The Kenyan Budget
User's Manual to Kenya's Expenditures Database

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1. Introduction

A central function of any government involves collecting and spending public funds and maintaining records of such expenditures. National budgets vary greatly in terms of their organization, transparency, accuracy, and level of detail. For the researcher, the ability to easily access and analyze budgetary flows is essential to provide thorough and timely advice to policymakers and relevant stakeholders.

The purpose of this project was to construct a comprehensive database of the Kenyan budget by combining national and subnational expenditures from data for the period between FY 2002/03 onwards. The final version is presented in a user-friendly manner for use by researchers; it also forms the basis for the government expenditure database shown in the Open Data portal for Kenya. This manual describes the resulting database and provides the information necessary to analyze Kenya's public expenditures. This document is organized as follows:

- Part II outlines the structure of the Kenyan Government budget data.
- Part III presents the organization of the database.
- Part IV explains how to use the database using an Excel pivot table.
- Part V provides a complete codebook with value codes and variable definitions.

We hope it is helpful in opening new avenues of analysis and providing answers to important questions regarding the efficiency, equity, and effectiveness of government spending. As part of Open Data Initiative in Kenya, the BOOST team helped develop an online platform that allows users to analyze public expenditure data through web-based PivotTable and mapping interfaces. Our goal is to make the analysis of public expenditures easy and accessible for a non-technical audience, as well as to get citizens and policymakers thinking about the linkages between spending and results. You can access the Open Data Kenya Portal at https://opendata.go.ke/, and the Kenya BOOST portal at http://kenya.wb-boost.org/
2. Budget Structure

Kenya's government expenditures are divided into three main categories: i) the Central government budget, ii) the Constituency Development Fund (CDF), and iii) the Local Authority Transfer Fund (LATF).

The CDF was created to make sure that a share of the Kenya's budget is earmarked for constituencies to finance development projects. The CDF must be at least 2.5% of the Kenyan government ordinary revenue. The LATF was established to improve service delivery and financial management, and to reduce the outstanding debt of local authorities. LATF transfers 5% of central income tax revenues to local authorities to supplement revenues raised locally through land taxes, single business permits and other sources.

Data for the Central government budget was drawn from audited accounts of the Kenya National Audit Office; for Votes "50 Public Debt (CFS)" and "51 Pensions and Gratuities (CFS)" the data comes from the Consolidated Fund Services\(^1\). The source of the CDF is the Web portal of the Constituencies Development Fund (www.cdf.go.ke). The Ministry of Local Government provided reports for the LATF; these reports were scanned and digitized (converted to spreadsheet format).

2.1 Particularities of the Data

The Kenyan government data presents the following particularities:

- The Kenya BOOST uses audited accounts as the basis of execution – as such there are normally 2 year gaps for execution amounts. Budget data is scanned directly from budget books and placed in BOOST format by the team – it is hoped that as collaboration strengthens between the World Bank and the Ministry of Finance that data will be provided in easier to handle format in future updates.

- The inclusion of two distinct funds, the CDF and LATF, which disburse resources at the sub-national level, mostly development. Note that LATFs have been discontinues in 2012 following decentralizations while CDF projects continue to exist under county budgets.

- Change in economic classification. Starting in 2005/06 there was a change for Central budget data in the most detailed economic classification (econ3). There is a break in the classification and a direct comparison between the period 2002/03-2004/05 and the period 2006/05-2011/12 cannot be made. However, this is compensated by comparing the first and second level economic variables, econ1 and econ2, also known as GFS economic classification. This latter variable is not as disaggregated but allows us to compare across all year in the BOOST database.

- Another issue is that for econ3, the CDF and LATF have their own classifications and are not the same as the one in Central data. However, econ2 allows us to compare data across these

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\(^1\) Currently for these two votes budget estimates amounts are not available although the team is seeking to fill this gap.
three Kenyan budget categories (Central budget, CDF and LATF). The emergency funds were mapped as "other" for the economic and sector classifications.

- The variables of econ1 and econ2 were specifically created for the BOOST database, they were created to help compare data between different periods and between the Central budget, CDF, and LATF. These variables also enable analysis of the expenditure data at a more aggregated level of economic classification.

- Central budget data includes a column/variable (econ0) that identifies below the line (i.e debt redemption) and some revenues (appropriations in aid). These are funds that are earmarked for specific projects, mostly financed by donors. The appropriations in aid are technically debits (income), and the rest of the data is expenditure. So when tables are created for central data expenditure a filter has to be used to exclude the appropriations in aid data, otherwise there would be double counting of the expenditure that receives this type of funding.

- CDF data included in the BOOST is at the project level and the variable "Activity to be done" – drawn directly from the CDF website) is mapped to econ3, mostly comprised of capital expenditures. The data gathered for CDF funds refers to allocated budget; an assumption that is made for the BOOST, is that 100% of what is allocated is executed; this assumption is not necessarily true. The World Bank Institute also developed more detailed database with geo-location references, available in the Open Data Kenya Portal.

- An MTEF Sector variable was introduced; it distinguishes between 11 different categories. Since there is no functional classification for the Kenya budget the MTEF sector variables serves as a close substitute.

- A very small percentage of the budget data available can have a geographic breakdown. It is the CDF, LATF and about 1% of Central budget (identified through the sub-head or admin5).

- In 2012, a major administrative structural change occurred – at the moment of the writing of this manual, reconciliation between new and old structures still need to be carried out
3. Database Organization

The database combines expenditures by Kenya's central government and two main funds to provide additional resources for sub-national (local) governments: CDF and LATF.

3.1. Central budget data

Below is a complete list of variable descriptions for the Central budget data.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
<td>Fiscal Year</td>
</tr>
<tr>
<td>budgettype</td>
<td>Budget Type (Recurrent or Development Expenditure)</td>
</tr>
<tr>
<td>Econ0</td>
<td>Economic Classification (Level 1, Current or Capital)</td>
</tr>
<tr>
<td>econ1</td>
<td>Economic Classification (Level 1, Current or Capital)</td>
</tr>
<tr>
<td>econ2</td>
<td>Economic Classification (Level 2, GFS economic classification)</td>
</tr>
<tr>
<td>econ3</td>
<td>Economic Classification (Level 3, line item)</td>
</tr>
<tr>
<td>MTEF sector</td>
<td>Sector MTEF classification</td>
</tr>
<tr>
<td>Admin1</td>
<td>Central, local budget</td>
</tr>
<tr>
<td>admin2</td>
<td>Vote (Ministries or Agencies)</td>
</tr>
<tr>
<td>admin3</td>
<td>Sub-vote</td>
</tr>
<tr>
<td>admin4</td>
<td>Head</td>
</tr>
<tr>
<td>admin5</td>
<td>Sub-head</td>
</tr>
<tr>
<td>estimates</td>
<td>Budget Estimates (Kenyan Shillings)</td>
</tr>
<tr>
<td>revised</td>
<td>Revised Budget (Kenyan Shillings)</td>
</tr>
<tr>
<td>executed</td>
<td>Executed Budget (Kenyan Shillings)</td>
</tr>
<tr>
<td>econ1</td>
<td>Economic Classification (Level 1, Current or Capital)</td>
</tr>
</tbody>
</table>
The database contains four variables that correspond to different administrative classifications within the Kenyan Central budget. The first level of administrative classification, admin1, denotes that it is Central budget expenditure. The second level of administrative classification, admin2, identifies the type of spending unit that incurred the expenditure: Ministries and agencies, what is referred to as Vote. The third level of administrative classification, admin3, specifies the spending unit under which the funds were spent, this is referred as Sub-vote. Central government expenditures are then broken down further into admin4, which is Head, and further more into admin5, Sub-head.

Additionally, the database contains variables that correspond to the three levels of economic classification (econ1, econ2, and econ3), and two levels of sector classification (MTEF sector and subsector). Usually "Education" and "Health" are two distinct categories in the MTEF classification, however for the MTEF sector variable both of these categories fall under "Human Resource Development". The sub sector variable does make the distinction between education and health expenditures.

The database contains three variables that correspond to different budget amounts: Estimates contains the nominal amount (Kenyan Shillings) that was sent to the Parliament to be approved in each year's budget for a specific line item; Revised lists the corresponding amount of the budget that was revised by the legislature; while Executed contains actual expenditure (budget execution) associated with that line item.

### 3.2. Constituency Development Fund (CDF)

Below is a complete list of variable descriptions for the CDF.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Budgetary Divisions</strong></td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>Fiscal Year</td>
</tr>
<tr>
<td>econ1</td>
<td>Economic Classification (Level 1, Current or Capital)</td>
</tr>
<tr>
<td>econ2</td>
<td>Economic Classification (Level 2, GFS economic classification)</td>
</tr>
<tr>
<td>econ3</td>
<td>Project level activity</td>
</tr>
<tr>
<td>MTEF sector</td>
<td>Sector MTEF classification</td>
</tr>
<tr>
<td>sub sector</td>
<td>Sub-sector classification</td>
</tr>
<tr>
<td><strong>Administrative/Geographic Divisions</strong></td>
<td></td>
</tr>
<tr>
<td>admin1</td>
<td>CDF</td>
</tr>
<tr>
<td>admin2</td>
<td>Constituency</td>
</tr>
<tr>
<td>admin6</td>
<td>CDF project</td>
</tr>
<tr>
<td>province</td>
<td>Province</td>
</tr>
<tr>
<td>county</td>
<td>County</td>
</tr>
<tr>
<td>district</td>
<td>District</td>
</tr>
<tr>
<td><strong>Expenditure Amounts</strong></td>
<td></td>
</tr>
<tr>
<td>executed</td>
<td>Executed Budget (Kenyan Shillings)</td>
</tr>
</tbody>
</table>
The database contains four variables that correspond to different administrative/geographic classifications within the CDF. The first level of administrative classification, \textit{admin1}, categorizes this as a CDF, \textit{admin2} identifies the Constituency. The following three levels correspond to the Province, County and District, and finally \textit{admin6} identifies the CDF project. A visual representation of the administrative hierarchy can be found in Graph 2.

\textbf{Graph 2. Hierarchy of Administrative Classification Variables}

\begin{center}
\begin{tikzpicture}
  \node {admin1: CDF};
  \node [below] {Constituency};
  \node [below] {Province};
  \node [below] {County};
  \node [below] {District};
  \node [below] {CDF project};
\end{tikzpicture}
\end{center}

\subsection*{3.3. Local Authority Transfer Fund (LATF)}

Below is a complete list of variable descriptions for the LATF. Graph 3 also shows the relationship between the variables as well as the hierarchy among them.

\begin{table}[h]
\centering
\begin{tabular}{|l|l|}
\hline
\textit{Budgetary Divisions} & \\
\hline
\textit{Year} & Fiscal Year \\
\textit{econ1} & Economic Classification (Level 1, Current or Capital) \\
\textit{econ2} & Economic Classification (Level 2, GFS economic classification) \\
\textit{econ3} & Economic Classification (Level 3, line item) \\
\textit{MTEF sector} & Sector MTEF classification \\
\textit{sub sector} & Sub-sector classification \\
\hline
\textit{Administrative/Geographic Divisions} & \\
\hline
\textit{admin1} & LATF \\
\textit{admin2} & Local Authority \\
\textit{province} & Province \\
\textit{county} & County \\
\textit{district} & District \\
\textit{estimates} & Budget Estimates (Kenyan Shillings) \\
\textit{revised} & Revised Budget (Kenyan Shillings) \\
\textit{executed} & Executed Budget (Kenyan Shillings) \\
\hline
\end{tabular}
\end{table}
4. How to use the Kenya BOOST Database

For ease of use, the BOOST team has developed a standard user interface through which to access the BOOST government expenditure database with the help of Excel PivotTables.

A PivotTable report is an interactive way to quickly summarize large amounts of data. Use a PivotTable report to analyze numerical data in detail and to answer unanticipated questions about your data. A PivotTable report is especially designed for:

- Querying large amounts of data in many user-friendly ways.
- Subtotaling and aggregating numeric data, summarizing data by categories and subcategories, and creating custom calculations and formulas.
- Expanding and collapsing levels of data to focus your results, and drilling down to details from the summary data for areas of interest to you.
- Moving rows to columns or columns to rows (or "pivoting") to see different summaries of the source data.
- Filtering, sorting, grouping, and conditionally formatting the most useful and interesting subset of data to enable you to focus on the information that you want.
- Presenting concise, attractive, and annotated online or printed reports.¹

PivotTables are straightforward and easy to use and allow for quick, customizable analyses of large amounts of data. This section presents several examples of using the BOOST PivotTable interface to general custom reports. With BOOST, as with many things in life, the best way to learn is by doing.²

When analyzing Central Budget data in the Kenya BOOST, a very important thing to take into consideration is the inclusion of appropriations in aid. As it was noted in the particularities of the data section, appropriations in aid represents the aid revenue that comes from donor and is earmarked for a specific project. It is important to use a filter for the econ0 classification variable, otherwise you would be double counting.

**Example 1: Appropriations in Aid in Central Budget data**

Figure 1 below presents a simple example to see what is the amount of appropriations in aid for a specific case.
To generate this PivotTable, in the Report Filter box we add the following variables: admin1 (Central or Sub-national spending) and select "Central", econ0 and select "A-in-A", admin2 (Vote, Constituency or Local Authority) and select "06 Ministry of Planning and National Development", admin3 (Sub-Vote) and select "06.061 Planning And Development Services", admin4 (Head) and select "06.061.207 Rural Planning Department", Year and select "2010/11"; admin5 (sub-Head) is placed in the —Row Labels— box and the sum of Executed in the —Values— box.

Figure 1. Example of Appropriations in Aid

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Example 2: Analogous case without Appropriations in Aid in Central budget data

1. To generate this PivotTable, in the —Report Filter box we add the following variables: admin1 (Central or Sub-national spending) and select "Central", econ0 and deselect "A-in-A", admin2 (Vote, Constituency or Local Authority) and select "06 Ministry of Planning and National Development", admin3 (Sub-Vote) and select "06.061 Planning And Development Services", admin4 (Head) and select "06.061.207 Rural Planning Department", Year and select "2010/11"; admin5 (sub-Head) is placed in the —Row Labels— box and the sum of Executed in the —Values— box.
Figure 1 and Figure 2 help illustrate the need to always have the *A-in-A* variable in the filter when you are analyzing Central budget data. The first example gives a breakdown of user fees and other sources of revenue allocated to those budget items, the second example gives the actual expenditure. Generally, the expenditure will be more (or equal) to the appropriations in aid amount, this is due to the fact that expenditure is funded by aid money, tax revenue and other resources originating from the Ministry of Finance, not captured in this database.

**Example 3: Time Trend Analysis**

Figure 3 below presents a simple example of time trend analysis at the macro level. It reports (in nominal terms) the total government expenditures from Fiscal year 2002/03 to 20010/11, broken down by the *admin2* (Vote) classification. To generate this PivotTable, in the —Report Filter! box we select "central" in the *admin1* (Central or Sub-national spending) and as usual deselect *A-in-A* from *econ0*; *admin2* (Vote, Constituency or Local Authority) is placed in the —Row Labels box, *Year* in the —Column Labels box. The values in the body of the table consist of the sum of the *Executed* variable.
Example 4: Composition Breakdown

Figure 4 below presents a breakdown of 2007/08 government expenditures by the two top economic categories for each ministry in Kenya's budget classification. To generate this PivotTable, econ1 (current or capital) and econ2 (GFS economic classification) are placed in the —Row Labels box; admin2 (Vote, Constituency or Local Authority) in the —Column Labels box; and in the —Report Filter box we select "central" in the admin1 (Central or Sub-national spending), "(blank)" for A-in-A, and "2007/08" for Year. The values in the body of the table consist of the sum of the Executed variable.