFS_Review_final_of_20160902.pdf)

## 16.3 Performance measurement framework for Target 13.1

The custodian agency for Indicator 13.1.2 is the **UNDRR** and the **partner agencies** are

**UN-Habitat and UNEP**. This is a Tier I indicator.

Table 13.1 sets out the criteria for scoring the dimensions and sub-dimensions of Target 13.1.

energy/energy-statistics-manual\_9789264033986-en (accessed 25 Jul. 2021).

232 This criterion does not include exemptions granted for export transactions.

**Table 13.1 Performance Measurement Framework for Target 13.1**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 13.1</b> <i>Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries</i>	Indicator 13.1.2 Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015–2030	<b>G13-D1: Extent of monitoring of the impact of climate change and measures to combat it</b>	<b>Sub-dimension 1:</b> Extent to which there is regular monitoring of carbon emissions pricing, energy taxation and fossil fuel subsidies	A	The government develops a governance structure to implement the following actions: <ol style="list-style-type: none"> <li>i. Monitoring of CO<sub>2</sub> and CO<sub>2</sub>-equivalent emissions;</li> <li>ii. Adopting a national carbon pricing strategy in line with international best practices (explicit, implicit pricing and negative pricing taken into account);</li> <li>iii. Adopting NDC targets that are aligned with the Paris Agreement Climate Targets</li> <li>iv. Implementing a plan or a strategy to conceptualize inefficient fossil fuel subsidies under national law.</li> <li>v. Having in place a strategy to quantify inefficient fossil fuel subsidies using the concept employed in national law.</li> <li>vi. Conducting a program for the phasing out of fossil fuel subsidies in line with the commitments adopted under the Glasgow Climate Pact;</li> <li>vii. Having in place a strategy for energy substitution between fossil and non-fossil products.</li> </ol>
				B	The government has a mechanism for regular assessment of <u>any three</u> of the items specified for an 'A' score.
				C	There is an ad hoc assessment of any two of the items specified for an 'A' score.
				D	The requirements for a 'C' score are not met.

## Explicit pricing instruments

Carbon taxes and Emission Trading Systems (ETS) are two major carbon pricing instruments. Carbon taxation is a policy instrument where a government sets the price of carbon and lets the market determine the total emissions. An ETS by contrast is a pricing instrument that sets a maximum limit on emissions and lets the market determine the price of carbon emissions.

Eventually, both carbon tax and ETS achieve the objective of pricing carbon emissions. Countries can adopt a suitable carbon pricing instrument based on their societal interest that eventually results in emission reductions. The main distinguishing feature between them is (i) coverage of emissions; and (ii) timing for implementation, where ETSs take longer to implement and have a more limited emissions coverage.

## Carbon Taxes

Carbon taxation is the single most powerful and efficient tool to reduce domestic fossil fuel CO<sub>2</sub> emissions by producers<sup>233, 234, 235, 236</sup>. A carbon tax is a specific tax on the implied carbon content in crude oil, coal and its by-products. It therefore is capable of creating a direct correlation between the carbon pollution and the price so applied via the tax.

Carbon taxes employed at “choke points” at the upstream level, are capable of impacting the whole of the economy, without the need to focus on certain industries or sectors. It is therefore a best practice in terms of carbon tax policy design. An upstream carbon tax is simple to administer and is capable of impacting both the formal and the informal economies, a point which is particularly relevant for middle- and low-income countries.<sup>237</sup>

A carbon tax is a specific excise tax — a price per ton of carbon, usually applied by weight or volume. A carbon tax is relatively easy to administer, and the revenue-generating potential can be determined even before the tax is applied. If one knows how much fossil fuel is employed in a process, then both the taxpayer and the tax administration can predict the amount of carbon tax revenue that will be generated as a result of the combustion of that product. Because the correlation between a volume of product and the carbon content is mathematical, the law can apply pre-calculated tax rates without verifying actual emissions. The tax, expressed in terms of weight or volume, is based on the average carbon content of the relevant fuel.<sup>238</sup>

233 Akerlof, George, and others. 2019. *Economists' Statement on Carbon Dividends*. <http://www.econstatement.org>.

234 Council of Economic Analysis (CAE) and German Council of Economic Experts (GCEE). 2019. “A Uniform Carbon Price for Europe: Joint Statement of the CAE and the GCEE.” CAE and GCEE. <http://www.cae-eco.fr/Communique-commun-des-conseils-economiques-francais-et-allemand-Joint-statement>.

235 Parry, Ian W. H., Ruud de Mooij, and Michael Keen. 2012. “Fiscal Policy to Mitigate Climate Change: A Guide for Policymakers.” International Monetary Fund, Washington, DC.

236 Parry, Ian W. H., Adele Morris, and Roberton C. Williams III. 2015. *Implementing a US Carbon Tax: Challenges and Debates*. London: Routledge

237 There is extensive literature on the mechanics of a carbon tax. See, for example: G.E. Metcalf, *On the Economics of a Carbon Tax for the United States*, Brookings Papers on Economic Activity, (2019); IMF, *Fiscal Policies for Paris Climate Strategies – from Principle to Practice*, IMF Policy Papers, (May 2019); IMF, *Fiscal Monitor*, (Chapter 1), *How to Mitigate Climate change?* (2019), Pg. 3; J. Ramseur and L. Parker, *Carbon tax and greenhouse gas control: Options and considerations for Congress*, CRS Report for Congress (2009), p. 2; and Pigou, supra n. 11.

238 United Nations, *Handbook on Carbon Taxation for Developing Countries*, Chapter 4, 2021, available at: <https://www.un.org/development/desa/financing/document/un-handbook-carbon-taxation-developing-countries-2021>. (last accessed 4 January 2023)

A carbon tax can encourage a positive change in consumer behavior to the extent it provides an incentive for the consumer to acquire the least carbon-intensive product. That is because the tax would apply to a greater or lesser extent depending on the carbon intensity of the product, resulting in a higher tax burden on more carbon-intensive products and a lower tax burden for products that generate less carbon. A carbon tax on fossil fuels would automatically create a price differentiation between diesel, gasoline, and natural gas because diesel is more carbon-intensive than gasoline, which in turn is more carbon-intensive than natural gas. Therefore, a carbon tax employed per ton of carbon would automatically affect diesel more than it would affect natural gas, creating an incentive for consumers to purchase products that use natural gas rather than diesel.<sup>239</sup> Likewise, it would encourage both consumers and businesses to use natural-gas-based vehicles and machinery, because they would be cheaper to operate than a diesel-based vehicle.

Best practices assert that countries should start with the imposition of a relatively low carbon tax and have a plan for gradual increase of the tax rate over time. Since fossil fuel extraction and refining is a capital intensive, long-term project, that relies on long-term financing, it is recommended for the carbon tax law introducing the tax to foresee all future tax rate increases, in order to provide foresight over the costing of such projects on a long term basis.

According to the IPCC, the tax rate should be set between 20 to 80 USD/tCO<sub>2</sub>e by 2030 and USD30 to USD 155 by 2050 per ton of carbon in order to meet the Paris Agreement goals.<sup>240</sup> It is important for the tax rate to be significant, for it to be a reliable source of revenue generation for the country, so that Ministries of Finance across the globe have an interest in furthering the country's national carbon tax policy. A significant tax rate for low-income countries might therefore be around USD 30<sup>241</sup> per ton of carbon in 2024.<sup>242</sup>

Even if it is interesting for countries to have specific designation for the revenue collected via the tax, the earmarking of revenues might not always be feasible due to constitutional or legal limitations. The contribution of revenues to a country's general budget can nevertheless help foster priority areas for sustainable development, such as targeted education that can provide specialized knowledge in new renewable markets, infrastructure needed to foster the green transition, and even sponsor incentives for development of new technologies that may over time come to substitute fossil based energy sources.

Finally, it is important to note that carbon taxes can be applied at the downstream segment of the supply chain. These would be taxes incident either at the level of distribution or consumption of fossil fuel products and their derivatives. Even if downstream carbon taxes have successfully been employed

239 T. Falcão, *A Multilateral Approach to Carbon Taxation*, Tax Notes International, May 10, 2021, p. 775

240 According to the IPCC, "Modelling studies, consistent with stabilization at around 550 ppm CO<sub>2</sub>-eq by 2100 (see Box SPM.3), show carbon prices rising to 20 to 80 US\$/tCO<sub>2</sub>-eq by 2030 and 30 to 155 US\$/tCO<sub>2</sub>-eq by 2050. For the same stabilization level, studies since TAR that take into account induced technological change lower these price ranges to 5 to 65 US\$/tCO<sub>2</sub>-eq in 2030 and 15 to 130 US\$/tCO<sub>2</sub>-eq in 2050". See IPCC, Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, 2007, pg. 19, available at: <https://www.ipcc.ch/site/assets/uploads/2020/02/ar4-wg3-sum-vol-en.pdf>.

241 T. Falcao, *A Proposition for a Multilateral Carbon Tax Treaty*, 2023, available at: [www.mctt.earth](http://www.mctt.earth)

242 Elsewhere it has been argued that any carbon tax, even an extremely low one would be positive provided there is a clear tax rate schedule for consistent increases over time. (UN Handbook on carbon taxation for Developing Countries, 2021). However, this approach would not be capable of meeting the Paris Agreement target.

at the downstream level by some countries (i.e., Chile and South Africa), the down side of such a policy design is that it (i) is not capable of addressing the whole of the economy (i.e. emissions released in the upstream and mid-stream segments will not be accounted for through the tax); (ii) it requires more tax administration involvement as it is highly reliant on monitoring, review and verification processes to oversee emissions actually released into the atmosphere; (iii) is only applicable to certain sectors named by the competent legislation; and (iv) tends to rely on industry specific data, and therefore takes longer to implement. On the positive side is the buildup of a valuable emissions dataset, that can eventually be used to develop a national compliance or voluntary carbon market.

### Emission trading systems

ETS are the second type of explicit pricing mechanism. ETS schemes set a ceiling on the number of emissions released by certain sectors. Emissions permits are distributed to producers, either for free (grandfathering of permits tends to occur at the initial stages of operation of an ETS), or through the auctioning of permits. Polluters will be bound by the cap set for them in the regulatory process. If they pollute more than the cap, they are required to buy additional permits in a secondary market. If they produce less pollution than the cap, they are given the opportunity to trade their surplus permits in a secondary market, as if it were a capital asset.<sup>243</sup>

Permits are usually grandfathered during the initial phases of an ETM as a trial period in order to identify the number of allowances that are subject to negotiation and forestall a potential competitive disadvantage for industries trading products that are negotiated in international markets.<sup>244</sup> The free allowance period gives the regulator time to identify which sectors would be subject to carbon leakage.<sup>245</sup> Carbon leakage refers to a situation of increased production costs due to the implementation of climate policies, leading to the relocation of production to other countries with laxer emissions constraints, raising emissions abroad. The increased cost of doing business caused by a carbon price could likewise affect the competitiveness of industries subjected to a carbon price, particularly if they compete in international markets (i.e. , industry relocation as a result of the increase in energy cost).

As a matter of fact, even though ETS systems are said to be able to confer an explicit price on carbon, they only do so if the permits are auctioned rather than distributed for free. That is because the only revenue raising opportunity available for countries grandfathering permits, is to tax the gain attributed to a permit when negotiated in the secondary market through the capital gains tax system. Absent the negotiation in the secondary market, there is no other opportunity to in fact price the permit, and

<sup>243</sup> T. Falcão, *Paying the Piper: On the Legal Qualification of Carbon Prices*, January 2023, available at: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4336765](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4336765)

<sup>244</sup> See, in this respect, S. Kasa, *Explaining Emissions Tax Exemptions for Heavy Industries: A Comparison of Norway, Denmark and the Netherlands*, Center for International Climate and Environmental Research (Cicero), Policy Note 2000:3 (December 2000).

<sup>245</sup> The grandfathering of permits is in fact one of the biggest obstacles to the effectiveness of an ETS. The European Union, responsible for hosting the longest running ETS scheme in the world, has historically had difficulties in taking the EU ETS through to the next step in which there would be the auctioning off of permits. The market is only a regional one, therefore, the fear is that the full auctioning of permits might impose competitive disadvantages on the European-based industries trading on a worldwide scale. The EU is currently at its Phase 4 of the EU ETS system in which the auctioning of permits is now the default rule, however, the estimate is that only approximately 57% of allowances are, in effect, auctioned. The Fit for 55 plan intends to substitute the grandfathering of permits under the EU ETS for a Carbon Border Adjustment Mechanism, hence substituting the instrument used to protect the internal market against carbon leakage.



hence the externality and as a result, the government is in fact merely giving away a new negotiable asset for industries to speculate on for free. Since most of the ETS schemes in force across the globe grandfather emissions permits in order to address the leakage concern, most ETS systems fail to in fact allocate an explicit price on carbon. This is one of the main disadvantages with the choice of this instrument over a carbon tax.

Another disadvantage concerns the time that is required to introduce a fully functioning ETS into a legal system. ETS markets take on average five to ten years to be on a full working status, and requires extensive monitoring, review and verification processes (MRV)<sup>246</sup> in order to assess the level of pollution being emitted by the selected industries and set the cap under that threshold. Through the operational life of the ETS, MRV functions are also key in order to make sure the covered industries are compliant. Therefore, this instrument requires much more time and human resources from governments than the administration of a single tax applied at the upstream level.

Finally, ETSs usually operate at the downstream level of the value chain. Meaning it is a burden that is usually imposed on select carbon intensive industries. It is not a system that is geared towards obtaining a whole of economy carbon price. It aims to only price the externality of certain industries. Therefore, it is less effective at meeting a country's climate objectives. On the other hand, it can be used in combination with the administration of carbon taxes, as is the case in many countries across the globe.<sup>247</sup>

Eventually, both carbon tax and ETS achieve the objective of pricing carbon emissions. Countries can adopt a suitable carbon pricing instrument based on their societal interest that eventually results in emission reductions.

### **Implicit Carbon Prices**

Implicit carbon prices are downstream ad valorem taxes on a consumable energy product that is carbon intensive. Downstream means that they are levied either at distribution level (i.e., an energy supplier or fuel distributor) or at retail level. Ad valorem means that the tax is applied on the cost of commercialization of the final product (retail price), and not on an element of pollution, as is the case with the carbon tax. Carbon intensive consumable energy products are generally defined as coal, crude oil or any of its derivatives (including but not limited to diesel, gasoline or natural gas), including secondary products generated as a result of the combustion of a fossil fuel product (such as electricity and other forms of energy that are derived from fossil resources).

Historically in the OECD literature, implicit carbon prices have been generally referred to as environmentally related taxes. A distinction could therefore be made between environmental taxes (excise taxes levied on a specific base denominated in tons of carbon) and environmentally related taxes, where the correlation between the tax and the pollutant might only be indirect. Implicit carbon prices (or environmentally related taxes) might not necessarily be introduced to account for an

<sup>246</sup> Based on the practical experience from the EU, Chile, and China

<sup>247</sup> That is the case, for example, in Germany, the UK (when it administered the carbon price floor), the Netherlands, Indonesia, and others.

environmental externality, even if it is possible to derive an indirect carbon price from it.<sup>248</sup> That is why it is denominated to carry only an implicit price. A mathematical computation would to be derived and agreed internationally in order for countries to be able to compute those taxes towards their Nationally Determined Contributions. It is possible, and beneficial to all countries to do so, since most countries already have those taxes as part of their national tax systems. However, a compromise would need to be reached (which has not yet happened).<sup>249</sup>

Generally speaking, implicit carbon prices comprise energy taxes, fossil fuel taxes, pollution taxes, transport taxes, resource taxes and other taxes levied on energy products, on an ad valorem basis. National tax administrations could overcome the policy vacuum by establishing a legal definition and methodological approach to the computation of implicit carbon prices as part of a national strategy for carbon mitigation approaches under the NDCs.

### Negative Carbon Pricing

As aforementioned, negative carbon pricing measures comprise fossil fuel subsidies, any type of exemption or tax rate reduction that might be conferred nationally, state subventions, incentives, and other reductive measures. Following recent work conducted among others, by UNEP and OECD, these instruments are currently all captured by the standing definition of fossil fuel subsidies, outlined in the World Trade Organization Agreement on Subsidies and Countervailing Measures (ASCM).<sup>250</sup> The next session provides greater insight into the provision.

Voluntary carbon market (VCM) is another fiscal instrument with an impact on the carbon price. Voluntary carbon market schemes are privately run certification programs under which a voluntary demand for carbon offset credits is generated by individuals or companies who purchase offsets to mitigate their greenhouse gas emissions to meet self-imposed emission reduction goals. The carbon offset credits are created and sold by the developers of offset projects that reduce emissions of greenhouse gases. VCMs are seen as a prime instrument to attract the foreign investment needed to help poorer countries transition to renewables and stave off disastrous climate impacts, while at the same time foster local job creation and general economic development. Common offset type projects are related to renewable energy, energy efficiency, carbon sequestration through forest preservation, methane waste reduction, and others.

*T. Falcão, Paying the Piper: On the Legal Qualification of Carbon Prices, January 2023,*

248 T. Falcão, Chapter 3. *Providing Environmental Taxes with an Environmental Purpose, in Market Based Instruments: National Experiences in Environmental Sustainability* (Edward Elgar Publishing 2013).

249 The Platform on Collaboration on Tax has recently launched a publication that correlates the positions of the four main intergovernmental organizations (United Nations, OECD, IMF and World Bank) on the computation of an implicit carbon price. Political agreement on this issue is still pending, but this paper shows that a common agreed methodology is on its way. Platform on Collaboration on Tax, Carbon Pricing Metrics: Analyzing Existing Tools and Databases of Platform for Collaboration on Tax (PCT) Partners, 2023, available at: <https://www.tax-platform.org/sites/pct/files/publications/PCT-CPM-Report.pdf>.

250 UNEP, IISD, and OECD, *Measuring fossil fuel subsidies in the context of the Sustainable Development Goals*, (2019), available at <https://www.unep.org/resources/report/measuring-fossil-fuel-subsidies-context-sustainable-development-goals> (accessed 2 Aug 2021).

## 16.4 Performance measurement framework for Target 13.2

The custodian agency for Indicator 13.2.2 is the **UNFCCC**. This is a Tier I indicator.

Table 13.2 sets out the criteria for scoring the dimensions and sub-dimensions of Target 13.2.

**Table 13.2 Performance Measurement Framework for Target 13.2**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 13.2</b> <i>Integrate climate change measures into national policies, strategies and planning</i>	<b>Indicator 13.2.2</b> Total greenhouse gas emissions per year	<b>G13-D2:</b> Effective use of carbon pricing instruments such as carbon tax or/and emission trading systems (cap & trade)	<b>Sub-dimension 1:</b> The extent to which carbon pricing instruments such as carbon tax and emission trading systems are used to reduce the carbon footprint by producers.	A	<ul style="list-style-type: none"> <li>i. Carbon taxation is used to increase the price of carbon, and applied at the upstream level, at first entry of fossil fuel products in the supply chain.</li> <li>OR</li> <li>ii. An emission trading system is in place to complement the administration of a carbon tax policy. The ETS allocates emissions permits through an open auctioning system, and targets the power generation and large industrial sectors</li> <li>OR</li> <li>iii. Both a carbon tax and ETS</li> <li>iv. Carbon pricing instruments are employed and targeted towards improving resource efficiency and boosting investment in clean energy and low-emission goods and services.</li> <li>v. There is a long-term strategy (50 years or more) for the gradual increase of the national carbon price through successive tax rate increases or subsidy reductions that is aligned with pledge under the NDC;</li> <li>vi. There is a plan in place to expand the tax base until full coverage of CO<sub>2</sub> and CO<sub>2</sub>e emissions is reached.</li> <li>vii. A program is in place to alleviate the burden on the price on low income households.</li> </ul>

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
				B	<ul style="list-style-type: none"> <li>i. Same as (i) of A</li> <li>ii. Any two of (ii) to (v) of A</li> </ul>
				C	<ul style="list-style-type: none"> <li>i. The country only administers implicit carbon prices or ETS where the permits are 100% grandfathered</li> <li>ii. Any one of (ii) to (v) of A.</li> </ul>
				D	The requirements for a 'C' score are not met.

DRAFT

## 17. Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development

**Goal 14 has strong synergies with Goal 13 (Climate Change) and should be examined together**

### 17.1 Background and good practices

The Food and Agriculture Organization (FAO) estimates that in 2019 around 61 million people were employed worldwide in fishing and fish-farming, with a majority of those employed by the capture fisheries sub-sector working in small-scale operations in developing countries. In 2019, fisheries and aquaculture produced roughly 178 million tonnes of fish of which the world capture fisheries in marine waters account for 80.4 million tonnes, generating over USD162 billion in exports, with 54 percent originating in developing countries.<sup>251</sup>

Fish is a natural resource that belongs to the coastal country, in general, and to the coastal community, in particular. For this resource to be renewable, providing ecological sustainability into the future is critical to ensure that the coastal community continues to receive fishing revenues on an ongoing basis. The fisheries sector is notoriously vulnerable to overfishing and the “tragedy of the commons” looms large, where there is almost open access to a resource unhampered by shared social responsibilities and structures. Formal rules that govern access and use rights are difficult to enforce even in developed countries.

An estimated 12 megatonnes of plastic leaks into the ocean every year. Recent studies estimate the cost of infrastructure to collect a 100% of existing plastic waste and ensure controlled recovery and disposal of future waste in OECD countries and 10 other selected countries at \$54 to 74 billion

-Boucher, J. and G. Billard (2019), “The challenges of measuring plastic pollution”, *Field Actions Science Report*, Vol. 2019/Special Issue 19, pp. 68-75.

-Réka Soós, Andrew Whiteman and Gabriela Gavgas (2022) “The cost of preventing ocean plastic pollution.” *OECD Environment Working Paper No. 190*.

### 17.2 Desired outcome

The desired outcome for Goal 14 that can be supported by tax interventions is enunciated in Targets 14.1, 14.4 and 14.7, and the corresponding outcome indicators in 14.1.1 and 14.4.1 and 14.7.1.

<sup>251</sup> FAO Yearbook (2019). Fisheries and Aquaculture Statistics.2019. <https://www.fao.org/3/cb7874t/cb7874t.pdf>

**Target 14.1:** *By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.*

**Target 14.4:** *By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics*

**Target 14.7:** *By 2030, increase the economic benefits to small island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism.*

### **Marine Pollution – plastics and eutrophication (e.g., from fertilizer run-off)**

Prevention of marine pollution by plastics, waste, toxins and eutrophication (e.g., agricultural fertilizers run-off) requires a complex mix of changing production and consumption behaviors, infrastructure systems designed to reduce pollution and instill circular economy practices, and the introduction of related public policies.

Eutrophication and wastewater discharge into marine waters is also a major concern. Eutrophication is defined as excessive richness of nutrients in a lake or other body of water, frequently due to run-off from the land (e.g. chemical fertilizers in agricultural production), which may cause a dense, and species-threatening growth of plant life (e.g. damaging algae bloom in the Gulf of Mexico). Aquatic biodiversity is decreasing, acidification and hypoxia and dead zones in coastal areas have expanded rapidly in recent decades – in large part due to eutrophication. Costs associated with this issue include increased water treatment for drinking. Addressing eutrophication will require innovative solutions, as there is evidence to suggest that legacy stores of nitrogen and phosphorus in catchments may be sufficient to sustain algal blooms and murky waters for decades to come.<sup>252</sup> Regardless, it is evident that agriculture sectors will need to find more efficient<sup>253</sup>, limited and sustainable approaches to using fertilizers, such as shifting to crop rotations, organic methods and more sustainable farming practices which promote restoration and rebuilding of natural soil nutrients in lieu of chemical fertilizers. It is a complex issue – nutrient reduction strategies will need to take a holistic catchment-to-coast continuum approach to address eutrophication effectively, and nutrient reduction strategies must work to accurately apportion the fiscal burden to the appropriate agricultural or other sources.<sup>254</sup>

252 Withers et al., 2014. *Agriculture and Eutrophication: Where Do We Go from Here?* Sustainability, Vol 6 (9), 5853-5875; <https://doi.org/10.3390/su6095853>; Soil-accumulated “legacy” nutrients provide a ubiquitous source of background nutrient loss to water from farmed land every time land runoff is generated.

253 For example, as of 2014, a crop in the UK recovers no more than approximately 60% of fertilizer N and 30% of fertilizer P in the year of application. Source: Withers et al., 2014. *Agriculture and Eutrophication: Where Do We Go from Here?* Sustainability, Vol 6 (9), 5853-5875; <https://doi.org/10.3390/su6095853>

254 Although the dynamic and unpredictable nature of non-point nutrient export in catchments makes this source tracking a very difficult task (Withers et al, 2014).

### Taxation of regional nutrient run-off of fertilizers

Recent research has modeled potential tax instruments which may be effective in tackling eutrophication. The findings from the research suggest that in the absence of serious national policies which fully internalize externalities of both CO<sup>2</sup> emissions and eutrophication, “a sufficiently high tax on regional nutrient run-off of fertilizers used in agricultural production can limit not only marginal environmental damages from nutrient run-off but also account for unregulated carbon emissions”.<sup>255</sup> This study recognizes that existing global efforts will likely not be sufficient to prevent marine ecosystems from serious changes. The authors also recognize that those who are most affected by eutrophication are likely to be small developing coastal communities, and hence recommend that regional tailor-made mitigation strategies should receive more attention. An economically optimal fiscal policy response to internalize the ocean acidification should not only take into account the direct marginal damages from CO<sup>2</sup> emissions but also the marginal damages arising from the interaction with regional nutrient run-off. Some countries, such as Spain, charge a tax on coastal waters waste discharge to discourage wastewater finding its way into the sea.

Another approach that can indirectly contribute to the reduction in carbon emissions impacting the marine ecosystem and fisheries, is the taxation of carbon dioxide emissions associated with the transport of carbon and fishing vessels. There are no restrictions in international or tax law prohibiting or limiting a state’s right to tax fuels used in the cross-border maritime transport of goods or in high-seas fishing exploration.<sup>256</sup> In fact, the Kyoto Protocol<sup>257</sup> specifically called on Annex I parties – that is, developed countries that have specific emissions reduction targets under the agreement – to address emissions from shipping as part of their plans. Negotiations are currently underway at the level of the International Maritime Organization with an interest of achieving an agreement on the taxation of fuels used in maritime transport but have so far not reached a conclusion.<sup>258</sup> Much of the scientific literature on this front suggests that carbon emissions released on any specific shipping route – including routes crossing international waters or on the high seas – should be taxed by the country of destination and on a distance basis. In the case of transport of merchandise, the product undergoing the transport is the taxable element and not the ship or the ship owner.<sup>259, 260</sup> In the case of fishing vessels, the tax could be incident on the length of the journey (in kms) and then pro-rated per fish/marine product and imbued into the price of commercialization.<sup>261</sup>

### Tax incentives for marine research and technology to clear microplastics and waste

Significant research and innovation will be required, moreover, to find the means to clear waste and microplastics from the oceans and coastal areas. Tax incentives can be used to promote research and scientific innovation in addressing and clearing pollution from the oceans and coastal areas.

255 Hansel and Bergh (2021). *Taxing interacting externalities of ocean acidification, global warming, and eutrophication*. *Natural Resource Modeling*. DOI: 10.1111/nrm.12317.”

256 United Nations Handbook, Chapter 3, pg 36, para. 112.

257 *Kyoto Protocol to the United Nations Framework Convention on Climate Change*, supra n. 17, at article 2(2).

258 IMO, *Initial IMO Strategy on Reduction of GHG Emissions from Ships*, Res. MEPC.304(72), Annex 11, (adopted on Apr. 13, 2018).

259 T. Falcão, *Taxing Carbon Emissions on the High Seas*, *Tax Notes International*, (31 Aug. 2020), p. 1199; and

260 World Bank. *Regional Carbon Pricing for International Maritime Transport - Challenges and Opportunities for Global Geographical Coverage*, (G. Dominioni, D. Heine and B. M. Romera), Policy Research Working Paper 8319, January 2018

261 T. Falcão, *A proposition for a Multilateral Carbon Tax Treaty*, ICTD, 2023 (expected), treaty text available at: [www.mctt.earth](http://www.mctt.earth).

### 17.3 Performance measurement framework for Target 14.1

The custodian agency for Indicator 14.1.1 is the **UNEP** and the partner agencies are **IOC-UNESCO, IMO and FAO**. This is a Tier II indicator.

Table 14.1 sets out the criteria for scoring the dimensions and sub-dimensions of Target 14.1

**Table 14.1. Performance Measurement Framework for Target 14.1**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 14.1</b> <i>By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.</i>	<b>Indicator 14.1.1</b> <b>Index of coastal eutrophication and floating plastic debris density</b>	<b>G14-D1:</b> <b>tax policy measures to curb marine and coastal pollution</b>	<b>Sub-dimension 1:</b> Effective use of tax policy, regulatory fees and administrative measures and prevent pollution of coastal territories and oceans	A	iv. Marine eutrophication is disincentivized and progressively reduced by a regionally administered tax on agricultural fertilizer run-off  v. High regulatory fees are levied for disposal of plastics and other waste into the ocean.  vi. Sewerage water disposal in coastal area is effectively disincentivized with appropriately high regulatory fees.  vii. Tax incentives are in place to incentivize research, innovation and investment in wastewater treatment for restoring quality of marine waters and coastal areas
				B	Any two of A(i) to A (iv).
				C	Any one of A(i) to A (iv).
				D	Criteria for a C score are not met.

#### Revenues from sustainable fisheries

Fishing revenues have provided welcome breathing space for several countries who were encountering fiscal difficulties. This needs to be converted into a more sustainable budget scenario moving forward.



The first step for many nations is to recognize these are not temporary windfall revenues, but an ongoing feature of their own-source income, which may demonstrate volatility.

Most countries charge a resource rent for this natural treasure so that the community can benefit from it. At the same time, countries devise rules and safeguards to prevent overfishing. Enforcement of these rules are challenging even in advanced economies.

### Performance measurement framework for Target 14.4

The custodian agency for Indicator 14.4.1 is the **FAO**. This is a Tier I indicator

Table 14.2 sets out the criteria for scoring the dimensions and sub-dimensions of Target 14.4.

**Table 14.2. Performance Measurement Framework for Target 14.4**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 14.4</b> <i>By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics</i>	Indicator 14.4.1 Proportion of fish stocks within biologically sustainable levels	<b>G14-D2: Rules to prevent overfishing</b>	<b>Sub-dimension 1:</b> Effective use of rules and safeguards to prevent overfishing	A	i. Access rights license is required for foreign fishing vessels to regulate and enforce the volume of fishing. ii. Rules and safeguards are in place to prevent overfishing. iii. Customs and Coast Guards routinely monitor and enforce the rules to prevent overfishing. iv. Aquaculture and farm fishing require license.
				B	Same as (i) and (ii) of 'A' score.
				C	Any one of (i) and (ii) of 'A' score.
				D	Criteria for a C score are not met.

### Licensing of fishing rights

Public revenue from fishing rights takes several forms. Pacific countries, for instance, have made significant steps towards maximizing their share of the incomes from fisheries, mainly through access

right fees and license charges. These are levied on foreign fishing vessels, representing six per cent of the value of the catch. Since the value of catch by vessels that do not touch local ports is difficult, Pacific countries levy a benchmark charge of USD 8,000 per day per vessel. Foreign fishing access annually generates approximately USD350 million to USD 400 million for the 22 Pacific Island countries and territories.

### **Other taxes on fisheries**

In Alaska, a Fisheries Business Tax is levied on people who process or export fisheries resources from Alaska. The tax is collected primarily from licensed processors and exporters and is based on the price they pay to commercial fishermen. Several other taxes that are levied in Alaska include: (i) the Fishery Resource Landing Tax which is levied on fishery resources processed outside the 3-mile limit and first landed in Alaska; and (ii) the Salmon Enhancement Tax which is levied on salmon sold in an established aquaculture region and is based on the price paid for the salmon.

In Norway, in addition to revenues from selling of fishing rights, the Government proposes to introduce a production tax on farmed fish in 2021. The tax rate is suggested to 0.40 Norwegian krone (NOK) per kilogram produced fish. This provides approximately NOK 500 million to local and regional governments from 2022 and onwards.

In Norway, on 31 May 2023, the parliament adopted a law proposal (Prop. 78 LS (2022-2023) regarding the resource rent tax on aquaculture (*grunnrenteskatt påhavbruk*). The tax is an additional tax on income received from natural resources, such as salmon and trout, thus also named the salmon tax. The tax is intended to redistribute part of the profits attributed to fishing activities, to local communities along the coast. The tax is levied at a rate of 25% on the profits of salmon and trout farmers and is applied in addition to corporate income tax. A minimum deduction of NOK 70 million is granted, to alleviate the burden on small fish farmers. The tax applies retroactively from 1 January 2023. It is expected for an independent price board to be set from 2024, to establish the market values for salmon, trout, and rainbow trout.

### **Export duties on fishery products**

Many countries around the world use export taxes on commodities for a variety of reasons. Two countries in the Pacific region, (Solomon Islands and Tonga) have export duties on fishery products – which apparently were imposed to prevent unfair transfer pricing by vertically integrated fishing/marketing companies. As discussed earlier, Yemen levies export fees on fish export at specific rates that depend on whether the fish is frozen, fresh or processed.

Among the objectives for which export taxes have been used are to stabilize prices, influence resource allocation, alter income distribution outcomes, and increase fiscal revenue. When a country possesses a degree of monopolistic power in the international market for a particular commodity, an export tax levied on the good in question can improve the country's terms-of-trade, that is, the relative price of a

country's exports.<sup>262</sup> All types of export taxes have the effect of reducing the volume of exports and are, therefore, a form of export restriction, and implicitly a subsidy for the use of the natural resources in domestic value addition activities.

### Performance measurement framework for Target 14.7

**Custodian agencies** for Indicator 14.7.1 are the **FAO and UNEP-WCMC**. This is a Tier I indicator.

Table 14.3 sets out the criteria for scoring the dimensions and sub-dimensions of Target 14.7.

**Table 14.3 Performance Measurement Framework for Target 14.7**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 14.7</b> <i>By 2020, increase the economic benefits to small island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism</i>	Indicator 14.7.1 Sustainable fisheries as a proportion of GDP in small island developing States, least developed countries and all countries	<b>G14-D3: revenues from sustainable fisheries</b>	<b>Sub-dimension 1:</b> Resource rent and taxes on fisheries and aquaculture to ensure sustainable economic benefits for coastal communities	A	i. Appropriate access right fees and/or license charges are levied on foreign fishing vessels. ii. The access right fees and/or license include levy of a benchmark charge per day per vessel in addition to a levy on the value of the catch. iii. Fisheries tax is levied on licensed processors and exporters of fisheries resources. iv. Production tax is levied on farmed fishing v. A carbon tax is levied on the CO2 emission from fishing vessels.
				B	Any two of (i), (iii) and (iv) of 'A' score.
				C	Any two of (i), (iii) and (iv) of 'A' score.
				D	Criteria for a C score are not met.

262 Piermartini, Roberto. *The Role of Export Taxes in the Field of Primary Commodities*. World Trade Organization Geneva, Switzerland. 2004.



## 18. Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss

---

**Goal 15 has strong synergies with Goal 13 (Climate Change) and should be examined together**

### 18.1 Background and good practices

Desertification and land and soil degradation are primarily affected by anthropogenic climate change. Climate change has emerged as one of the most critical macroeconomic and financial policy challenges that the world will face in the coming years and decades. This issue has also been discussed in Chapter 17 in relation to SDG 13. By contributing to a higher frequency and intensity of natural disasters, climate change is already imposing large economic and social costs on many economies. Extreme weather conditions and frequency of droughts and floods are affecting vulnerable populations in many countries.

In the period ahead, climate change is bound to affect macroeconomic and financial stability through numerous other transmission mechanisms, including fiscal positions, asset prices, trade flows, and real interest and exchange rates. While the mechanisms' relative importance will differ between individual countries, no country can expect to be spared entirely.<sup>263</sup> A comprehensive strategy for the engagement on critical, climate-related policy issues starts with a stock-taking exercise that reviews global activities in this area thus far.

A progressive transition to net zero greenhouse gas emissions is essential for containing the risks of dangerous effects on the terrestrial ecosystem. Limiting global warming to 1.5°- 2°C, the central goal of the 2015 Paris Agreement, will require climate policy packages including tax policy measures that drive transformative changes in production and consumption patterns.<sup>264</sup> It also includes limiting or removing the use of fossil fuel subsidies currently available in many countries.

Although carbon pricing is an effective instrument for preventing the terrestrial ecosystem from further damage, a comprehensive package of measures is needed to enhance the overall effectiveness and acceptability of mitigation strategies. Key elements potentially include a balance between carbon pricing and reinforcing sectoral instruments; supporting public investment and technology policies; productive and equitable use of carbon pricing revenues; and measures for a just transition, to address industrial competitiveness, and to reduce broader greenhouse gas emissions. Judicious use of carbon

<sup>263</sup> Parry, Ian W. H., Ruud de Mooij, and Michael Keen. 2012. *Fiscal Policy to Mitigate Climate Change: A Guide for Policymakers*. IMF, Washington, DC.

<sup>264</sup> MF/OECD (2021), *Tax Policy and Climate Change: IMF/OECD Report for the G20 Finance Ministers and Central Bank Governors*, April 2021, Italy, [www.oecd.org/tax/tax-policy/imf-oecd-g20-report-tax-policy-and-climate-change.htm](http://www.oecd.org/tax/tax-policy/imf-oecd-g20-report-tax-policy-and-climate-change.htm)

pricing revenues can make climate policy more inclusive and effective while containing the costs of clean energy transitions to the economy.<sup>265</sup>

## 18.2 Desired outcome

The desired outcome for Goal 15 that can be supported by tax interventions is enunciated in Target 15.3 and the corresponding outcome indicator in 15.3.1.

**Target 15.3:** *By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world*

### Carbon pricing

The comments pertaining to carbon pricing, explicit carbon pricing, implicit carbon pricing and negative carbon pricing contained in the descriptors of SDGs 7 and 13 are also applicable to this section.

### Feebates to address deforestation: Commodity Taxes and Rebate systems

One technique that has been proved to be effective in combatting deforestation and land erosion due to deforestation is the application of a tax on deforestation-related commodities, according to production methods, and a corresponding rebate if the product is above the environmental benchmark for sustainability. This is called a feebate structure.

A few products are responsible for deforestation (among them plant based fibers, sugar, wheat, rice, cereals, oilseed products, cattle meat, vegetables, fruits and nuts). The best practice is to apply a tax per unit of produced product and make it variable according to the production method employed in the production of those products. The more sustainable the production method, the lower the tax rate.<sup>266</sup> The optimal fiscal incentive requires varying the tax by how forest products get produced. However, the discovery process of production methods is difficult. To solve that problem, governments can rely on certification agencies that provide information on production methods, to instruct the level at which the tax will be applied. The overall tax system as a result, works by allowing a default tax to be applied, based on the default value for the assumed non-sustainable practice (such as deforestation) for the item in question. The government then allows a tax discount or rebate if an accredited agency certified that the product was produced in a manner that is more sustainable than the default value. This approach was implemented in trading relations between Indonesia and Switzerland, when transacting palm oil. Before the agreement, Switzerland applied a tariff on palm oil deriving from Indonesia, on the basis that the palm oil led to deforestation. After the agreement, palm oil that was certified as being deforestation-free, received half of the tariff. The rate of the tariff on the border varied according to embedded carbon content.<sup>267</sup>

265 IMF/OECD (2021), *Tax Policy and Climate Change: IMF/OECD Report for the G20 Finance Ministers and Central Bank Governors*, April 2021, Italy, [www.oecd.org/tax/tax-policy/imf-oecd-g20-report-tax-policy-and-climate-change.htm](http://www.oecd.org/tax/tax-policy/imf-oecd-g20-report-tax-policy-and-climate-change.htm)

266 IMF. *The Complier Pays Principle: The Limits of Fiscal Approaches Towards Sustainable Forest Management*, (I. Ruzicka, Mr. Luc E. Leruth, and R. Paris) IMF Working Paper 051, 2000

267 Heine, D., Hayde, E., & Faure, M. G. (2021). *Letting commodity tax rates vary with the sustainability of production*. In World Bank Group (Ed.),

### 18.3 Performance measurement framework for Target 15.3

The custodian agency for Indicator 15.3.1 is the **UNCCD** and partner agencies are the **FAO** and **UNEP**.

Table 15.1 sets out the criteria for scoring the dimensions and sub-dimensions of Target 15.3.

**Table 15.1. Performance Measurement Framework for Target 15.3**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 15.3</b> <i>By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world</i>	Indicator 15.3.1 Proportion of land that is degraded over total land area	<b>G15-D1: Effective use of carbon pricing and emission trading systems</b>	<b>Sub-dimension 1:</b> Extent to which carbon pricing and emission trading systems are used to reduce carbon footprint by producers	A	<ul style="list-style-type: none"> <li>iv. Taxes are imposed on activities that contribute to land degradation like deforestation, overgrazing, and mining. The tax rate varies according to the production method employed</li> <li>v. Land-based activities on activities known to be responsible for land degradation and deforestation are subject to certification processes for sustainable practices.</li> <li>vi. A rebate is granted to the producing agent provided the enterprise is graded as sustainable.</li> <li>vii. Incentives are present to foster land restoration by the producer</li> <li>viii. Authorities use land use planning fees to develop sustainable land use practices</li> </ul>
				B	Any one of A (i) or A (ii) are regularly used (every 4 to 5 year) with the aim of reducing carbon footprint.
				C	Any one of A (i) or A (ii) is used less frequently than 5 years
				D	Criteria for a C score are not met.

Designing fiscal instruments for sustainable forests (pp. 145-171).

## 19. Goal 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

---

### 19.1 Background and good practices

In many countries, there are significant challenges in sustainable development due to weak governance institutions, low levels of transparency and accountability and entrenched corruption. Illicit financial flows (IFFs) also present a major hindrance to development, as they divert scarce resources away from development through corruption, criminal activities, tax evasion/avoidance, and mispriced commercial transactions. These resources could otherwise be channeled towards financing the SDGs.

SDG 16 on peace, justice and strong institutions, includes specific targets to address corruption, increase transparency, tackle IFFs and improve access to information. As such, SDG 16 creates an enabling environment to achieve the entire 2030 Agenda.

Effective tax systems and SDG 16 are mutually reinforcing. The connection between tax and governance manifests itself in different ways. Moore (2008) summarizes three: The first is continuous bargaining between citizens and the state, where the payment of tax and the delivery of public goods and services are at the center. The second is through the state's incentive to promote growth because public finances depend on it through tax. Finally, tax collection critically depends on the quality of institutions and organizations. This illustrates the critical role that effective tax systems can have in promoting strong and resilient social contracts<sup>268</sup> between the state (on delivery of public services) and society (including the people paying for services through taxation).

Moreover, confidence and trust in the tax system is reinforced by an effective governance and public administration system based on transparency, accountability, and responsiveness to the needs of the population, in general, and taxpayers, in particular. A country's tax levels have long been associated with its degree of societal organization and effectiveness of rule-based institutions. Governments bear the ultimate responsibilities in providing basic services such as public safety, law, infrastructure, education and health, but the source of financing is highly dependent on the country's context.

### 19.2 Desired outcome

The desired outcome for the Goal 16 that can be supported through tax interventions is enunciated in Targets 16.4, 16.5, 16.6 and 16.8, and the corresponding outcome indicators in 16.4.1, 16.5.1, 16.6.1, 16.6.2 and 16.8.1

<sup>268</sup> Van den Boogaard, V., Prichard, W., Beach, R., and F. Mohiuddin (2021). *Enabling tax bargaining: Supporting more meaningful tax transparency and taxpayer engagement in Ghana and Sierra Leone*, *Development Policy Review*. 2021.

**Target 16.4** *By 2030, significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets and combat all forms of organized crime*

**Target 16.5** *Substantially reduce corruption and bribery in all their forms*

**Target 16.6** *Develop effective, accountable and transparent institutions at all levels*

**Target 16.8** *Broaden and strengthen the participation of developing countries in the institutions of global governance*

### **Combatting illicit financial and arms flows all forms of organized crime**

IFFs are most commonly defined as money or capital illegally earned, transferred, or used that crosses borders. IFFs stem from corruption, crime, terrorism, and tax evasion. By depleting resources away from development, IFFs directly undermine countries' efforts to achieve the SDGs. There is continued controversy surrounding the taxation of multinational firms and international transactions, as well as assets held by both firms and individuals in other jurisdictions. This is linked to lack of transparency of cross-border transactions, corporate vehicles and ultimate beneficial owners, as well as large-scale corruption. Although IFFs is not purely a tax issue, the topic is highly interrelated to tax evasion as well as elements of aggressive tax avoidance. Endeavors at the international level to tackle BEPS are gathering momentum. These are dealt with and discussed in the section on DRM.

Hidden, secret, fraudulent, and misleading transactions prevent countries from enforcing the law and collecting taxes. Moreover, lack of financial transparency also creates uneven playing fields that harm small- and medium-sized businesses and undermine the equity and inclusiveness of economies. Recent tax evasion and corruption scandals and continued concerns about tax avoidance in an era of digital economic activity, demonstrate that efforts to create level playing fields and opportunities for equitable resource mobilization is urgent. Estimates show that corruption, bribery, tax evasion and related illicit financial flows deprive developing countries of around US\$1.26 trillion per year.

Despite a lack of clarity of definitions, some national governments and regional organizations have recognized the scale and seriousness of the problem and taken actions through strengthening existing institutions and enforcement of the law.

IFF is a global problem that cannot be solved by individual countries but requires strengthened international collaboration. The Conceptual Framework for the Statistical Measurement of Illicit Financial Flows published by UNCTAD and UNODC provides the first ever UN wide definition of IFFs for statistical purposes. UNCTAD has recently finalised a draft of Methodological Guidelines to Measure Tax and Commercial IFFs for pilot testing with a mandate to collect and access relevant information. Likewise, the OECD Global Forum on Transparency and Exchange provides a multilateral response to the need to tackle offshore tax evasion. It brings together over 160 jurisdictions dedicated to improving transparency and the exchange of information for tax purposes. Similarly, the Financial Action Task Force (FATF) leads global action to tackle money laundering, terrorist and proliferation



financing and examines how money is laundered and terrorism is funded. It promotes global standards to mitigate the risks and assesses whether countries are taking effective action.

### 19.3 Performance measurement framework for Target 16.4

**Custodian agencies** for Indicator 16.4.1 are the **UNODC and UNCTAD**. This is a Tier II indicator.

Table 16.1 sets out the criteria for scoring the dimensions and sub-dimensions of Target 16.4.

**Table 16.1. Performance Measurement Framework Target 16.4**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<p><b>Target 16.4</b>  <i>By 2030, significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets and combat all forms of organized crime</i></p>	<p>Indicator 16.4.1                      Total value of inward and outward illicit financial flows (in current USD)</p>	<p><b>G16.D1: Extent of measures to prevent illicit financial flows</b></p>	<p><b>Sub-dimension 1:</b> Extent to which a country actively cooperates internationally in exchanging financial information to prevent tax evasion</p>	<p>A</p>	<p>The country actively cooperates and exchanges information with international and bilateral agencies that combat IFFs and other economic crimes as measured by Global Forum Assessment:</p> <ul style="list-style-type: none"> <li>i. The country is rated as “Compliant” on the Global Forum peer reviews to assess the standard of exchange of information on request (EOIR)</li> <li>ii. The AEOI legal framework for the AEOI Standard is determined to be “in place”</li> <li>iii. The effectiveness in practice of a country’s implementation of the AEOI Standard is rated as On Track during the Global Forum peer review</li> </ul>

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
					<ul style="list-style-type: none"> <li>iv. The mutual administrative assistance convention (MAAC) is in ratified and in force.</li> </ul>
				B	<ul style="list-style-type: none"> <li>i. The country is rated as “Largely Compliant” on the Global Forum peer reviews to assess the standard of EOIR</li> <li>ii. The AEOI legal framework for the AEOI Standard is determined to be “In place but needs improvement”</li> <li>iii. The effectiveness in practice of a country's implementation of the AEOI Standard is rated as Partially Compliant during the Global Forum peer review; or the legal framework and/ or effectiveness in practice of the AEOI Standard has not been reviewed</li> <li>iv. The MAAC is in signed but not ratified.</li> </ul>
				C	<ul style="list-style-type: none"> <li>i. The country is rated as “Partially Compliant” on the Global Forum peer reviews to assess the standard of EOIR</li> <li>ii. The AEOI legal framework for the AEOI Standard is determined to be “Not in place”</li> </ul>

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
					<ul style="list-style-type: none"> <li>iii. The effectiveness in practice of a country's implementation of the AEOI Standard is rated as "Non-Compliant" during the Global Forum peer review; or the country has not committed to AEOI</li> <li>iv. The MAAC has been requested to join</li> </ul>
				D	The requirement of a "C" score are not met.
			<b>Sub-dimension 2:</b> Extent to which a country actively prevents money laundering	A	<ul style="list-style-type: none"> <li>i. Technical compliance of a country with FATF recommendations is assessed as compliant OR largely compliant in at least 35 recommendations AND no recommendation is rated non-compliant</li> <li>ii. Effectiveness of a country's Anti-money laundering/ Counter-Terrorism Financing system is assessed as High OR Substantial in at least 7 Immediate Outcomes AND none is assessed Low</li> </ul>
				B	<ul style="list-style-type: none"> <li>i. Technical compliance of a country with FATF recommendations is assessed as Compliant OR Largely compliant in at least 30 recommendations</li> <li>ii. effectiveness of a country's Anti-money laundering/ Counter-Terrorism Financing system is assessed as High OR Substantial in at least 5 Immediate Outcomes</li> </ul>

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
				C	<ul style="list-style-type: none"> <li>i. Technical compliance of a country with FATF recommendations is assessed as Complaint OR Largely compliant in at least 25 recommendation</li> <li>ii. Effectiveness of a country's Anti-money laundering/ Counter-Terrorism Financing system is assessed as is assessed as High OR Substantial in at least 3 Immediate Outcomes</li> </ul>
				D	The requirement of a "C" score are not met.
			<b>Sub-dimension 3:</b> Extent to which a country conducts tax crime investigations	A	The country scores <i>Aspirational/Established</i> on at least 8 of the 10 Global principles on fighting tax crimes developed by the Task Force on Tax Crimes and Other Crimes (TFTC)
				B	The country scores <i>Progressing</i> on at least 8 of the 10 Global principles on fighting tax crimes
				C	The country scores <i>Emerging</i> on at least 8 of the 10 Global principles on fighting tax crimes
				D	The requirements of a 'C' score are not met.

### Anti-corruption measures

Strengthening anti-corruption measures in tax administrations and tax systems is an integral part of advancing effective economic governance. Studies have shown that corruption negatively impacts overall tax revenue. Tax administrations are often perceived to be most vulnerable to corruption due to many factors including the complexity of tax legislation, discretionary powers of tax officials and rent-seeking behavior, among others. The risks of corruption are tied both to the public and private sector as well as to political actors and are found in every area of tax administration – from the policy

level to the organizational level, to the individual/service delivery level. Assessing how corruption risks manifest across different levels and putting in place measures to mitigate them are critical for strengthening integrity and effectiveness of tax administrations.

Using available political economy analysis or investing in corruption risk assessments are important tools in this regard. Efforts to address corruption are wide-ranging – from prevention to enforcement – and should be tailored to the country’s context. These could include legal reform to increase tax compliance, capacity building for tax officials and the private sector, automation/digitalization of tax administrations, strengthening human resource management (systems of recruitment, ethics/integrity codes, etc.), strengthening internal mechanisms for audit and investigation, amongst others. A system audit of the tax administration, to see where there are points in the system that are corruption incubators, is a useful way of identifying the pressure points. This may include places where the system requires negotiation between taxpayer and tax officials, or where it takes very long to process tax refund.

## 19.4 Performance measurement framework for Target 16.5

The custodian agency for Target 16.5 is UNODC. This is a Tier I indicator.

Table 16.2 sets out the criteria for scoring the dimensions and sub-dimensions of Target 16.5.

**Table 16.2 Performance Measurement Framework for Target 16.5**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 16.5</b> <i>Substantially reduce corruption and bribery in all their forms</i>	Indicator 16.5.1 Proportion of persons who had at least one contact with a public official and who paid a bribe to a public official, or were asked for a bribe by those public officials, during the previous 12 months	<b>G16-D2: Scope of measures to prevent corruption</b>	<b>Sub-dimension 1:</b> Overview of anti-corruption measures taken at the policy level, which are relevant to tax administrations	A	i. There is an independent anti-corruption body that oversees anti-corruption policies and is empowered to investigate cases of corruption. ii. Corruption experience-based surveys on experience with the tax administrations are conducted on a regular basis and the results are published. iii. There are legal or non-legal frameworks in the public service to guide the ethical and professional behavior of all civil servants (E.g., whistle blower protection; conflict of interest etc.)

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
					iv. The country is reviewed by Transparency International on its annual corruption perception index and the score is above 55.
				B	<ul style="list-style-type: none"> <li>i. Same as (i), (ii) and (iii) of 'A' score.</li> <li>ii. The country is reviewed by Transparency International on its annual corruption perception index and the score is below 45.</li> </ul>
				C	<ul style="list-style-type: none"> <li>i. Any two of (i), (ii) and (iii) of 'A' score.</li> <li>ii. The country is reviewed by Transparency International on its annual corruption perception index and the score is below 35.</li> </ul>
				D	The requirements of a 'C' score are not met.
			<b>Sub-dimension 2:</b> Extent of measures taken to ensure transparency, integrity and anti-corruption at the tax administration/ organizational level	A	<ul style="list-style-type: none"> <li>i. There is an anti-corruption policy within the tax administration, including mechanisms for reporting corruption, fraud and misconduct such as an ethics or integrity unit.</li> <li>ii. There are clear operational guidelines and procedures in place in managing organizational resources, including budgeting and procurement processes.</li> <li>iii. Civil servants including tax officials are required to submit periodically declarations related to conflicts of interest and asset disclosure for scrutiny, including political positions, such as ministers, judges and parliamentarians).</li> </ul>

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
					<ul style="list-style-type: none"> <li>iv. There is a code of conduct/code of ethics for tax officials.</li> <li>v. There is a transparent and merit-based system of recruitment, retention and promotion within the tax administration.</li> </ul>
				B	Same as (i), (ii), (iii) and (iv) of 'A' score.
				C	Any three of (i), (ii), (iii) and (iv) of 'A' score.
				D	The requirements of a 'C' score are not met.
			<b>Sub-dimension 3:</b> Extent of measures taken to prevent corruption at the taxpayers' level.	A	<ul style="list-style-type: none"> <li>i. There is clear guidance and information that is regularly updated and published for taxpayers on tax regulations, requirements and processes for individuals, businesses and other entities.</li> <li>ii. There are (digital or non-digital) systems in place to detect tax evasion, fraud and other tax crimes.</li> <li>iii. There are systems in place for filing tax declarations and paying taxes due, electronically.</li> <li>iv. There are mechanisms in place for taxpayers to provide feedback or complaints related to corruption, fraud and misconduct</li> <li>v. There is an independent tax ombudsman that investigates complaints from taxpayers on systemic tax problems</li> </ul>
				B	Same as (i), (ii), (iii) and (iv) of 'A' score.

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
				C	Any three of (i), (ii), (iii) and (iv) of 'A' score.
				D	The requirements of a 'C' score are not met.

### Effective, accountability and transparency

Transparency and accountability are central pillars of effective governance systems. Their institutionalization reflects the principle that fiscal institutions should be answerable for the way they use public resources and exercise authority. To enhance public confidence and trust, tax administrations should be openly accountable for their actions within a framework of responsibility to the minister, legislature, and general public.

Examples of good practices that facilitate transparency and accountability include: (i) external oversight of the financial and operational performance; (ii) an internal audit unit responsible for adherence to the administration's internal control, risk management, and governance frameworks; (iii) public reporting of annual financial and operational performance as well as future strategies and plans.<sup>269</sup>

### Civil society engagement to strengthen inclusive governance

Civil society plays an important role in holding states accountable for the use of tax revenues and in engaging with state actors to respond to the needs of taxpayers. In this regard, the Addis Tax Initiative Declaration, for example, highlights the importance of enhancing the space and capacity for accountability stakeholders in partner countries to engage in tax and revenue matters. Constructive engagement between civic and state actors plays an important role in increasing trust, confidence and compliance in tax systems. However, to what extent, and how, civil society and other non-state actors can engage effectively in strengthening tax administration should be determined through a country context analysis, recognizing the different incentives, interests and political contestations on this topic.

Civil society organizations on the ground can be an important stakeholder for government led engagement with non-state actors, as independent voices fostering well-informed debate on tax policies and administration. The involvement of CSOs can be monitored through (i) the level of engagement and consultation of the population in designing fiscal programs and (ii) through stakeholder and client surveys.

<sup>269</sup> TADAT (2019). *TADAT Field Guide 2019 Edition*. TADAT Secretariat. Fiscal Affairs Department. International Monetary Fund.



## 19.5 Performance measurement framework for Target 16.6

The custodian agency for indicator 16.6.1 is the **World Bank**. This is a Tier I indicator.

The custodian agency for indicator 16.6.2 is the **UNDP**. This is a Tier II indicator.

Table 16.3 sets out the criteria for scoring the dimensions and sub-dimensions of Target 16.6.

**Table 16.3 Performance Measurement Framework for Target 16.6**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 16.6</b> <i>Develop effective, accountable and transparent institutions at all levels</i>	16.6.1 Primary government expenditures as a proportion of original approved budget, by sector (or by budget codes or similar)	<b>G16-D3: Scope of measures to integrate effective governance through transparency and accountability</b>	<b>Sub-dimension 1:</b> Extent of external oversight of the financial and operational performance of the tax administration	A	i. An external oversight institution under the parliament conducts an annual audit of the tax administrations' financial performance. ii. An external oversight institution under the parliament conducts an annual performance audit of tax administration's operations. iii. The findings of the external reviews are published
				B	i. Same as (i) of 'A' score ii. An external oversight institution under the parliament conducts a performance audit of tax administration's operations once every two years. iii. The findings of the external reviews are published
				C	i. Same as (i) of 'A' score ii. There is no external oversight of the performance of tax administration's operations. iii. The findings of the external reviews are not published

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
				D	The requirements for a 'C' score are not met.
			<b>Sub-dimension 2:</b> Extent of internal assurance provided to monitor adherence to the internal control framework	A	<ul style="list-style-type: none"> <li>i. The tax administration has an independent internal audit department/unit reporting directly to the Head of the tax administration that conducts an annual independent review of the financial performance of the tax administration.</li> <li>ii. The internal audit department/unit conducts an annual performance audit and IT systems audit of the tax administration's main operations.</li> <li>iii. The tax administration acts on the findings and recommendations of the internal audit department.</li> </ul>
				B	<ul style="list-style-type: none"> <li>i. Same as (i) of 'A' score.</li> <li>ii. The internal audit department/unit conducts a performance audit and IT systems audit of the tax administration's main operations once every two years.</li> <li>iii. The tax administration acts on the findings and recommendations of the internal audit department.</li> </ul>
				C	<ul style="list-style-type: none"> <li>i. Same as (i) of 'A' score</li> <li>ii. There is no internal performance audit of the tax administration's operations.</li> <li>iii. The tax administration acts on the findings and recommendations of the internal audit department.</li> </ul>

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
				D	The requirements for a 'C' score are not met.
			<b>Sub-dimension 3:</b> Level of public reporting of annual financial and operational performance as well as future strategies and plans	A	i. The tax administration prepares an annual report highlighting its financial and operational performance of the previous fiscal year. ii. The tax administration prepares a multi-year strategy highlighting plans for the future. iii. The annual report and strategic plan are made public.
				B	i. Same as (i) of 'A' score. ii. Same as (ii) of 'A' score. iii. Only the annual report is published.
				C	i. Same as (i) of 'A' score. ii. No strategic plan is prepared. iii. The annual report is published.
				D	The requirements for a 'C' score are not met.
	Indicator 16.6.2 Proportion of population satisfied with their last experience of public services	<b>G16-D4: Extent of measures to obtain public feedback and monitor public confidence in the tax system</b>	<b>Sub-dimension 1:</b> Monitoring of public confidence in the tax system through stakeholder surveys	A	i. An independent expert survey organization conducts a survey (commissioned by the Government) based on a statistically valid sample of citizens, taxpayers and other stakeholders to monitor public confidence in the tax system. ii. The survey is conducted at least once every two years. iii. The survey results are published.

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
				B	Same as (i) and (ii) of A score
				C	i. Same as (i) of 'A' score. The survey is conducted on an ad hoc basis
				D	The requirements of a 'C' score are not met.
			<b>Sub-dimension 2:</b> Methods used to ensure public engagement and consultation in designing the tax system	A	i. The ministry of finance regularly consults taxpayers and other stakeholders before formulating tax policy changes. ii. The tax administration regularly consults taxpayers when developing new procedures. iii. Taxpayers and their representatives are involved in the testing of new systems or forms.
				B	Any two of (i), (ii) and (iii) of 'A' score.
				C	Any one of (i), (ii) and (iii) of 'A' score
				D	The requirements of a 'C' score are not met.

### Participation of developing countries in the institutions of global governance

Fair representation of developing countries in international institutions active in tax policy field is a necessary condition for designing tax policies that will produce equitable and sustainable outcomes. For many years, the leading policy fora active in the field of taxation were biased towards protecting financial interests of large, capital-exporting, industrialized economies, while interests of developing, lower-income countries have often been overlooked, not lastly due to their limited opportunities to participate in the policy making process.

In recent years, some leading institutions in the field have made an effort to improve their inclusivity

and to balance representation of developed and developing countries. However, while such measures did manage to increase the number of developing countries participating in international tax policy making formally, in terms of real opportunities to impact design of international tax standards, and influence gap between developed and developing countries remains. Unequal representation at international tax fora leads to unequal policy outcomes and deepens the inequality between the Global South and the Global North. Dissatisfaction of developing countries with the dominance of developed economies over setting the rules of international taxation led to a group of African countries demanding the center of tax policy making shifting from the OECD to the UN with the Resolution A/C.2/77/L.11/REV.1 at the United Nations General Assembly on “Promotion of inclusive and effective international tax cooperation at the United Nations”. Having senior Ministry of Finance officials attend and participate in these international meetings of tax professions tends to be very helpful.

## 19.6 Performance measurement framework for Target 16.8

The custodian agencies for Indicator 16.8.1 are **UNDESA and FSDO**. This is a Tier I indicator.

Table 16.4 sets out the criteria for scoring the dimensions and sub-dimensions of Target 16.8

**Table 16.4. Performance Measurement Framework for Target 16.8**

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
<b>Target 16.8</b> <i>Broaden and strengthen the participation of developing countries in the institutions of global governance</i>	16.8.1 Proportion of members and voting rights of developing countries in international organizations	<b>G16 -D5: Membership of International Organizations</b>	<b>Sub-dimension 1:</b> Extent to which countries enjoy equal representation in international organizations	A	<ul style="list-style-type: none"> <li>i. Developed and developing countries are a part of the regional bodies covering their geographic location and seek advice from that body when setting a position in the policy debate.</li> <li>ii. Countries understand the pros and cons of building a group based policy position, that is mutually beneficial to countries in a particular geographic coverage, or within an economic grouping of similarly minded countries. These groupings provide an environment for the discussion of policy priorities.</li> </ul>

Target	Indicator	Dimension	Sub-dimension	Score	Criteria
					<ul style="list-style-type: none"> <li>iii. Countries exercise active voting rights in policy discussions happening at international level, at times voting individually and at times voting as a block to protect the interests of a group.</li> <li>iv. Countries use its regional representatives to voice domestic policy concerns with a view of steering the international tax agenda towards its policy priorities.</li> <li>v. Country engages in the building of international consensus that is fair towards the needs of developed and developing countries.</li> <li>vi. The country denounces international tax policy framing settings that are not inclusive of the opinions of all countries.</li> </ul>
				B	Countries meet three of the six criteria
				C	i. Countries meet two of the six criteria
				D	The requirements for a 'C' score are not met.

## Bibliography

1. Abdo S. Yazbeck, Agnes L. Soucat, Ajay Tandon, Cheryl Cashin, Joseph Kutzin, Julia Watson, Sarah Thomson, Son Nam Nguyen, Tamas Evetovits (2023) *Addiction to a bad idea, especially in low- and middle-income countries: Contributory health insurance*, Social Science & Medicine, Volume 320, 2023, 115168.
2. Abshari, Z.; Jenkins, G.P.; Kuo, C.-Y.; Shahee, M. Progressive Taxation versus Progressive Targeted Transfers in the Design of a Sustainable Value Added Tax System. *Sustainability* 2021, 13, x. <https://doi.org/10.3390/>
3. Accordino, J.; Johnson, G.T. (2000) *Addressing the vacant and abandoned property problem*. J. Urban Aff. 2000, 22, 301–315.
4. AfDB (2010) *Domestic Resource Mobilization for Poverty Reduction in East Africa*
5. Akerlof, George, and others (2019) Economists' Statement on Carbon Dividends. <http://www.econstatement.org>.
6. Aliu, F., Redonda, A., and C. von Haldenwang (2022). *The Global Tax Expenditures Database (GTED) Progress Report*. Deutsches Institut für Entwicklungspolitik GmbH: <https://doi.org/10.23661/r2.2022>
7. Amsterdam, Elsevier. Auerbach, A. J. and James R. Hines Jr. (2002) *Taxation and Economic Efficiency*, Handbook of Public Economics Volume 3.
8. Appelt, S. et al. (2016) *Tax Incentives: Evidence on design, incidence and impacts* OECD Science, Technology and Industry Policy Papers, OECD Publishing, Paris, <https://doi.org/10.1787/5jlr8fldqk7j-en>.
9. Asian Development Bank, Asian Development Bank Institute (2015) *Integrating SMEs into global value chains: Challenges and policy actions in Asia*. Mandaluyong City, Philippines: Asian Development Bank <https://www.adb.org/sites/default/files/publication/175295/smes-global-value-chains.pdf>
10. ATAF (2022). 38 countries in Africa are members of ATAF.
11. Auerbach, A.J. (1985) *The Theory of Excess Burden and Optimal Taxation*, Handbook of Public
12. Auerbach, A.J. (2002) *Taxation and Corporate Financial Policy*, Auerbach, A.J. and M. Feldstein (eds.), Handbook of Public Economics, Vol. 3, Elsevier, North-Holland.
13. Awasthi, Rajul, Katie Pyle, Namita Aggarwal, Parvina Rakhimova (2022) *Gender-based discounts of taxes related to properties: Role in encouraging female property ownership. A case study of Indian states and cities*. World Bank Working Paper (forthcoming). World Bank.
14. Bahl, Martinez-Vazquez, and Youngman, Eds. (2008). *Making the Property Tax Work: Experiences in Developing and Transitional Countries*. Lincoln Institute of Land Policy.
15. Bahl, R. and Bird, R. (2008) *Subnational Taxes in Developing Countries: The Way Forward*, Public Budgeting & Finance 28.4: 1–25
16. Bak, A. K. F. (2019) *When the fiscal social contract is not about tax: Understanding the limited role of taxation in social accountability in Senegal*, [https://politica.dk/fileadmin/politica/Dokumenter/Afhandlinger/ane\\_karoline\\_bak.pdf](https://politica.dk/fileadmin/politica/Dokumenter/Afhandlinger/ane_karoline_bak.pdf)
17. Baumol and Oates. (1988) *On The Theory of Externalities*. Macmillan.
18. Beach and van den Boogaard (2022). *Tax and Governance in the Context of Scarce Revenues:*

- Inefficient Tax Collection and its Implications in Rural West Africa*. ICTD Working Paper 139.
19. Beach, Rachel and Venessa van den Boogard (2022). *Tax and Governance in the Context of Scarcities Revenues: Inefficient Tax Collection and its Implications in Rural West Africa*. International Centre for Tax and Development. Feb 2022. <https://www.africaportal.org/content-partners/international-centre-for-tax-and-development/>
  20. Boucher, J. and G. Billard (2019) *The challenges of measuring plastic pollution, Field Actions Science Report*, Vol. 2019/Special Issue 19, pp. 68-75.
  21. Bouët, Antoine and David L. Debucquet (2010). *Economics of Export Taxation in a Context of Food Crisis*. International Food Policy Research Institute (IFPRI). IFPRI Discussion Paper 00994. June 2010.
  22. Callejas, Jerónimo, Joshua Linn and Jevgenijs Steinbuks (2022) *Welfare and Environmental Benefits of Electric Vehicle Tax Policies in Developing Countries: Evidence from Colombia*, World Bank Policy Research Working paper 10001, April 2022
  23. Cashin, C., Sparkes, S., & Bloom, D. (2017). *Earmarking for health: from theory to practice* (No. WHO/HIS/HGF/HFWorkingPaper/17.5). World Health Organization
  24. Chaloupka, F. J., Yurekli, A., & Fong, G. T. (2012). *Tobacco taxes as a tobacco control strategy*. *Tobacco control*, 21(2), 172-180.
  25. Chimhowu. Admos & Phil Woodhouse (2006) *Customary vs Private Property Rights? Dynamics and Trajectories of Vernacular Land Markets in Sub-Saharan Africa*. *Journal of Agrarian Change*. Citations: 155. May 2006. <https://doi.org/10.1111/j.1471-0366.2006.00125.x>
  26. Chris Lane (2022). *The IMF and Health Taxes: Progress Falts During COVID-19 Emergency*. CGD Notes. Center for Global Development. March 2022.
  27. Christian E. Weller and Manita Rao (2008) *Can Progressive Taxation Contribute to Economic Development?* Political Economy Research Institute Working Paper Series Number 176. [https://scholarworks.umass.edu/cgi/viewcontent.cgi?article=1147&context=peri\\_workingpapers](https://scholarworks.umass.edu/cgi/viewcontent.cgi?article=1147&context=peri_workingpapers)
  28. Chuck Marr, Samantha Jacoby and Kathleen Bryan (2019) *Substantial Income of Wealthy Households Escapes Annual Taxation or Enjoys Special Tax Breaks*. Center on Budget and Policy Priorities, Washington DC. November 13, 2019. <https://www.cbpp.org/research/federal-tax/substantial-income-of-wealthy-households-escapes-annual-taxation-or-enjoys>
  29. Cobham, A. and Jansky, P. (2018). *Global Distribution of Revenue Loss from Corporate Tax Avoidance: Re-estimation and Country Results*. *Journal of International Development* 30, 206–232. DOI: 10.1002/jid.3348.
  30. Coelho, Maria, Aieshwarya Davis, Alexander Klemm, and Carolina Osorio Buitron (2022) *Gendered Taxes: The Interaction of Tax Policy with Gender Equality*. IMF Working Paper No. 22/26.
  31. Cornago, E., P. Börkey and A. Brown (2021) *Preventing single-use plastic waste: Implications of different policy approaches*. OECD Environment Working Papers, No. 182, OECD Publishing, Paris, <https://dx.doi.org/10.1787/c62069e7-en>.
  32. Corsi, A. and Selod, H. (2023). *Land Matters. Can Better Governance and Management of Scarcity Prevent a Looming Crisis in the Middle East and North Africa?*, World Bank.
  33. Corthay, Laurent; Loeprick (2010) *Taxing Tourism in Developing Countries : Principles for -Improving the Investment Climate Through Simple, Fair, and Transparent Taxation*. *Investment Climate in Practice*; No. 14. World Bank, Washington, DC. World Bank.



34. Council of Economic Analysis (CAE) and German Council of Economic Experts (GCEE) (2019) *A Uniform Carbon Price for Europe: Joint Statement of the CAE and the GCEE*. CAE and GCEE. <http://www.cae-eco.fr/Communique-commun-des-conseils-economiques-francais-et-allemand-Joint-statement>.
35. Credit Suisse (2020) *Global Wealth Databook 2018*
36. D'Ambrières, W. (2019), *Plastics recycling worldwide: Current overview and desirable changes*, Field Actions Science Report, Vol. 2019/Special Issue.
37. Devercelli, Amanda E. and Frances Beaton-Day. *Better Jobs and Brighter Futures: Investing in Childcare to Build Human Capital*. World Bank. December 2020.
38. Doll, R., Peto, R., Boreham, J., & Sutherland, I. (2004). *Mortality in relation to smoking: 50 years' observations on male British doctors*. *Bmj*, 328(7455), 1519.
39. ECOSOC (2018) Committee for Development Policy's Report on the twentieth session (12–16 March 2018) Economic and Social Council Official Records, 2018 Supplement No. 13 (E/2018/33)
40. ECOSOC (2019). ECOSOC- special meeting on International Cooperation in Tax Matters \_ Summary.pdf. April 2019. New York. [https://www.un.org/esa/ffd/wp-content/uploads/2019/11/2019-ECOSOC-Tax-meeting\\_Summary.pdf](https://www.un.org/esa/ffd/wp-content/uploads/2019/11/2019-ECOSOC-Tax-meeting_Summary.pdf)
41. Elise Gould (2014). *Inequality Is the Main Cause of Persistent Poverty*. Economic Policy Institute, Washington DC. 2014.
42. ESCR-NET (2022) *Collective Position on Data for Economic, Social, and Cultural Rights*
43. FAO. *Low-Income Food-Deficit Countries (LIFDCs) List Updated June 2023*.
44. FAO (2016). *How can trade and related policies be used to contribute to food security objectives?* Trade Policy Briefs, No. 19. May 2016. <https://www.fao.org/3/i5737e/i5737e.pdf>
45. FAO and OECD. (2018). *Food Security and Nutrition: Challenges for Agriculture and the hidden potential of Soil*. A Report to the G20 Deputies. February 2018.
46. FAO Yearbook (2019). Fisheries and Aquaculture Statistics.2019. <https://www.fao.org/3/cb7874t/cb7874t.pdf>
47. FAO, EU, OECD, UN, WB (2014) System of Environmental and Economic Accounting (SEEA): *Applications and Extensions, Environmental Impact of Products (EIPRO)* (2006) Institute of Prospective Technological Studies, European Science and Technology Observatory and European Commission Joint Research Centre
48. Farid, Mai, Michael Keen, Michael Papaioannou, Ian W. H. Parry, Catherine Pattillo, and Anna Ter-Martirosyan (2016) *After Paris: Fiscal, Macroeconomic, and Financial Implications of Climate Change*, IMF Staff Discussion Note 16/01, International Monetary Fund, Washington, DC
49. Fish, Paul. (2018). *Practical Guidance Note: Training Manual for Implementing Property Tax Reform with a Points-Based Valuation*. International Centre for Tax and Development, Africa Tax Administration Paper No. 2.
50. Fjeldstad, O.H., Chambas, G., Brun, J.F. (2014). *Local Government Taxation in Sub-Saharan Africa: A Review and An Agenda for Research*. Chr. Michelsen Institute (CMI). Working paper 2014:2.
51. Flues, F. and K. van Dender (2020) *Carbon pricing design: Effectiveness, efficiency and feasibility: An investment perspective*, OECD Taxation Working Papers, No. 48, OECD Publishing, Paris, <https://doi.org/10.1787/91ad6a1e-en>.

52. Gadenne, L. (2017) *Tax Me, But Spend Wisely: The Political Economy of Taxes, Evidence from Brazilian Local Governments*. American Economic Journal: Applied Economics 9:1: 274–314
53. González Cabral, A., S. Appelt and T. Hanappi (2021) *Corporate effective tax rates for R&D: The case of expenditure-based R&D tax incentives*, OECD Taxation Working Papers, No. 54, OECD Publishing, Paris, <https://doi.org/10.1787/ff9a104f-en>.
54. Goulder, Lawrence H., and Ian W. H. Parry. 2008. *Instrument Choice in Environmental Policy*. Review of Environmental Economics and Policy 2: 152–74.
55. Griswold, D. (2022) *We must wipe out 'pink taxes,' tampon taxes, and period poverty*, Bloomberg Tax. <https://news.bloombergtax.com/tax-insights-and-commentary/we-must-wipe-out-pink-taxes-tampon-taxes-and-period-poverty>
56. Grown, Caren and Imraan Valodia (editors). *Taxation and Gender Equity. A Comparative Analysis of Direct and Indirect Taxes in Developing and Developed Countries*. Routledge 2010
57. Guyer, J. (1992) *Representation Without Taxation: An Essay on Democracy in Rural Nigeria: 1952-1990*. African Studies Review 35:1: 41–79
58. Hamilton, Bob; Kuo, Chun-Yan; and Poddar, Satya N. (1988) *Considerations for the Tax Mix*. Osgoode Hall Law Journal 26.2 (1988) : 259-285. <http://digitalcommons.osgoode.yorku.ca/ohlj/vol26/iss2/2>
59. Hannah Guevara (2021). *Childcare & Pre-K are Strategic Economic Investments: Impact on Health*. First Five Years Fund. Washington DC. November 19, 2021.
60. Hansel and Bergh (2021). *Taxing interacting externalities of ocean acidification, global warming, and eutrophication*. Natural Resource Modeling. DOI: 10.1111/nrm.12317.
61. Higgins, Sean, and Nora Lustig (2016) *Can a Poverty-Reducing and Progressive Tax and Transfer System Hurt the Poor?* Journal of Development Economics 122, pp. 63–75
62. Homewood, M. (2021). *157 packets of bacon and €1,000 worth of cheese: Why supermarkets need to be taxed for food waste*. August 18, 2016.
63. Hsieh, C.-T., E. Hurst, C.I. Jones, and P.J. Klenow (2019) *The Allocation of Talent and U.S. Economic Growth*. Econometrica, 87: 1439-1474
64. Hutchinson, B., Brispat, F., Calderón Pinzón, L. V., Sarmiento, A., Solís, E., Nugent, R., ... & Sandoval, R. C. (2022). *The case for investment in tobacco control: lessons from four countries in the Americas*. Rev Panam Salud Publica; 46, oct. 2022. Special Issue Tobacco Control.
65. IBGE (2011), *Eco-taxation on disposable plastic bags, kitchen utensils, food wrap & aluminium foil (pic-nic tax)*, Belgium; Muelenaere, M. (2014), Honnie et jugée piètre gagnouse, la «taxe pique-nique» est morte, Le Soir, <https://www.lesoir.be/art/679195/article/demain-terre/developpement-durable/2014-10-13/honnie-et-jugee-pietre-gagneuse-taxe-pique-nique-est-morte>
66. IMF (2012). *Fiscal Regimes for Extractive Industries: Design and Implementation*. Fiscal Affairs Department. IMF Policy Paper. August 2012
67. IMF (2016). International Survey of Revenue Administration (ISORA) Volume 1. Recurring budget of the tax administration (pp. 158-160). 2016.
68. IMF (2019), *Fiscal Monitor: How to Mitigate Climate Change*, IMF, Washington, D.C
69. IMF (2020). *IMF's Role in Infrastructure Governance*
70. IMF/OECD (2021), *Tax Policy and Climate Change: IMF/OECD Report for the G20 Finance*

- Ministers and Central Bank Governors, April 2021, Italy, [www.oecd.org/tax/tax-policy/imf-oecd-g20-report-tax-policy-and-climate-change.htm](http://www.oecd.org/tax/tax-policy/imf-oecd-g20-report-tax-policy-and-climate-change.htm)
71. Innovation for Sustainable Development (2019) *South Korea's food waste reduction policies*. April 2019
  72. Innovation Seeds (2012) *South Korea's Food Waste Reduction Policies*
  73. International Monetary Fund (2017). *Building Fiscal Capacity in Fragile States*.
  74. Irem Guceri (2018). *Will the real R&D employees please stand up? Effects of tax breaks on firm-level outcomes*. International Tax and Public Finance, Springer; International Institute of Public Finance, vol. 25(1), pages 1-63, February.
  75. Irem Guceri and Li Liu (2019). *Effectiveness of Fiscal Incentives for R&D: Quasi-experimental Evidence*. American Economic Journal: Economic Policy 2019, 11 (1), 266-291
  76. Jain, V., Crosby, L., Baker, P., & Chalkidou, K. (2020). *Distributional equity as a consideration in economic and modelling evaluations of health taxes: a systematic review*. Health Policy, 124(9), 919-931.
  77. James B. Davies, Susanna Sandström, Anthony Shorrocks, and Edward N. Wolff (2008) *The Level and Distribution of Global Household Wealth*. National Bureau of Economic Research. April 2008.
  78. JNCW; UN WOMEN. (2019). *Fiscal Policy, Taxation and Gender Equality in Jordan*. The Jordan National Commission for Women and UN Women. <https://women.jo/en/node/7907>
  79. John Wu (2015). *Fueling Innovation: The Role of R&D in Economic Growth*. Information Technology & Innovation Foundation. December 2015.
  80. Juul, K. (2006) 'Decentralization, Local Taxation and Citizenship in Senegal', Development and Change 37.4: 821–46; Beach, R. (2018). *The Hunt for Revenues in a Poor State*, PhD thesis, Aarhus: Politica.
  81. Kamvasinou, K (2011) *The public value of urban vacant land*. Proc. ICE Munic. Eng. 2011, 164, 157–166.
  82. Kelly, Roy; White, Roland; Anand, Aanchal. (2020). *Property Tax Diagnostic Manual*. World Bank, Washington, DC. <https://openknowledge.worldbank.org/handle/10986/34793>
  83. Khaled Abdel-Kader and Ruud De Mooij (2020). *Tax Policy and Inclusive Growth*. IMF Working paper. WP/20/271. IMF. 202.
  84. Kim, Gunwoo (2016) *The Public Value of Urban Vacant Land: Social Responses and Ecological Value*. Sustainability 8(5). 486
  85. Kummu, et al. (2012) *Lost food, wasted resources: global food supply chain losses and their impacts on freshwater, cropland, and fertiliser use*. Science of the Total Environment. Vol. 438, 477–489.
  86. Labandeira, X., J. Labeaga and X. López-Otero (2017). *A meta-analysis on the price elasticity of energy demand*. Energy Policy, Vol. 102, pp. 549-568,
  87. Lee, Seunghoon (2017). *The Benefits and Costs of a Small Food Waste Tax and Implications for Climate Change Mitigation*. Working paper.
  88. Leung, Leonard and Glenn P. Jenkins. *A Cost Benefit Analysis of Maize Production and Marketing in Uganda*. Queen's University, Kingston, Canada. Development Discussion Paper 2012-04

89. Lundstøl ICTD (2018) <https://www.ictd.ac/publication/tax-in-development-towards-a-strategic-aid-approach>
90. Lustig N et al (2014) *The impact of Taxes and Social Spending on Inequality and Poverty in Argentina, Bolivia, Brazil, Mexico, Peru, and Uruguay*, 'Public Finance Review, 42, no. 3 (2014)
91. Mathauer, I., Kutzin, J., & World Health Organization. (2018). *Voluntary health insurance: potentials and limits in moving towards UHC: policy brief* (No. WHO/HIS/HGF/PolicyBrief/18.5). World Health Organization.
92. Maya Peterson (2021). New Report from OECD: *Supporting Meaningful Interactions in Early Childhood Education and Care*. First Five Years Fund. Washington DC. August 4, 2021
93. Mbow, et al., (2019). Chapter 5. Food security. *In Climate Change and Land: An IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems*. Intergovernmental Panel on Climate Change. p. 200
94. Mikesell. (2003). *International Experience with the administration of local taxes: A Review of Practices and Issues*. Presentation to the World Bank Thematic Group on Taxation and Tax Policy
95. Moore, M. (2007) *How Does Taxation Affect the Quality of Governance?* IDS Working Paper Series, 280, Brighton: Institute of Development Studies.
96. Moore, M. (2008). *Between coercion and contract: competing narratives on taxation and governance*. Taxation and state-building in developing countries.
97. Musgrave, R.A. (1998) *Who Should Tax, Where, and What?* International Library of Critical Writings in Economics 88: 63–80.
98. Mwondha, Michael et al. *Why African Tax Authorities Should Employ More Women: Evidence from the Uganda Revenue Authority*. International Centre for Tax & Development. Working Paper85. November 2018
99. NORAD (2020). *Tax for Development, Portfolio Strategy 2020-2025*. Oslo March 2020.
100. NYC Food Policy Center (2020) *South Korea Recycles Food Waste in Effort to Become Zero-Waste Society*. NYC Food Policy Center, March, 2020
101. OECD (2008), "Tax and economic growth", Economics Department Working Paper, No. 620.
102. OECD (2017), *Investing in Climate, Investing in Growth*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264273528-en>.
103. OECD (2017), *Taxation and Skills*, OECD Tax Policy Studies, No. 24, OECD Publishing, Paris. <https://doi.org/10.1787/9789264269385-en>.
104. OECD (2018), *Effective Carbon Rates 2018. Pricing Carbon Emissions Through Taxes and Emissions Trading*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264305304-en>.
105. OECD (2019), *Taxing Energy Use 2019: Using Taxes for Climate Action*, OECD Publishing, Paris, <https://doi.org/10.1787/058ca239-en>.
106. OECD (2019). *Taxation in Agriculture*. [https://www.oecd-ilibrary.org/sites/073bdf99-en/1/1/1/index.html?itemId=/content/publication/073bdf99-en&\\_csp\\_=eff68945dd337defc6e9948e27bfd6&itemIGO=oecd&itemContentType=book](https://www.oecd-ilibrary.org/sites/073bdf99-en/1/1/1/index.html?itemId=/content/publication/073bdf99-en&_csp_=eff68945dd337defc6e9948e27bfd6&itemIGO=oecd&itemContentType=book)
107. OECD (2021). *Developing Countries and the OECD/G20 Inclusive Framework on BEPS*. OECD Report for the G20 Finance Ministers and Central Bank Governors. October 2021, Italy
108. OECD (2021). OECD R&D tax incentives database, 2021 edition. OECD

109. OECD (2021). *Starting Strong VI: Supporting Meaningful Interactions in Early Childhood Education and Care*, Starting Strong, OECD Publishing, Paris, <https://doi.org/10.1787/f47a06ae-en>.
110. OECD (2021). *Taxing Energy Use for Sustainable Development: Opportunities for energy tax and subsidy reform in selected developing and emerging economies*. January 2021. OECD. <https://www.oecd.org/tax/tax-policy/taxing-energy-use-for-sustainable-development.pdf>
111. OECD (2022), *Tax Policy and Gender Equality: A Stocktake of Country Approaches*, OECD Publishing, Paris, <https://doi.org/10.1787/b8177aea-en>.
112. OECD. *Better agro-food policies are crucial to improving global food security*. <https://www.oecd.org/agriculture/topics/food-security/>
113. OECD. OECD Data: Tax on Property Data. <https://data.oecd.org/tax/tax-on-property.htm>
114. Olivier Bizimana, Laura Jaramillo, Saji Thomas and Jiae Yoo (2021). *Scaling up quality Investment in South Asia*. IMF Working Paper. April 2021.
115. Omer (2007). “Organic waste treatment for power production and energy supply.” *Journal of Cell and Animal Biology* Vol. 1 (2), pp. 034-047, October.
116. Parry, Ian W. H., Adele Morris, and Roberton C. Williams III. (2015) *Implementing a US Carbon Tax: Challenges and Debates*. London: Routledge
117. Parry, Ian W. H., Ruud de Mooij, and Michael Keen. (2012) “Fiscal Policy to Mitigate Climate Change: A Guide for Policymakers.” International Monetary Fund, Washington, DC.
118. Piermartini, Roberta (2004) *The Role of Export Taxes in the Field of Primary Commodities*. World Trade Organization Geneva, Switzerland. 2004.
119. Piketty, T. and E. Saez (2007), *How Progressive is the U.S. federal tax system? A historical and international perspective*, <http://dx.doi.org/10.1257/jep.21.1.3>.)
120. Piketty, T., E. Saez and G. Zucman (2013), *Rethinking capital and wealth taxation*.
121. Plekenpol, Leib, Shapiro, and Nalbantoglu. (2021). Issue Brief: *Promoting Food Donation: Tax Law and Policy*. Law School Food Law and Policy Clinic.; See also Franco and Cicatiello, 2021. *Levering waste taxes to increase surplus food redistribution at supermarkets: Gains and scenarios in Italian municipalities*. *Waste Management Journal*. Feb 15 Vol. 121, 286-295.
122. Prichard, W. (2015) *Taxation, Responsiveness, and Accountability in Sub-Saharan Africa: The Dynamics of Tax Bargaining*, Cambridge: Cambridge University Press
123. Prichard, W. (2015). *Looking forward: broader messages, policy lessons and directions for future research*. In: *Taxation, responsiveness and accountability in Sub-Saharan Africa: The dynamics of tax bargaining*. Cambridge University Press c.
124. Prichard, W. and van den Boogaard, V. (2017) “Norms, Power and the Socially Embedded Realities of Market Taxation in Northern Ghana”, *African Studies Review* 60.1: 171–94
125. Quinton, J., , Glenn Jenkins and Godwin Olasehinde-Williams. *Benefits of Hindsight: Did the 2015 Oil Price Shock and Policy Responses Play Any Role on Household Food Insecurity in Nigeria?* Queens University, Canada. Development Discussion Paper. 2023-12 JDINTL
126. Ranjbari et al (2022). “Biomass and organic waste potentials towards implementing circular bioeconomy platforms: A systematic bibliometric analysis.” *Fuel*. Volume 318, 15 June 2022.
127. Redonda, A., von Haldenwang, C., and Aliu, F. (2022): *Global Tax Expenditures Database [data set]*, Version 1.1.4, <https://doi.org/10.5281/zenodo.6334212>. [www.GTED.net](http://www.GTED.net).

128. Réka Soós, Andrew Whiteman and Gabriela Gavgas (2022) “The cost of preventing ocean plastic pollution.” OECD Environment Working Paper No. 190
129. Rodriguez, L., & Wai-poi, M. (2021). Fiscal Policy, Poverty and Inequality in Jordan: The Role of Taxes and Public Spending. World Bank, Poverty and Equity Global Practice, 1–26.
130. Sachs, J.D., Lafortune, G., Fuller, G., Drumm, E. (2023). Implementing the SDG Stimulus. Sustainable Development Report 2023. Paris: SDSN, Dublin: Dublin University Press, 2023
131. Saibal Kar (2019). “Is It Time for Some Countries to Implement a Brain Drain Tax?” Asian Development Blog. Asian Development Bank. October 2019.
132. Sebastian Beer and Dan Devlin.(2021). Is There Money on the Table? Evidence on the Magnitude of Profit Shifting in the Extractive Industries. IMF Working Paper. January 2021
133. Seely, A. (2022). Health and Social Care Levy (Repeal) Bill 2022-23. UK Parliament. House of Commons Library.
134. Shin Lee and Yoo Gyeong Hur (2015), Volume Based Waste Fee (VBMF) System for Municipal Solid Waste Korea.
135. Smoke, P.L. (2013) Why Theory and Practice Are Different: The Gap Between Principles and Reality in Subnational Revenue Systems, Atlanta: Andrew Young School of Policy Studies, Georgia State University
136. Stavins, Robert (2019) The Future of US Carbon-Pricing Policy. NBER Working Paper 25912, National Bureau of Economic Research, Cambridge, MA
137. Subhanij, Tientip; Shuvojit Banerjee and Zheng Jian (2018). Tax policy for sustainable development in Asia and the Pacific. United Nations ESCAP. 2018.
138. TADAT (2019). TADAT Field Guide 2019 Edition. TADAT Secretariat. Fiscal Affairs Department. International Monetary Fund.
139. Tax Foundation (2022) Corporate Tax Rates around the World, <https://taxfoundation.org/publications/corporate-tax-rates-around-the-world/#:~:text=The%20worldwide%20average%20statutory%20corporate,statutory%20rate%20is%2025.43%20percent>. December 13, 2022
140. The Task Force on Fiscal Policy for Health (2019) Health taxes to save lives: Employing effective excise taxes on tobacco, alcohol, and sugary beverages. Bloomberg Philanthropies.
141. Thomas Piketty (2015). Capital and Wealth Taxation in the 21st Century. National Tax Journal. June 2015, 68 (2), 449–458
142. Tonini et al (2018).Environmental impacts of food waste: Learnings and challenges from a case study on UK. Waste Management 76 (2018) 744–766; UNEP, 2021. UNEP Food Waste Index Report 2021.
143. Tonini, Albizzati and Astrup (2018). Environmental impacts of food waste: Learnings and challenges from a case study on UK, Waste Management. Vol. 76, 2018, Pages 744-766.
144. Torres, C. (2012), “Taxes and Investment in Skills”, OECD Taxation Working Papers, No. 13, OECD Publishing, Paris, <https://doi.org/10.1787/5k92sn0qv5mp-en>.
145. Toulmin, C. (2008). Securing land and property rights in sub-Saharan Africa: The role of local institutions. Land Use Policy, 26(1), 10–19. <https://doi.org/10.1016/j.landusepol.2008.07.006>
146. UN (2020). Responsible Consumption and Production. Why it matters. [https://www.un.org/sustainabledevelopment/wp-content/uploads/2019/07/12\\_Why-It-Matters-2020.pdf](https://www.un.org/sustainabledevelopment/wp-content/uploads/2019/07/12_Why-It-Matters-2020.pdf)

147. UN Handbook on Carbon Taxation for Developing Countries (2021) Financing for Sustainable Development Office
148. UNEP (2021) UNEP Food Waste Index Report 2021
149. Gustavsson, J., Cederberg, C., Sonesson, U., van Otterdijk, R., Meybeck, A. (2011) "Global Food Losses and Food Waste: Extent, Causes and Prevention." FAO, Rome, Italy.
150. United Nations (2019). Financing for Sustainable Development Report 2019. Interagency Task Force on Financing for Development. <https://developmentfinance.un.org/sites/developmentfinance.un.org/files/FSDR2019.pdf>
151. Ursula Giedion, Julian Alberti and Javier Guzman (2022). How LAC Countries Can Protect the Health of Their Populations in a New Economic Reality. Center for Global Development. (2022)
152. Van den Boogaard, V. Prichard, W., Beach, R. and Mohiuddin, F. (2022) Enabling Tax Bargaining: Supporting More Meaningful Tax Transparency and Taxpayer Engagement in Ghana and Sierra Leone. *Development Policy Review* 40.
153. Van den Boogaard, V., and R. Beach (2023). "Tax and governance in rural areas: The implications of inefficient tax collection." *Journal of International Development*. 2023:1–21
154. Van den Boogaard, V., Prichard, W., Beach, R., and F. Mohiuddin (2021). Enabling tax bargaining: Supporting more meaningful tax transparency and taxpayer engagement in Ghana and Sierra Leone, *Development Policy Review*. 2021.
155. Wudil, A. H., M. Usman et al. . Reversing Years for Global Food Security: A Review of the Food Security Situation in Sub-Saharan Africa. *International Journal of Environmental Research and Public Health*. November 2022 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9690952/#:~:text=In%202015%2C%20there%20were%2052.3,moderate%20food%20insecurity%20%5B50%5D>.
156. Weigel, Jonathan L, (2020). The Participation Dividend of Taxation: How Citizens in Congo Engage More with the State When it Tries to Tax Them. *The Quarterly Journal of Economics*, Volume 135, Issue 4, November 2020, Pages 1849-1903.
157. Withers et al., 2014. Agriculture and Eutrophication: Where Do We Go from Here? *Sustainability*, Vol 6 (9), 5853-5875; <https://doi.org/10.3390/su6095853>;
158. World Bank (2013). *World Development Report 2013: Jobs*.
159. World Bank (2016) *Sustainable Financing and Policy Models for Municipal Composting*.
160. World Bank (2020) *Djibouti Economic Update 2021; World Bank, Poverty and Equity Brief, Djibouti, April 2020*
161. World Bank (2020). *World Development Indicators. Themes – Poverty and Inequality*. <https://datatopics.worldbank.org/world-development-indicators/themes/poverty-and-inequality.html>
162. World Bank (2020). *World Development Indicators. Themes – Poverty and Inequality*.
163. World Bank (2021). *State and Trends of Carbon Pricing 2021*. World Bank, Washington, DC.
164. World Bank (2022) *Fact Sheet: An Adjustment to Global Poverty Lines*. <https://www.worldbank.org/en/news/factsheet/2022/05/02/fact-sheet-an-adjustment-to-global-poverty-lines>
165. World Bank. *DataBank*. <https://databank.worldbank.org/home>
166. World Health Organization. ( 2019) . *Health taxes: a primer*. World Health Organization. <https://apps.who.int/iris/handle/10665/329757>. License: CC BY-NC-SA 3.0 IGO

167. World Health Organization (2021). Health Taxes. [https://www.who.int/health-topics/health-taxes#tab=tab\\_1](https://www.who.int/health-topics/health-taxes#tab=tab_1)
168. World Health Organization. (2022). Policy response to alcohol consumption and tobacco use during the COVID-19 pandemic in the WHO South-East Asia Region: preparedness for future pandemic events. Snapshot series on alcohol control policies and practice. Brief 7, July 2022. World Health Organization.
169. World Population Review (2023) <https://worldpopulationreview.com/country-rankings/income-inequality-by-country>
170. World Wealth Report (2020) Capgemini Research Institute 2020.
171. Seltzer, David (2021). Using Tax Credits to Encourage Infrastructure Investment. Cornell Policy Review. 2021.
172. Stavins, Robert. (2019). “The Future of US Carbon-Pricing Policy.” NBER Working Paper 25912, National Bureau of Economic Research, Cambridge, MA
173. TADAT (2019). TADAT Field Guide 2019 Edition. TADAT Secretariat. Fiscal Affairs Department. International Monetary Fund
174. Torres, C. (2012), “Taxes and Investment in Skills”, OECD Taxation Working Papers, No. 13, OECD Publishing, Paris, <https://doi.org/10.1787/5k92sn0qv5mp-en>.
175. United Nations (2019). Financing for Sustainable Development Report 2019. Interagency Task Force on Financing for Development. <https://developmentfinance.un.org/sites/developmentfinance.un.org/files/FSDR2019.pdf>
176. van den Boogaard, V., Prichard, W., Beach, R. and Mohiuddin, F. (2022) ‘Enabling Tax Bargaining: Supporting More Meaningful Tax Transparency and Taxpayer Engagement in Ghana and Sierra Leone’, *Development Policy Review* 40.
177. World Bank (2013). World Development Report 2013: Jobs.
178. World Bank. *Trade Has Been a Powerful Driver of Economic Development and Poverty Reduction*. World Bank Brief. February 2023
179. World Health Organization (2021). Health Taxes. [https://www.who.int/health-topics/health-taxes#tvssab=tab\\_1](https://www.who.int/health-topics/health-taxes#tvssab=tab_1)
180. World Wealth Report 2020. Capgemini Research Institute 2020.
181. Wu, John (2015). Fueling Innovation : The Role of R&D in Economic Growth. Information Technology & Innovation Foundation. December 2015.