Equity Budgeting Tool

How to analyse equity in public budgeting and contribute to leaving no one behind

Published by
Deutsche Gesellschaft für internationale Zusammenarbeit (GIZ) GmbH
As a federally owned enterprise, GIZ supports the German Government in achieving its objectives in the field of international cooperation for sustainable development.

Published by:
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

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Design/layout:
SCHUMACHER – Brand + Interaction Design, Darmstadt

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Eschborn, September 2018
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Acronyms

BIA  Benefit incidence analysis
CoA  Chart of Accounts
CSO  Civil Society Organisation
EBT  Equity Budgeting Tool
GDP  Gross Domestic Product
GFG  Good Financial Governance
GIZ  Deutsche Gesellschaft für Internationale Zusammenarbeit, GmbH
IMF  International Monetary Fund
LNOB  Leave no one behind
LSMS  Living Standards Measurement Survey
MDGs  Millennium Development Goals
MoF  Ministry of Finance
OBS  Open Budget Survey
ODI  Overseas Development Institute
OECD  Organisation of Economic Cooperation and Development
OPM  Oxford Policy Management Ltd.
PFM  Public Financial Management
PEFA  Public Expenditure and Financial Accountability
SDGs  Sustainable Development Goals
ToRs  Terms of Reference
UNICEF  United Nations International Children's Emergency Fund
Equity issues are high on the international policy agenda through the principle of “Leaving no one behind” of the Agenda 2030 as well as Sustainable Development Goal 10 “Reduce inequality within and among countries”. The publication at hand aims at contributing to this endeavour by presenting the role Good Financial Governance and more specifically public budgeting can play in that regard: The aim of the Equity Budgeting Tool (EBT) is to provide practitioners with the necessary core understanding of equity, but more so offer a generic framework to analyse to what extent the reduction of inequality – or to put it in a positive way the support of equity – is reflected in the drafting and the execution of public budgets. The EBT is a selection of existing instruments and offers a checklist of questions. Based on such an analysis, policy discussions can be stimulated and the development of informed reform measures can be supported.
The past three decades have seen hundreds of millions of people lifted out of extreme poverty in the developing world, as several low-income countries have initiated a rapid and sustained process of economic growth. At the same time as reducing the global inequality between rich and poor countries (measured by GDP per capita), this sudden process of industrialisation has led to a surge in inequality within many economies as a result of the uneven distribution of growth. Increased competition from emerging economies has also contributed to putting downward pressure on low-skilled wages in industrialised countries, which has worsened inequality in several of these countries (Milanovic 2016).

These inequalities (especially those within countries) have contributed to increasing political instability in several parts of the world, as traditional power structures and income patterns have been upended. Rising inequality also makes it harder to achieve global development objectives. This is i.a. due to the fact that much of the economic growth that has occurred in the past decades, has bypassed the most vulnerable and marginalised groups that had the greatest need for support. According to a 2014 ODI report, “the people most likely to be left behind by development are those facing ‘intersecting inequalities’, or economic deficits intersecting with discrimination and exclusion on the grounds of identity and locational disadvantage” (Arauco et al. 2014).
Recognising that rising inequalities constitute a challenge to the sustainability of development and a barrier to poverty reduction, the Sustainable Development Goals (SDGs) have made inequality and discrimination a core cross-cutting topic by emphasizing the realization of the SDGs for all and its overarching principle of Leave no one behind (LNOB). Additionally, to emphasise the importance of this topic further, with SDG 10 there is a single Goal calling for the reduction of “inequality within and among countries”. Against this background, German Development Cooperation is active in different areas in order to support the reduction of inequality and contribute to LNOB and SDG 10 respectively. Whereas there are various projects in different relevant sectors around these issues, the focus of this publication is the role Good Financial Governance (GFG) and specifically public budgeting can play in that regard. While there are numerous entry points of the GFG system (e.g. tax policies are actively used in many countries to redistribute resources within society), it is the budget that constitutes the central instrument for setting policy priorities.

Therefore, the aim of this publication is to provide practitioners with the necessary core understanding of equity, but more so offer a generic framework to analyse to what extent the reduction of inequality – or to put it in a positive way the support to equity – is reflected in the drafting and the execution of public budgets. This framework or the Equity Budgeting Tool (EBT) is a selection of existing instruments and offers a checklist of questions. Based on such an analysis, policy discussions can be stimulated and the development of informed reform measures can be supported. German Development Cooperation has a long-standing experience of dealing with target-group specific budgeting, e.g. gender budgeting. Other organisations, such as UNICEF, have also developed issue-specific instruments to help analyse the impact of budgets on children, human rights or the inclusion of people with disabilities. The EBT does not aim to replace them and unavoidably overlap, particularly in the review of budget processes which is the focus of most guidelines. Instead, the EBT incorporates existing instruments and complements them having a clear focus on the analysis of budget outcomes.

After discussing basic questions around the application of the EBT (Chapter 3), a general introduction to equity and the link to Good Financial Governance is given (Chapter 4). The two following chapters present key analytical instruments as well as relevant questions to reviewing equity considerations through the budget process (Chapter 5 – budget outcomes, Chapter 6 – budget processes). Chapter 7 then concludes. The Annex provides useful further guidance for the application of the EBT (a template for data collection as well as means of data visualisation).

Before using the Equity Budgeting Tool, you should review the questions below as they will help you to properly get prepared before the analysis itself:

**Question 1:**
**What is the EBT?**

These EBT aims to provide practitioners with a) the necessary understanding of equity in general and b) a framework to analyse to what extent public budgeting is responsive to the needs of marginalised groups. This can then form the basis for the development of informed (policy) reforms. In order to do so, the EBT describes the general concept of equity and presents analytical instruments as well as relevant questions.

**Question 2:**
**When can the EBT be used?**

The EBT can be used to analyse to what extent equity considerations are reflected in the budget and answer questions related to how public spending impacts on various dimensions of equity in different contexts. It can be used to answer different types of questions related to equity in the budget:

- Broad conceptual questions that are not target-group or sector-specific: how far is equity in general reflected in budgeting?
- Target group-specific questions: how far are equity considerations of a specific group, e.g. migrant children, reflected in budgeting?
- Sector-specific questions: to what extent are equity considerations reflected in e.g. the health sector?
- Questions based on a combination of target-group and sector issues: how far are equity considerations for instance in the health sector regarding children with disabilities reflected in budgeting?

The EBT can be used regardless of budgeting approach (e.g. programme-budgeting) or level of government (e.g. sub-national).

**Question 3:**
**What is the focus of the analysis?**

Unless the EBT is used for a broad conceptual analysis which is not target-specific (cf. **Question 2**), the focus of the analysis in terms of target group and/or the relevant sector must be defined.

Who are the marginalised groups in the country in question and which one is to be focussed on? Examples of persons and groups that might be categorised as marginalised include e.g. women, persons with disabilities, orphans, child-headed households, female-headed households, widows, nomadic tribes, ethnic groups, minority religious groups, lower castes, migrants, indigenous people, lesbian/gay/bisexual/transgender/intersex. Who are marginalised groups will change from country to country as well as over time.

There are many potentially relevant sectors to be analysed – particularly those focusing on social areas such as health, education, social protection, etc. The analysis can be done by either looking at one sector or at all of them simultaneously.
In practice however, oftentimes there will be similar conclusions when looking at different sectors. This is due to spending outcomes being a combination of various sector budgets and the budget process basically being the same for all sectors. Therefore, it is recommended that the analysis on spending outcomes is done first for a key sector which has large implications on equity such as education or health.

Being clear in advance on the exact focus is key as it will guide the analysis. At the same time, it is also crucial to consider the availability of disaggregated data (cf. Question 7) regarding the chosen focus as the EBT will to a great extent depend on such data.

**Question 4:** Which stakeholders play a role when using the EBT?

Recognising that the budget is a political process, many stakeholders play a role and influence its outcome (including government, parliament, and civil society). From the government side, you need to include the Ministry of Finance (MoF) and the Ministry of Planning. Furthermore, depending on the sector to be analysed, social sector ministries such as Health, Education and
The table below shows the types of disaggregation by groups that can be done based on household survey data. It shows the public subsidies accruing to different relevant groups of interest. The table illustrates that the groups that used education services the least, such as people with disabilities, also tend to benefit the least from public expenditures on education. Women (girls) receive almost 30% less subsidy in total than men (boys). This is mostly due to differences at the secondary and tertiary level of education. On the other hand, those living in female-headed households tend to benefit more from public education expenditures than those living in male-headed households.

### Box 1: Example of disaggregated data – Public education subsidies (actual spending), by selected groups (Burkina Faso, 2014)

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<th>Criteria</th>
<th>Group</th>
<th>primprep</th>
<th>secondary</th>
<th>alphabet</th>
<th>technical</th>
<th>tertiary</th>
<th>bourse</th>
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<td>10578</td>
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<td>2967</td>
<td>874</td>
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<td>5143</td>
<td>5593</td>
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<td>476</td>
<td>0</td>
<td>30322</td>
<td>0</td>
<td>41772</td>
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Source: Enquete Multisectorielle Continue Burkina Faso (2014)
Social Protection can also be involved. As it might not be possible to include all stakeholders, you may want to determine those that are most relevant for the target group and/or the specific sector. Civil society plays a vital role as a watchdog in monitoring budget outcomes and representatives should be included when doing an EBT analysis. National Human Rights Institutions might be another stakeholder to include especially with regards to follow-up on the results. International institutions, development partners and think tanks may also provide relevant additional data to take into account in the analysis and also offer further kinds of support.

**Question 5:** Why should stakeholders be engaged and how?

Budgeting is a political process so efforts to influence it have to include both a technical and a political dimension as the distribution of resources is implicitly related to underlying power relations in political decision making. This is no different when it comes to equity issues. The EBT analysis might reveal potential areas where the most marginalised or certain sectors are not being prioritised as well as show weaknesses in the budget process that are not contributing to addressing it. This also implies that the analysis might reveal that certain groups receive a preferential access due to various reasons which might be politically sensitive (e.g. favouritism or historic divides). These biases should be anticipated and recognised before starting the analysis. To some extent, a proper consultation process can help to address such biases and help to initiate the necessary political debate. While some of the findings found using the EBT will not be entirely new, the fact that these findings are based on official data constitutes a leverage to address inequalities in a constructive dialogue with state officials. It can also be a powerful tool to capacitate civil society organisations (CSOs) as watchdogs over budgeting. It is against this background that the EBT can add value even when crucial statistical data is lacking (cf. **Question 7**). As with many assessment-type instruments, there is the risk of over-focusing on hard evidence like statistics as these are easier to measure and track. However, putting equity issues on the political agenda through an EBT analysis can also be the first step to improving equity in a society.

Consultation with relevant stakeholders may take many forms. A successful approach during the validation of the draft EBT in Burkina Faso was to have first bilateral exchanges with some key stakeholders followed by a multi-stakeholder consultation to present the preliminary findings and validate them. Such a participatory approach as well as its underlying aspects of political economy as already described above are likewise crucial when it comes to the follow-up of an EBT analysis: What does the analysis mean? What needs to be adjusted in order to increase equity considerations in budgeting? In order to answer such questions, stakeholder engagement is key. Such an engagement is more likely if the respective stakeholders have already been involved in the analysis itself. As an EBT analysis can be quite data-heavy and complex, the **Annex B** provides different means of data visualisation which can help to simplify information and engage relevant groups of society, e.g. during a follow-up workshop.
Question 6:
What expertise is needed to apply the EBT?

In addition to in-kind support by the involved stakeholders (e.g. commenting on documents, setting up meetings), external support through consultants is advisable for the more complex analytical tasks requiring regression analysis and econometric modelling. Some of the analytical instruments presented may be too complex for practitioners. However, it is important that these practitioners are aware of the types and uses of such analysis as it allows them to request support from external technical experts to carry out more sophisticated analysis which may be required to answer key policy questions. In particular, it will be important to involve national academic institutions to provide technical support to the process of analysing the budget and use/develop national capacities.

Furthermore, the EBT requires expertise in equity analysis as well as literacy on public finances in general and budgeting processes in particular. The main added value of the EBT with respect to other analytical instruments is the combination of the two. It is essential to analyse both the process and outcomes to get an adequate understanding of how and why the budget affects equity.

Question 7:
What sources for information are generally available?

The quality and availability of data is essential to allow for an evidence-based analysis of the impact of budget decisions on equity in general and/or different groups. In particular, it is important that the data can be disaggregated to identify statistically significant impact on marginalised groups that are sometimes under-represented or excluded altogether, e.g. of household surveys.

There are most likely always data limitations. However, attempting to answer the questions in the EBT can sensitize the involved stakeholders for equity issues. This can in turn lead to an increased understanding on the various aspects to consider and start a crucial policy discussion in society (cf. Question 5). Furthermore, such an exercise can identify areas that need strengthening, i.e. in terms of improving data availability for an evidence-based dialogue.

The main sources of information for the EBT analysis will come from:

- **Household budget survey**: National statistical offices sometimes publish this data although getting it in a workable format can be more challenging. Other potential sources include the Microdata Library of the World Bank\(^4\) or the International Household Survey Network\(^5\).
• **Annual budget data** (both allocation and actual expenditure): Again, this should come in excel or another workable format. Oftentimes, this information can be retrieved from the respective Ministry of Finance. Furthermore, the Open Budget Portal of the World Bank\(^6\) publishes such data.

• **Public Expenditure and Financial Accountability** (PEFA) assessments: The extent to which the budget will be effective in addressing equity issues depends largely on the general strengths and weaknesses of the budget process itself. Hence, standard public finance diagnostic tools such as PEFA can help to clarify at which stage(s) of the budget process inequities are created and/ or transmitted through to budget outcomes. A PEFA assessment provides a thorough, consistent and evidence-based analysis of the performance of a public finance system at a specific point in time. Many countries carry out PEFA assessments regularly and publish them\(^7\).

• **Open Budget Survey** (OBS): Another standard diagnostic tool around public finances is the OBS. It is the world’s only independent, comparative assessment of the three pillars of public budget accountability: transparency, oversight and public participation. It is done biennially and e.g. in 2017 it covered 115 countries. The results can be found online\(^8\).

• **National development plan**: Most countries have a medium-term document that sets out the Government’s priorities and plans for the coming years. These can often be found in the websites of the Ministry of Planning.

• **Sectoral strategies**: In addition to national development plans, most countries publish strategies for every sector, e.g. an Education Sector Plan.

Moreover, through **stakeholder engagement** (e.g. interviews, workshops) further – especially qualitative information – can be retrieved.

**Question 8:**

**Which resources are needed to carry out the analysis?**

As far as the resources on the side of the coordinating institution is concerned, sufficient time should be allocated for a proper preparation (e.g. what is the focus of the EBT analysis? Who do I need to engage and how? What kind of data is needed?).

The exact number of working days for external support – which is highly recommended – depends on the level of involvement of the stakeholders as well as data availability. During the validation of the EBT, 20-30 working days were used in total by a team of two consultants combining equity analysis and public finance expertise with strong support on the ground by local stakeholders during the in-country-mission. The total number of days may be much larger if e.g. the data is not available in a readily usable format.

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\(^7\) [www.pefa.org](http://www.pefa.org)

\(^8\) [https://www.internationalbudget.org/open-budget-survey/](https://www.internationalbudget.org/open-budget-survey/)
Question 9: What will the output of an EBT analysis look like?

The EBT proposes a basic set of questions related to the budget outcome and the underlying process. These questions – which can be adapted and tailored to the interest of the user – form the basis for drafting a technical report that analyses spending outcomes and then goes through each stage of the budget process. This can then pinpoint areas that need to be strengthened.

Besides an explanatory narrative for each question, the report can entail a traffic light system to represent the degree the answers to the different questions indicate a positive contribution to enhance equity or not:

- **Green**: budget processes and decisions take equity into consideration
- **Orange**: budget processes and decision partially take equity into consideration
- **Red**: There are no equity considerations in the budget or decision processes.

The questions on spending outcomes require quantitative analysis while the four sets of questions relating to the budget process are more of a qualitative nature and may require more nuanced responses (cf. Question 7).

As an orientation, a potential template for a report is available separately.

Question 10: Can the EBT be used in parts?

The experience during the validation has shown that both a review of spending outcomes and a review of the budget process is needed in order to draw conclusions on whether the budget is equitable. This is because what is ultimately meant with “equitable” is an answer to the question of whether the budget is delivering equitable outcomes. Therefore, any attempt to analyse whether the budget is equitable or not needs an analysis of budget outcomes. This, together with a review of the budget process, can explain the observed outcomes and pinpoint which stage or stages of the budget cycle can be strengthened to achieve more equitable results. Furthermore, it is the analysis of budget outcomes that provides the main added value of the EBT versus other existing instruments that already cover (in much more detail) the more procedural aspects relating to the budget cycle. In the review of existing related instruments, there is a clear focus on procedures and systems perhaps as these are easier to measure and track. Hence, it is strongly recommended to use the EBT holistically to maximise its value.
4.1 Why does Equity matter?

4.1.1 Intrinsic reasons

Fairness: Many, if not most, public policy discourses – from both left and right – are articulated around some notion of fairness and social justice. In almost all cases, this fairness requires the equalisation of some variable, such as income, opportunities, outcomes, etc. Although many people disagree on what constitutes fairness, most regard their own notion of fairness as an intrinsically valuable good that should be pursued for its own sake without requiring any further justification than its own good. Insofar as the variable that requires equalisation can be affected by public policies in general, and public expenditures in particular, these will have an impact on the fairness of policy outcomes. For instance, people may question whether a gas subsidy unfairly favours high-income car owners, or whether the introduction of school fees may diminish poor children’s chances of acquiring an education that will allow them to compete fairly in the labour market when they grow up.

Human rights: The international human rights framework provides the highest level of reference for all policy-making, as it defines standards and principles as well as limits that should not be exceeded. One fundamental principle guiding all human rights documents is the principle of equality and non-discrimination: All human beings are equally entitled to the rights defined therein and these rights are inalienable and indivisible. Insofar as these rights, such as the right to clean water or the right to education, can be affected by public expenditures, they should be taken into account when determining public policy orientations.

SDGs: Contrary to the Millennium Development Goals (MDGs), which did not explicitly refer to inequality, the SDGs are based on the pledge to leave no one behind. As agreed in the Agenda 2030, LNOB calls for a “just, equitable, tolerant, open and socially inclusive world in which the needs of the most vulnerable are met”. Along with policies aimed at aggregate outcomes, this calls for identifying and addressing the barriers faced by disadvantaged and marginalised groups in the access to resources, services, and opportunities. This principle is mainstreamed across all goals, which contain specific targets on inclusion of marginalised groups. It is also contained in Goal 10 which aims to “[R]educe inequality within and amongst countries”, including economic, legal, and political inequality as well as inequality in all dimensions of human wellbeing.

4.1.2 Instrumental reasons

Economic Growth: While it is difficult to make a general case for inequality reduction on the purely instrumental grounds of its effect on economic growth, it is becoming increasingly clear that excessive levels of income inequality can have detrimental effects on economic growth. In 2014, the International Monetary Fund (IMF) published an influential report warning that excessive inequality can make growth more volatile and create the unstable conditions for a sudden slowdown in GDP growth (Ostry et al., 2014).

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Political Stability: Part of the reason why excessive inequality can harm long-term growth prospects has to do with its effects on political economy. Very high levels of inequality can favour the emergence of populist movements of discontent and foster political instability. Stewart (2000) has shown that horizontal inequalities between ethnic groups or geographic regions are particularly harmful to political stability as they are more likely to produce violence around ethnic or regional identities.

Negative externalities: Beyond economic growth, economic inequality has shown to be strongly correlated with a large number of harmful social outcomes, such as crime, infant mortality, low life expectancy and even mental illness (for a full review of this literature, see Wilkinson and Pickett, 2010). Bourguignon (1998) and others have documented the growing importance of the social and economic burden imposed on society by rising violence, both in terms of the direct costs in lives and medical resources, and in terms of the opportunity costs of (both public and private) resources diverted from other activities towards preventing and fighting crime.

4.1.3 Constitutive reasons

Finally, looking at inequality can oftentimes provide a better understanding of some deeper underlying notion of social cohesion than about inequality itself. In this perspective, high or rising inequality is seen as a symptom of decreasing social cohesion, rather than being inherently bad in itself. This view also implies that reducing inequality and many of the social ills associated with inequality, requires deeper and longer-term interventions to repair social capital, integrate marginalised communities, encourage political participation, and promote constructive social dialogue through groups such as civil society organisations and trade-unions.

4.2 Basic Concepts

4.2.1 Equity and Inequalities

Equality describes the quality of things being the same, while equity denotes fairness. There are many different concepts of fairness, but all share the same notion of equality in some domain, such as rights, income, wealth, access, opportunity, wellbeing, outcomes, or effort. The pursuit of equity means tackling differences that are seen to be unfair or unjust.

It is important to emphasise that different societies will have different views of what constitutes fairness, and that there may also be many views within any given society. However, international agreements and conventions have established a legally-enshrined consensus on the rights that apply to everyone everywhere.

There may be a trade-off between equity and efficiency, where efficiency refers to the aggregate or average realisation of a certain objective, say reduction in infant mortality, and equity refers to the distribution of this objective across a given population. Reducing mortality amongst a specific group of children, such as children born prematurely, might be extremely expensive and thus draw resources away from the realisation of the broader objective of reducing overall infant mortality levels. Where such trade-off exist, they must be resolved through democratic dialogue within the framework of the rights defined by

international human rights instruments, and given adequate protection for minority groups. The International Covenant on Economic, Social and Cultural Rights\textsuperscript{12} requires states to “take steps...especially economic and technical, to the maximum of its available resources, with a view to achieving progressively the full realization of the rights”.

4.2.2 Aspects of Equity

Dimensions of equity

Even though oftentimes the focus is on inequality of income, it is important to take a broader look at equity in order to fully understand how budgeting relates to equitable outcomes. As shown below, equity can exist in many different forms\textsuperscript{13}:

- **Economic dimension** (for instance inequity in income or spending)
- **Human dimension** (e.g. inequities in education or health)
- **Political dimension** (inequities in empowerment, political participation etc.)
- **Sociocultural dimension** (inequities in dignity or social status)
- **Protective dimension** (inequities in insecurity or vulnerability)

In most cases, many different dimensions of inequality co-exist, overlap and are mutually reinforcing making it a complex issue. For instance, political inequities may lead to marginalised being underrepresented in the budget, which in turn affects equitable outcomes in health and education (human dimension).

The EBT focuses primarily on the economic and the human dimension. However, also here many interlinkages exist: By involving stakeholders in an EBT analysis like marginalised groups themselves, a positive contribution is made to political equity by giving them a voice. At the same time, this involvement and the process of an EBT analysis in general can have positive effects on their sociocultural status as well their level of protection (e.g. as society is being sensitised for the special needs of a certain group).

Causal mechanism of equity

For each dimension of equity, there are different levels of the causal mechanism that leads to the inequities:

- **Financing of services**: are people’s payments proportional to their means and ability to pay?
- **Access to or utilisation of services**: are all individuals able to access the services they need?
- **Outcomes**: do all individuals have the chance to achieve equitable outcomes, taking into account preconditions and the general framework such as discriminatory laws, policies and practices and national trends and driving causes of inequality?

\textsuperscript{12} [http://www.ohchr.org/EN/ProfessionalInterest/Pages/CESCR.aspx](http://www.ohchr.org/EN/ProfessionalInterest/Pages/CESCR.aspx)

\textsuperscript{13} GIZ (2015). “Reducing inequality – The role of good financial governance”
Ultimately, inequities in outcomes are of the highest relevance. Despite this, it is important to measure inequities at each stage of the budgeting process, in order to understand how the inequitable outcomes are generated and how they can be addressed. Nevertheless, a thorough equity analysis should place these issues in perspective to understand how the public spending is located in the broader social context and how it impacts on outcomes.

4.2.3 Public Finances in general and equity

Macro-economic policy can affect interest rates and inflation, which will affect prices, employment and economic growth. Similarly, in many countries, tax policies are actively used to redistribute resources within society. However, the EBT focusses on expenditure policy through the national budget.

Public spending affects inequality in both direct and indirect ways. The government may decide to abolish fees for usage of public services, or to invest in certain sectors. Depending on who uses the different services, these expenditures will benefit different groups of the population. For instance, spending on primary education will benefit families with young children. But in many cases, public spending is skewed towards services that are predominantly used by rich urban elites, such as tertiary education or tertiary health care. While the EBT mostly focuses on public spending, it is important to understand the broader macro-economic and policy context in which this spending is implemented, as it is but one of the instruments at the Government’s disposal to affect equity.

One way to look at the equity effects of public finances is to see how public revenue and spending alter income distribution. Public finances affect income inequality through the differential effects of both raising revenue (direct and indirect taxation and fees for services) and public expenditure for services, social transfers, and subsidies. Publicly funded services, minus any fees charged to users, are effectively in-kind transfers to those who use them. In turn, these income distribution effects have higher-level equity effects with respect to poverty and human development.

Levels of equity

Furthermore, it is important to distinguish between vertical and horizontal equity. Vertical equity refers to equity between individuals. Vertical equity is said to exist, for instance, when individuals pay proportionally to their ability to pay (e.g. rich people pay more taxes than poor people). When measuring vertical equity, typically inequalities in income or consumption are looked at. Horizontal equity refers to inequality between groups (e.g. ethnic groups or geographic areas). Horizontal equity is said to exit, for instance, when people receive the same care for the same needs, regardless of what part of the country they live in or regardless of which ethnic group they belong to.
**Box 2: The interplay between public finances and income inequality**

Income distribution can be measured at five levels, to reflect these additions to and deductions from income resulting from taxes and public expenditure:

- **market income** = income before all taxes, transfers and subsidies;
- **net market income** = market income minus personal income taxes and social security contributions;
- **disposable income** = net market income plus direct social transfers to households;
- **post-fiscal income** = disposable income plus indirect subsidies (such as price subsidies) and minus indirect taxes;
- **final income** = post-fiscal income plus the value of in-kind subsidies for education, health and other public services, net of any co-payments (fees) paid for the use of these services.

The chart below shows how income changes when these different taxes, fees, transfers, subsidies and services are taken into account. Since their incidence varies, they alter the income distribution, as measured by the Gini coefficient.

![Diagram showing the interplay between public finances and income inequality](chart.png)

Source: Derived from the conceptual framework developed by the Commitment to Equity project at Tulane University in Lustig et al., 2013. Used in UNICEF and OPM (2015) Module 11.
In this Chapter, we will review some tools and techniques that can be used to assess the equity impact of public expenditures and will help to answer the questions of the EBT Matrix on budget outcomes below. Besides a narrative, the answer can be visualized through a traffic light system in the right column whereas the colours (green/yellow/red) indicate the extent to which equity is taken into consideration.

In principle, an outcome analysis can be carried out on the entire budget. However, in practice this can become very cumbersome due to the amount of data required. Therefore, it is recommended that the type of analysis and forecasting described here be carried out on specific sectors or subsectors (e.g. the education sector) or be used to answer specific policy questions (e.g. does the gas subsidy benefit urban households more than rural households?). The questions listed below in the Matrix can help to identify specific sectors or questions that would benefit from further quantitative analysis. This can be due to procedural issues about the way that the possible impact on marginalised groups has been considered in the budget preparation process or because the sectors are of particular importance for groups of special interest (e.g. children or persons with disabilities).

### EBT Matrix for budget outcomes

<table>
<thead>
<tr>
<th>Key Questions</th>
<th>Sources of information</th>
<th>Traffic light</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do poor and marginalised groups use the different public services to the same extent as other groups?</td>
<td>Household survey data</td>
<td></td>
</tr>
<tr>
<td>Are there financial, cultural, physical or other barriers that prevent those groups from accessing the services?</td>
<td>Household surveys, qualitative research</td>
<td></td>
</tr>
<tr>
<td>Is the distribution of funds proportional to need and/or cost? E.g. are more resources directed to poorer areas, and remote areas where the unit cost of provision of public services is higher?</td>
<td>Budget execution data</td>
<td></td>
</tr>
<tr>
<td>Do the poorest and most marginalised groups currently receive at least as much public expenditures as other groups?</td>
<td>Household survey data and budget execution data</td>
<td></td>
</tr>
<tr>
<td>Would those groups gain or lose if public expenditures were reallocated to different services and/or different parts of the country?</td>
<td>Household survey data and budget execution data</td>
<td></td>
</tr>
<tr>
<td>Do public expenditures contribute to reducing monetary inequality?</td>
<td>Household survey data and budget execution data</td>
<td></td>
</tr>
<tr>
<td>Are there more cost-effective ways of achieving the same outcomes?</td>
<td>Household survey data and budget execution data</td>
<td></td>
</tr>
</tbody>
</table>

By monetary inequality, we understand inequalities in financial resources available to the household for consumption, via income or transfers.
5.1 Measuring Inequality

In this sub-section, we present different indices and graphs that can be used to measure inequality within a society. Most commonly, the measures are used to measure inequality in income or consumption. But in principle, it should be possible to use most of these indices with any data that is continuous. Concentration curves are often used to show inequalities in well-being outcomes, such as disease burden. Other visualization tools are also presented in the Annex. In general, such indices are constructed using publically available household survey data such as Living Standard Measurement Surveys (LSMS) or similar household budget surveys. Good sources to find such surveys include the Microdata Library of the World Bank\(^\text{15}\) or the International Household Survey Network\(^\text{16}\). It should be noted that such data always underestimates inequality because rich households are either not represented in these surveys or do not report e.g. their full income/wealth. There are currently various attempts going on to close this data gap.

Such measures of inequality can also be used e.g. at the policy planning stage (cf. Chapter 6/Stage 1) as part of the diagnostic tools aimed at helping policy-makers formulate high-level policy objectives on inequality. Inequality measures are also used in ex-post analysis to identify trends in income distribution, and may therefore form an important part of the analysis of budget outcomes. Below are some of the main indices that are used in this type of analysis:

- **The Gini coefficient** (or Gini index) is the most common measure of the distribution of income in a society. The value ranges from 0 (expressing perfect equality, where everyone has the same income) to 1 (expressing maximum inequality, where a single person has all the income). The economist Thomas Piketty (2013) has cautioned against relying too heavily on a single index that necessarily reduces to a single number the entire distribution of income or wealth across a whole society. Instead, he suggests using a range of different measures and looking at the relation between different parts of the income distribution independently: The difference between the bottom and the middle of the hierarchy, the middle and the top, or the top and the very top, may all be individually relevant and subject to different processes and dynamics.

- **Quantile share/ratios**: compares two parts of the distribution, generally rich vs. poor. This allows to focus on the part of the distribution that is considered to be more problematic or most relevant for policy purposes. If it is considered, for instance, that much of the burden of reducing poverty should fall on the richest households within society, the gap between the poorest and the richest households should be monitored.

- **Palma Index**: An often used quantile ratio is the so-called Palma index, which compares the income share of the richest 10% of the population vs. the poorest 40%. The attraction of the Palma index is that it builds on a political economy theory of how redistribution policies work. Palma noticed


\(^{16}\) [http://www.ihsn.org/](http://www.ihsn.org/)
that the income share of the upper middle class often stays constant in periods of sudden change in income inequality, and that changes in the Gini-coefficient often are driven by redistribution between the top 10% and the bottom 40% of the distribution. He explained this statistical regularity as resulting from the fact that the middle class tends to side with either of these two groups, thus tipping the electoral balance in favour of one or the other.

- **Theil/Hoover Index**: also known as entropy indices. The main advantage of this index is that, unlike the Gini-coefficient, it is additively decomposable, meaning, that the national inequality rate can be expressed as the weighted sum of the inequality rates in different regions of the country. This is particularly useful to understand how income is distributed across different population subgroups and which groups are driving changes in inequality. While the Gini-coefficient is especially sensitive to changes in middle of the income distribution, entropy indices tend to be more sensitive to what happens at the tails of the distribution.

- **Atkinson index**: This is an extension of the Theil index. Its main advantage is that it contains an ‘inequality aversion’ parameter that can be adjusted by the research to emphasise different parts of the income distribution. If it is believed that inequality e.g. amongst the poor is more problematic than inequality amongst rich households, a higher parameter can be chosen that will make the index more sensitive to changes at the bottom of the income distribution.

- **Polarisation indices**: Polarization indices are a special group of inequality indices that focus on inequalities between population groups, such as geographic regions or ethnic groups. As such, these indices are good for studying horizontal inequalities between groups. While many different polarisation indices exist (e.g. Foster Wolfson), they all have in common that their value increases (i.e. polarisation worsens) when the distance between groups increases, and when inequality within a given group shrinks. In other words, polarization indices tend to increase when the income distribution clumps into distinct and internally homogenous clusters.

### 5.2 Measuring the incidence of public spending

**Benefit Incidence Analysis**

Benefit Incidence Analysis (BIA) measures the distribution of the benefit of a public service, subsidy or social transfer across the population. This depends both on the distribution of expenditure across different types of services (including within sectors), subsidies or transfers, and on the distribution of beneficiaries. BIA is mainly applied to measure the equity of public expenditure across income or expenditure quintiles (or deciles). However, it can also be used to measure distribution against other dimensions such as gender, geographical areas, and ethnic groups.

BIA can be carried out for the selected target group and applied to specific services, transfers or subsidies, or to a whole sector. In the latter case, it is still necessary to identify its different components. In education, for example, these might be primary, secondary and tertiary education. Or there might be other components such as technical and vocational education or adult education. In social protection, the focus might be on different programmes such as child
Box 3: Steps for calculating Benefit Incidence Analysis

The benefit incidence of expenditure on these different services (or transfers or subsidies) can be calculated as follows:

- **Rank the population into sub-groups.**
  These are usually quintiles or deciles of the income or consumption expenditure distribution, although it is also possible to carry out BIA for other sub-groups, such as males and females (e.g. for education expenditure BIA), and those living in different geographical areas, such as urban and rural areas. The data is sourced from national household surveys. Some BIA is carried out using households as the unit of beneficiary, rather than individuals, but it is generally regarded as preferable to use individuals. This can affect the results of BIA, for example when poorer households have more members than richer households.

- **Estimate the utilization** or coverage of each service (or transfer or subsidy), by each population sub-group. This data also usually comes from household surveys.

- **Calculate the unit cost** of each service (or transfer or subsidy) to be analysed. As this is BIA of public expenditure, the unit costs should be net of any cost recovery fees, out of pocket expenses by users of the service, or user fees. The public cost data should be comprehensive, including those borne by all levels of government, and should preferably include both recurrent and capital expenditure. The latter should be amortized to take into account the fact that benefits are spread over several years.

- **Calculate the public expenditure** on each service (or transfer or subsidy) by multiplying the unit cost by the number of beneficiaries in each population sub-group. This shows how the benefit of the expenditure is distributed across the different sub-groups of the population.

- **Aggregate the expenditure** on each service (or transfer or subsidy) for each population sub-group, to calculate the benefit incidence of public expenditure in the sector as a whole.

For each service (or transfer or subsidy), or the sector as a whole, a benefit incidence ratio, which expresses the share of the expenditure (benefit) obtained by each population sub-group divided by the share of that sub-group in the total population. For example, in BIA using population quintiles, this ratio expresses the share of a benefit obtained by each quintile divided by the share of the quintile in the total population. It is then easy to see whether the poorer quintiles are receiving an equal, smaller or larger proportion of the benefit of a service, transfer or subsidy.
grant, old age pension, and disability pension. The health sector might be disaggregated into national hospitals, district hospitals, and local health centres or by different types of health programmes.

As a final step, it is useful to triangulate the results with other available information to see if any discrepancies can be explained by objective factors. For instance, it may be that poorer populations live in remote areas where the cost of provision of public services are higher or that higher investments are needed in certain groups to compensate for poor health or high illiteracy rates.

Kakwani Index

One useful method for analysing whether public expenditures worsen (i.e. are relatively regressive) or improve (relatively progressive) the original income distribution, is by using a Kakwani progressivity index. The Kakwani index effectively measures the cumulative gap between the concentration curve for the variable of interest and the Lorenz curve for gross household income (pre-transfer). In the case of a transfer, a positive Kakwani index indicates that the transfer is progressive (i.e. reduces inequality).

It is important to distinguish between absolutely progressive expenditure, and one that is relatively progressive. In practice, we can have three possibilities:
• Public expenditure is **absolutely progressive** when its concentration coefficient (index) is negative, meaning that the concentration curve lies above the 45° line, representing perfect equality.

• Public expenditure is **relatively progressive** when its concentration coefficient (index) is positive but less than the Gini coefficient, and so reduces overall inequality even though the better-off benefit more. Put another way, the value of the benefit relative to per capita expenditure is higher for poorer than richer households.

• Public expenditure is both **absolutely and relatively regressive** when the concentration coefficient/index is not only positive, but higher than the Gini coefficient, meaning that the concentration curve lies further away from the 45° line than the Lorenz curve.

A relatively progressive expenditure is any subsidy that does not worsen income inequality compared to what it was before the subsidy was received. For instance, if the top quintile is twice as rich as the bottom quintile, and they receive twice as much public subsidy as the poor, the expenditure is distribution neutral. This is because the relative position of the rich and poor hasn’t changed after the subsidy was received (the rich are still twice as rich as the poor). Even if the rich received 50% more subsidy than the poor, the subsidy is progressive in the sense that the relative gap between the rich and poor was larger before the subsidy was received.

The Kakwani index can also be represented graphically using progressivity (see Annex B).

### 5.3 Forecasting and comparing policy options

Once the incidence of public expenditures has been estimated through the process described in Section 4.2., it is possible to use this information to make forward-looking prediction of the possible impact of future policy decisions. This can also be used to compare different policy options in order to estimate what the possible impact on income inequality or on the wellbeing of a particular group might be. This information can then contribute to informed decisions regarding policy development and planning (cf. Chapter 6/Stage 1).

Example: The BIA has shown that rich urban households are significantly more likely to attend secondary school than poor rural households. This may be due e.g. to financial barriers to access, such as school fees or physical barriers like distance to the nearest school or cultural barriers as education is less highly valued in certain areas. Whatever the reason – if the Government plans to double allocations to secondary schools, this is likely to benefit households with children of secondary school age who are likely to send their children to school.

The type of forecasting used to estimate the likely distributional impact of future policy decisions is called micro-simulations and is carried out using household survey data in much the same way that the BIA is carried out. The only difference is that the budget value that is plugged into the model in the forward-looking case is not a value obtained from past budget data, but are based on forward-looking estimations of likely public spending on different types of public services. In its simplest form, the micro-simulations simply...
use the parameters from the BIA and estimate the effect of changes in those parameters, assuming that everything else stays the same. This means that it is estimated that utilisation patterns will remain the same in the future as they have been in the past. This may not always be true. Out-of-school children may be more interested in attending school if the quality of teaching improves as a result of public investments. Or the Government’s investments may be targeted at lowering the barriers to access faced by poor households such as school fees, in which case a change in utilisation patterns should be expected. In principle, such behavioural changes can also be incorporated in the models. However, the more sophisticated the model is, the more assumptions will have to be made, and the more the results will be contingent on accepting the specific set of assumptions that have been made.
In the previous Chapter, the focus was on budget outcomes. This Chapter will focus on the budget process. Looking systematically at the budget process can help to identify at which stage of the process inequity arises. In some cases, inequity might be enhanced as early as the planning stage, if priority is e.g. given to services such as tertiary education which tend to be used by urban and richer segments of the populations. In other cases, inequity may arise at the execution stage if absorption capacity is low in certain regions or if actual budget allocations do not comply with approved amounts.

The budget process can be broken down into four stages:

**Figure 2: The budget cycle**

Stage 4
Monitoring and evaluating the use of funds and measurement of results

Stage 3
Implementing expenditure according to the budget

Stage 2
Project revenue and allocating expenditure in the annual budget law

Stage 1
Review existing policies and plans, update them and design new ones where necessary

For each stage, this Chapter describes the basics of what happens and how as well as who is involved. Furthermore, key questions regarding equity and possible data sources are presented.

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17 This Chapter builds on previous materials developed by OPM with UNICEF (UNICEF and OPM, 2015a and 2015b, Pijuan and Allan, 2016) and the GIZ Good Financial Governance in Sector Ministries (GIZ, 2013).
Stage 1: Policy development and planning

The budget process starts with a review of existing policies and plans, updating them, and developing new ones where necessary. At this stage, key policy and planning documents need to be reviewed such as the national development plan, the medium-term sector strategies or national household surveys.

Taking the national policy priorities as the starting point, each Ministry agrees its goals and objectives and sector experts define programmatic interventions that can guide budget preparation. Often there are 3 to 5 years sector plans which are updated regularly, for example an “Education Sector Plan”. From an equity perspective, it is crucial to analyse to what extent the specific target group of the EBT analysis is featured in the national policy and planning documents, as well as in sector strategies. Particular attention should be paid to those sectors that are critical for achieving equitable outcomes such as health or education and use the results of the analysis of budget outcomes to understand where inequalities exist.

Further relevant sources of information at this stage are analyses dealing with the situation of marginalised groups in the given country (e.g. beneficiary analysis, Public Expenditure Review, Public Expenditure Tracking Surveys). CSOs and research institutions can have an important role at this stage. They can provide evidence on policy outcomes or give beneficiaries of these policies a voice (cf. Chapter 5).

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Policy development and planning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What</strong></td>
<td>Review existing policies and plans, update them and design new ones where necessary</td>
</tr>
</tbody>
</table>
| **Who** | • Ministry of Finance  
• Ministry of Planning  
• Line ministries  
• CSOs and academic institutions |
| **How** | Develop plans linking policy and budget making use of previous years’ analysis where available. This can include existing analysis of public expenditure such as Public Expenditure Review, Public Expenditure Tracking Surveys, budget analysis, etc. as well as annual reports to Parliament, analysis of beneficiaries or sector strategies. |
| **Key documents and data** | National development plan  
Medium-term sector strategies or expenditure frameworks  
National household survey  
Open Budget Survey – Public Participation score |
As in every stage, it should be ensured that marginalised groups themselves or CSOs representing them are involved in this process as it is through these opportunities that such groups can be heard.

**EBT Matrix on budget process – Policy development and planning**

<table>
<thead>
<tr>
<th>Key Questions from an equity perspective</th>
<th>Sources of information</th>
<th>Traffic light</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is there a beneficiary analysis? Are there defined marginalised groups?</td>
<td>Research organisations</td>
<td>🟢🟢🟢</td>
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</tr>
<tr>
<td>Is the necessary (disaggregated) data available to inform evidence-based policy and planning?</td>
<td>National statistics office; national household survey; research organisations</td>
<td>🟢🟢🟢</td>
</tr>
<tr>
<td>Are CSOs representing the rights of the most marginalised involved in this stage of the process? Have the most marginalised been involved in the process?</td>
<td>Open Budget Survey Public Participation score; strategic planning guidelines; strategic planning sessions minutes</td>
<td>🟢🟢🟢</td>
</tr>
</tbody>
</table>
Stage 2: Budget preparation and approval

Once all sector goals have been agreed, the Government is ready to formulate the budget. This is when countries make revenue and expenditure projections as a guidance for determining ministerial budgets. These are finalised following executive (i.e. cabinet) and legislative (i.e. parliamentary) approval.

Based on macroeconomic projections, the Ministry of Finance sets the aggregate expenditure ceiling, i.e. the total amount of resources available for the entire government. This overall ceiling is then divided between line ministries in cabinet consultations. The Ministry of Finance then distributes the guidelines to prepare the budget, often known as the “budget circular”. Line ministries then prepare and submit their budget proposals to the Ministry of Finance and bilateral discussions are held before a final agreement is made. Individual budgets are then consolidated into the budget law which is submitted to Parliament for scrutiny. Once Parliament gives its consent, the budget is adopted.

The key documents in this stage are the budget call circular as well as the annual budget itself. Where available the citizens’ budget can also provide useful information. Therefore, it is important to scrutinize if there is information on equity considerations in these documents. For example, if budget proposals specify target groups or if performance indicators are specified with a view to reduce potential inequities as found in the analysis of budget outcomes.

The quality of project appraisal and selection before including them in the budget process is essential to understand to what extent equity considerations can be taken into account. If these indicators are weak, it means projects are unlikely to be appraised and selected sufficiently rigorously to know if they adequately cater for marginalised groups.

### Stage 2 Budget preparation and approval

| What | Annual budget law  
Medium-term expenditure framework and budget guidelines |
| Who |  
• Ministry of Finance  
• Line ministries  
• Parliament |
| How |  
• Calculate overall resource availability and define aggregate expenditure ceiling  
• Define line ministries’ expenditure ceilings  
• Prepare and distribute budget guidelines  
• Line ministries submit draft estimates to Ministry of Finance  
• Ministry of Finance reviews and discusses  
• Finalise ministries’ budgets and consolidate  
• Submission to Parliament and approval |
### Key Documents and Data
- Line ministries budget estimates and supporting documents
- Budget call circular
- Citizens’ budget
- Programmes or Project Appraisal Guidelines
- Open Budget Survey – Transparency score
- PEFA indicator 11.1: Economic analysis of investment proposals
- PEFA indicator 11.2: Investment project selection

### EBT Matrix on Budget Process – Budget Preparation and Approval

<table>
<thead>
<tr>
<th>Key Questions from an Equity Perspective</th>
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<th>Traffic Light</th>
</tr>
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<td>Is equity clearly stated as an objective in budget formulation guidelines (i.e., budget call circulars)?</td>
<td>Budget call circular and accompanying sheets</td>
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</tr>
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<td>Are line ministries’ budgets prepared in line with sector objectives and performance indicators?</td>
<td>Line ministries budget estimates and supporting documents</td>
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</tr>
<tr>
<td>Is there information on equity considerations in the budget law and supporting documents presented to Parliament?</td>
<td>Annual budget law and supporting documents</td>
<td>🟢🟢🟢</td>
</tr>
<tr>
<td>Is the budget documentation accessible to citizens?</td>
<td>MoF website; Citizens’ budget; Open Budget Survey – Transparency score</td>
<td>🟢🟢🟢</td>
</tr>
<tr>
<td>Are programmes or projects systematically appraised with equity considerations? How are they selected for inclusion in the budget?</td>
<td>Programmes or project appraisal guidelines; PEFA Indicators 11.1 and 11.2</td>
<td>🟢🟢🟢</td>
</tr>
</tbody>
</table>
Stage 3: Budget execution

This is the stage where planned activities are implemented. During this stage, revenues are collected, funds are released by the Ministry of Finance to line ministries. Line ministries then allocate funds to spending units who can then procure goods and services and initiate spending. Personnel are deployed, activities are undertaken, payments are made, and transactions recorded in the accounting system. Public procurement systems play an essential role and can incorporate equity considerations to ensure equal opportunities for disadvantaged service providers.

From an equity perspective, this is the most crucial stage. Ultimately, the impact on equity depends on what is actually being spent. Therefore, regardless of what went into the national policies or plans, or even what went into the budget, if the budget is not executed as approved by Parliament then it will not deliver equitable outcomes.

In this stage, it is essential to use budget data. In this sense, the degree to which budget disbursements are automated through the Government Financial Management Information system and the degree to which data is disaggregated play a key role. If budget execution data is not recorded on the same basis as the budget is prepared or without some level of disaggregation, it will not be possible to assess how the budget was executed and specifically, if it was executed as planned.

<table>
<thead>
<tr>
<th>What</th>
<th>Resources are used to implement the policies via the budget</th>
</tr>
</thead>
</table>
| Who  | • Ministry of Finance  
      • Line ministries  
      • Service delivery units |
| How  | • Ministry of Finance releases funds in line with budget approved by parliament  
      • Line ministries allocate funds to spending units  
      • Procurement of goods and services  
      • Payments are made for goods and services procured  
      • Transactions are recorded in the accounting system  
      • In-year management of programmes |
| Key documents and data | • Budget implementation reports  
                          • Budget data on actual expenditure (e.g. BOOST database)  
                          • In-year revisions and supplementary budgets  
                          • PEFA Indicator 2: Expenditure composition outturn  
                          • PEFA Indicator 6.1: Expenditure outside financial reports  
                          • PEFA Indicator 21.4: Significance of in-year budget adjustments |
EBT Matrix on budget process – Budget preparation and approval

<table>
<thead>
<tr>
<th>Question</th>
<th>Sources of information</th>
<th>Traffic light</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is budget executed in line with the budget approved by parliament?</td>
<td>BOOST database, PEFA indicator P2, IMF reports</td>
<td></td>
</tr>
<tr>
<td>Are budget disbursements and execution recorded in the Government Financial Management Information system? What is their level of disaggregation?</td>
<td>PEFA indicator 6.1</td>
<td></td>
</tr>
<tr>
<td>Do in-year budget virements or supplementary budgets take equity into account? E.g. Do they protect expenditures to disadvantaged groups?</td>
<td>BOOST database, PEFA 21.4; In-year budget revisions and supplementary budgets</td>
<td></td>
</tr>
<tr>
<td>Does the procurement system take equity considerations into account? Does the procurement of goods and services include provisions to ensure equal opportunities for disadvantaged service providers? How?</td>
<td>Public procurement guidelines; regulations and policy related to positive discrimination</td>
<td></td>
</tr>
<tr>
<td>Are CSOs representing the rights of the most marginalised involved in this stage of the process?</td>
<td>Self-assessment, key informant interviews</td>
<td></td>
</tr>
</tbody>
</table>
Stage 4: Monitoring and evaluation

Monitoring and evaluating expenditures informs whether the budget is being implemented as agreed. It provides management information and financial control. Evaluation can assess equity issues resulting from budget allocations and execution which feeds into future plans and restarts the budget cycle.

This is again a crucial stage and very much linked to the analysis of spending outcomes (Chapter 5). If monitoring and evaluation is weak, it means the analysis of spending outcomes is not happening. Consequently, there is insufficient information to assess the extent to which the budget is equitable. At this stage, it is important to analyse in how far the budget is monitored (or can be monitored) to ensure that those programmes that are particularly important for the selected marginalised groups receive the funding that was originally allocated through the budget. In other words: it needs to be assessed where the money is being spent and for whom.

<table>
<thead>
<tr>
<th>Stage 4</th>
<th>Monitoring and evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>What</td>
<td>Monitoring and evaluating financial and non-financial performance</td>
</tr>
</tbody>
</table>
| Who     | • Ministry of Finance  
          • Accountant general  
          • Line ministries  
          • CSOs and academic institutions  
          • Public accounts committee  
          • Supreme Audit Institutions  |
| How     | • Produce monthly, quarterly and annual reports  
          • Identify overspending, under-spending and savings, as well as detect irregularities involving misuse of public funds  
          • Provide reliable data on programme results  
          • Evaluate the impact of expenditure  |
| Key documents and data | • Open Budget Survey – Supreme Audit score  
                           • Open Budget Survey – Legislature score  
                           • Open Budget Survey – Transparency score  
                           • PEFA indicator 8.2: Performance achieved for service delivery  
                           • PEFA indicator 8.4: Performance evaluation for service delivery  
                           • PEFA indicator 31: Legislative scrutiny of budget reports  
                           • PEFA indicator 2: Aggregate expenditure outturn  
                           • PEFA indicator 16.4: Consistency of budgets with previous years’ estimates |
## EBT Matrix on budget process — Monitoring and evaluation

<table>
<thead>
<tr>
<th>Key Questions</th>
<th>Sources of information</th>
<th>Traffic light</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do financial and non-financial budget monitoring reports include equity measures? Are there equity budget performance indicators?</td>
<td>Open Budget Survey, PEFA indicator 8.2</td>
<td>☢☢</td>
</tr>
<tr>
<td>Are there external evaluations and analysis on budget spending? Do they include equity indicators?</td>
<td>Open Budget Survey – Supreme Audit score, PEFA indicator 8.4, PEFA indicator 31</td>
<td>☢</td>
</tr>
<tr>
<td>How do monitoring and evaluation reports inform future budget decisions? Are programmes cancelled or amended based on the results they have on disadvantaged groups?</td>
<td>PEFA indicator 2, PEFA indicator 16.4</td>
<td>☢☢</td>
</tr>
<tr>
<td>Are CSOs representing the rights of the most marginalised involved in this stage of the process?</td>
<td>Open Budget Survey – score on legislative budget oversight in execution and audit</td>
<td>☢☢</td>
</tr>
<tr>
<td>How is civil society involved in promoting budget transparency and performance?</td>
<td>Open Budget Survey – Transparency score, accountability mechanisms, legislation on access to information</td>
<td>☢☢</td>
</tr>
</tbody>
</table>
The EBT provides a general tool to analyse the impact of budgeting decisions on equity outcomes and to help understand at which stage of the budgeting process those inequalities are most likely generated. As a possible outcome, EBT may show that during budget preparation certain marginalised groups and/or sectors that are particularly relevant for reducing inequalities receive proportionality less allocation than others or that the budget executed is very different than the budget approved which was more sensitive to equity issues. Those findings can potentially imply, for instance:

- Lacking political sensitivity for equity
- Misallocation across sectors
- Misallocation across regions
- Poor participation and insufficient accountability for allocation

Reasons for that can be manifold, e.g. in terms of misallocation powerful ministries may be able to defend their (requested) allocation, while (often pro-poor) spending that was the responsibility of less powerful ministries or departments may be prone to cuts. An EBT analysis can help to identify these issues and ‘make them visible’ – a first step to develop informed reform measures (cf. Box 4 below).

In order to ensure this added value, the following recommendations should be taken into consideration when planning to undergo an EBT analysis:

- **Quality of the consultative process decisive:** Make sure that all relevant points of view have been adequately taken into account, particularly the views of marginalised groups that have the greatest difficulty in getting heard. Include CSOs and national human rights institutions in the process and divulgate the outcome of the EBT analysis.

- **Quality and availability of data fundamental:** To allow for an evidence-based EBT analysis of the impact of budgeting on different groups, a good level of data is crucial. In particular, it is important that the data can be disaggregated to identify statistically significant impact on marginalised groups that are under-represented or left out altogether of household surveys (e.g. children with disabilities, nomadic groups, unregistered migrants). Sometimes disaggregated data is available, but is not used in policy planning and development.

- **Involve national academic institutions:** The institutions can provide technical support to the process of analysing the budget in order to develop national capacities to hold government accountable for the impact of budgetary decisions.

- **Embed the EBT analysis in a broader context of intervention to enhance its usefulness:** An EBT analysis as such is an endeavour of a few months. However, it is important to embed it into a broader context. Otherwise, it is quite likely that no real reform process will be kicked off based on an EBT analysis. Ensuring broad participation already during the analysis phase can help later on that the findings are then also being used in one way or another. Examples for such a broader context include policy advice to ministries or capacity building on equity issues and/or strengthening civil society to hold the government accountable.
• Conservative forecasting of revenues to minimise the need for budget cuts during the year

• Stronger expenditure control with prompt within-year reporting, sanctions for overspending and effective oversight

• Improve transparency and empower civil society and citizens to participate in budgeting processes

  - Engage with relevant Ministries to promote the publication and dissemination of budgets and expenditure reports, including in-year reports, and appropriate policies and systems to enable citizen access.

  - Promotion of public dialogue on sectoral budgets and expenditure, through mechanisms such as ‘town hall meetings’ and radio call-in shows (led by government stakeholders).

  - Support dialogue on civil society open budget initiatives by bringing together government and civil society stakeholders, and sharing experiences and methods used in other countries. Facilitate civil society dialogue on the opportunities, challenges and potential way forward.

  - Production of ‘accessible briefs’ which summarise and analyse key public financing information, using appropriate formats, languages and jargon free explanation, as well as simple diagrams and infographics targeted to the citizen audience.


Annex A: Template EBT Matrix for data collection

The following pages constitute the combined EBT Matrices which can be used during an EBT analysis to collect and document information by using the middle column for this (“Analysis”). The column with the traffic light can then be used to indicate the tendency of the respective answer (word format available separately). Furthermore, the Matrices form an important part of the EBT Report (template available separately).

Table 1: EBT Matrix on budget outcomes

<table>
<thead>
<tr>
<th>Key Questions</th>
<th>Sources of information/Analysis</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Do poor and marginalised groups use the different public services to the same extent as other groups?</td>
<td>Household survey data</td>
<td></td>
</tr>
<tr>
<td>Are there financial, cultural, physical or other barriers that prevent those groups from accessing the services?</td>
<td>Household surveys, qualitative research</td>
<td></td>
</tr>
<tr>
<td>Is the distribution of funds proportional to need and/or cost? E.g. are more resources directed to poorer areas, and remote areas where the unit cost of provision of public services is higher?</td>
<td>Budget execution data</td>
<td></td>
</tr>
<tr>
<td>Do the poorest and most marginalised groups currently receive at least as much public expenditures as other groups?</td>
<td>Household survey data and budget execution data</td>
<td></td>
</tr>
<tr>
<td>Would those groups gain or lose if public expenditures were reallocated to different services and/or different parts of the country?</td>
<td>Household survey data and budget execution data</td>
<td></td>
</tr>
<tr>
<td>Do public expenditures contribute to reducing monetary inequality?</td>
<td>Household survey data and budget execution data</td>
<td></td>
</tr>
<tr>
<td>Are there more cost-effective ways of achieving the same outcomes?</td>
<td>Household survey data and budget execution data</td>
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### Table 2: EBT Matrix on budget process

#### Stage 1: Policy development and planning

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<td>Are CSOs representing the rights of the most marginalised involved in this stage of the process? Have the most marginalised been involved in the process?</td>
<td>Open Budget Survey – Public Participation score; strategic planning guidelines; strategic planning sessions minutes</td>
<td>⬤ ⬤ ⬤</td>
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</table>
### Stage 2: Budget formulation and approval

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<td>🟢🟢🟢</td>
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<td>Are programmes or projects systematically appraised with equity considerations? How are they selected for inclusion in the budget?</td>
<td>Programmes or project appraisal guidelines, PE-FA Indicators 11.1 and 11.2</td>
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</table>
# Stage 3: Budget execution

<table>
<thead>
<tr>
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<td>Is budget executed in line with the budget approved by parliament?</td>
<td>BOOST database; PEFA indicator P2, IMF reports</td>
<td>☢️ ☢️ ☢️</td>
</tr>
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<td>PEFA indicator 6.1</td>
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### Stage 4: Monitoring and evaluation

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<td>〇〇〇</td>
</tr>
<tr>
<td>Are there external evaluations and analysis on budget spending? Do they include equity indicators?</td>
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<td>〇〇〇</td>
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<tr>
<td>How do monitoring and evaluation reports inform future budget decisions? Are programs cancelled or amended based on the results they have on disadvantaged groups?</td>
<td>PEFA indicator 2; PEFA indicator 16.4</td>
<td>〇〇〇</td>
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<td>Are CSOs representing the rights of the most marginalised involved in this stage of the process?</td>
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<td>〇〇〇</td>
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<tr>
<td>How is civil society involved in promoting budget transparency and performance?</td>
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<td>〇〇〇</td>
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Annex B: Data visualisation

In the following, different ways of data visualisation are described that can be used to convey information about the distributive impact of public expenditures on equity. This is useful considering that an EBT analysis is quite heavy with statistical data and that the subsequent discussion of the EBT findings (e.g. with the broader society) benefits from such a reduction of complexity.

Maps

The simplest and first dimension of equity to be considered is often the geographic distribution of public expenditures across a country. In many cases, urban centres – especially the capital city – receive a disproportionate share of public spending. In other cases, there may exist regional biases and complicated political tensions, which result in public resources being diverted to specific regions, or away from other regions.

The example below shows the public health expenditure per patient visit in Nepal.

Map 1: Unit cost of providing health services in Nepal, by region (total public expenditure on health divided by the total number of users of public health services)

(Source: EMC 2014)
Graph Bars
Another simple way of representing the distribution of public subsidies across population groups are graph bars. These can be helpful e.g. to highlight inequalities between different sub-groups of population, and highlighting disadvantages faced by marginalised groups.

In the example below from Burkina Faso, simulations are depicted of how changes in public education policy can affect the distribution of subsidies across income quintiles.

**Figure 3:** Simulating the possible impact of subsidised private education vs. free universal secondary (1st cycle), by quintile

**Subsidising private education**

**Free universal secondary education (1st cycle)**

Source: EMC 2014
Concentration Curves

When the population sub-groups are defined in terms of income or expenditure per capita, benefit incidence can also be expressed by a concentration coefficient (or index) and can be shown graphically by a concentration curve. This displays the cumulative incidence of benefits across the population, ranked, as for the Lorenz curve, from poorest to richest (before taxes, transfers and subsidies).

See the example from Swaziland below presenting concentration curves of gross subsidy from public expenditure on health care by type of facility.

Figure 4: Concentration curves of gross subsidy from public expenditure on health care in Swaziland, by type of facility
(Source: EMC 2014)