

# Using Public Expenditure Tracking Surveys to Monitor Projects and Small-Scale Programs

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*A Guidebook*

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This guidebook is the product of a collaborative effort between the World Bank Human Development Network's Office of the Chief Economist and the Transparency and Accountability Program (TAP) of the Results for Development Institute. The goal of this partnership is to support the capacity of civil society organizations to monitor and evaluate government programs in the human development sectors.

The World Bank contributes to this partnership by offering support to civil society organizations participating in the program, including contributing technical expertise on Public Expenditure Tracking Surveys (PETS) and absenteeism methodologies, preparing training materials, reviewing research instruments and reports, and supporting workshops and courses for the researchers involved in the studies. The Bank also takes an active role in making connections between the civil society organizations (CSOs) supported by TAP and task teams to build links with operations.

Established in 2006 with support from the William and Flora Hewlett Foundation, TAP focuses on strengthening the demand side of governance by providing technical and financial support to civil society organizations (e.g., non-governmental organizations NGOs, think tanks, and universities) involved in promoting the accountability of public services to civil society and to citizens through analysis and advocacy.

TAP's activities aim to address the major barriers that civil society organizations face in turning actions into results: weak institutional capacity and skills, non-existent or adversarial relationships with government and policymakers, and lack of access to information. TAP helps organizations overcome these barriers by supporting access to information, providing both the incentive and tools to develop analytic skills and capabilities, and providing technical support and peer learning opportunities to help connect

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civil society organizations with government and stakeholders so that their policy recommendations might be heard.

This guidebook benefitted from comments by and conversations with many colleagues, including Zafar Ahmed, Deon Filmer, Ariel Fiszbein, Bernard Gauthier, Markus Goldstein, Charles Griffin, Kai Kaiser, Dena Ringold, and many current and former TAP program participants.

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# Using Public Expenditure Tracking Surveys to Monitor Projects and Small-Scale Programs

## Overview

Most often, Public Expenditure Tracking Surveys (PETS) are referred to in the context of a large, nationally sampled public expenditure review, or in the context of similar studies conducted by organizations such as the World Bank. A tried and tested methodology, PETS have been shown to be effective in identifying delays in financial and in-kind transfers, leakage rates, and general inefficiencies in public spending. Recently, civil society organizations have successfully taken up this methodology as part of a push for budget accountability from the ground up, an effort supported in part by the creation of this guidebook.

Civil society organizations' comparative advantage resides in their ability to "take the temperature" on the ground and to act on those issues that are most heated in the minds of the citizens whom they represent. In many cases, service delivery in the education and health sectors is a top priority. One way of improving service delivery, by keeping both governments and service providers accountable, is through the monitoring of budgets and efficiencies in public spending. PETS, when used by civil society organizations, offer an opportunity to carefully monitor specific programs or public spending in targeted districts and regions. Moreover, this instrument may be used to monitor World Bank and other projects. This brand of accountability strengthens the voice of citizens and focuses the discussion on problems that may be micro-level in nature, or specific to a particular region of a country.

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The goal of this guidebook is to serve as a starting point for civil society organizations, as well as Bank teams interested in conducting Public Expenditure Tracking Surveys, both on a small and larger scale. It is designed to lead a research team from idea inception to results dissemination, while emphasizing the importance of utilizing evidence to influence policy, regardless of whether it is on a macro or microlevel. Though the World Bank has been at the forefront of efforts to measure the effectiveness of service delivery, it is hoped that Bank teams and civil society alike will take the research one step further and empower citizen users to keep service providers accountable through information dissemination and citizen engagement efforts.

### **The Power of PETS**

Experiences with PETS point to the strength of this particular methodology when used to monitor programs, projects, and public spending. Some illustrative examples of findings from these studies include the experiences of Ghana, where 50 percent of non-wage education expenditures and 80 percent of non-wage health expenditures did not reach intended beneficiaries; of Zambia, where leakage rates of discretionary non-wage expenditures reached 76 percent; and of Chad, where less than 1 percent of the non-wage budget officially allocated to regions actually reached health centers.<sup>1</sup> In Ghana, researchers found that incidences of leakage were more prevalent when the value of in-kind materials distributed to beneficiaries was unknown. Researchers in Zambia found evidence to suggest that a few select schools with greater bargaining power were able to capture the majority of the funds. And, in the case of Chad, it was estimated that, had all resources officially budgeted to regions actually reached service providers, the number of patients seeking primary health care would have more than doubled. These examples are only a small indication of what researchers can do by strategically utilizing the PETS methodology.

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<sup>1</sup> Ye and Sundharshan 2002, Gauthier and Wane 2006, and Das, et al 2004a.

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## What is a Public Expenditure Tracking Survey?

Public Expenditure Tracking Surveys are tools in a methodology used to track the flow of public resources (including human, financial, or in-kind) from the highest levels of government to frontline service providers. PETS first identify a research objective, then employ an extensive mapping exercise in order to understand the flow of funds through the different levels of government. Once the resource flows are mapped, budget data are collected and analyzed, and often complemented with a facilities survey and qualitative research. PETS can help civil society and policy makers alike to understand funding flows, identify areas of leakage, and make informed policy decisions based on their findings.

### Goals and Uses

PETS were developed to gather information beyond official data and administrative records to understand what actually happens to money that is appropriated for service delivery. We propose a two-tiered typology to describe how PETS can be applied in the human development sectors.

### Analytical PETS – PETS with an Applied Research Focus

The first PETS conducted by the World Bank was a *diagnostic* tool to support a Public Expenditure Review (PER) in Uganda. At the national level, funding had been provided for non-salary expenditures to each school in the form of a capitation grant. Normally a PER would take note of the amount attributed to each school and how it compared to what was needed for non-salary inputs. In this case, the PETS allowed analysis of what actually happened in the allocation; the result was startling. On average, 87 percent of the grant did not reach the school and was diverted along the way. The Ugandan government subsidized an information campaign alerting service users to the findings, whose results were later correlated to a decrease in the amount of the grant being diverted in subsequent years. Outside agencies have come to see PETS as a good instrument for

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ascertaining what actually happens to money or goods that are supposed to reach service delivery points.

PETS, and other similar methodologies,<sup>2</sup> are important in showing systemic problems related to how a budget is executed, which—with auditing and evaluation—is typically the weakest element of government performance (as shown by PEFA surveys and the Open Budget Initiative).<sup>3</sup> In the case of Uganda, the discovery of leakages and the public campaign to alert parents seem to have adequately addressed the problem.<sup>4</sup>

One way of using this approach to PETS, especially on a more micro level, might be to consider whether there are higher rates of leakage and capture in certain districts than others, or to focus the research by targeting a specific question, program, or geographical location. Yet another design might examine different types of education or health facilities and then compare outcomes. When using PETS as an analytical tool, researchers or civil society organizations can utilize the findings to identify causes, which they can then use as evidence to inform policy decisions; advocacy supported by robust results can be a powerful tool, regardless of whether a research team is working at the grassroots or national level. In many cases consulting firms or universities are contracted to conduct analytical PETS because the function of the research is to derive generalizations at a fairly high level. However, developing capacity among civil society organizations interested in scaling up research efforts should also be considered.

### **Monitoring PETS – PETS with a Governance Purpose**

There is another way to use PETS, which is the primary purpose of this guide. Monitoring PETS, which are also analytical in nature, ask whether

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<sup>2</sup> Quantitative Service Delivery Surveys, Public Expenditure Reviews, Public Budgeting Analysis, Benefit-Cost Analysis, etc.

<sup>3</sup> <http://www.pefa.org/> and <http://www.openbudgetindex.org/>

<sup>4</sup> Reinikka and Svensson 2001.

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an intervention is working as intended and other narrow questions about service delivery at the local level. Typically, they do not seek to solve national problems or devise new laws or regulations that could change incentives countrywide, though this sometimes ends up being the result. World Bank teams, for example, may have an interest in ensuring that the intended beneficiaries of a project are able to monitor whether, and what, the project is delivering. In that case, it would not make much sense to turn the job over to a consulting firm, a university, or a government agency, because part of the purpose is to generate knowledge among those who have an interest in demanding better results—the users—and to increase their ability to monitor and advocate for improvements.

Monitoring PETS can also amplify the *voice* of civil society organizations and user-citizens by giving them an empirical tool to demand, on behalf of end-users, improvements in governance, management, and delivery of services, at least from the standpoint of resource provision and the reduction of financial waste. Because they are based on facts, PETS-derived lessons can help civil society organizations build credibility through knowledge-based constructive engagement with governments and seek feasible changes on the local level. CSOs are able to shift from pure advocacy—for causes, for higher spending, or for rights—to an analytically-based approach that demands accountability for results and for delivery on promises already made. An example of bridging the gap between analytical and monitoring PETS exists in Uganda where the first step was diagnosis through an analytical PETS, next was a public media campaign as a solution, and finally a follow-up survey to ascertain what occurred. In Uganda, using PETS identified a particular problem, action was taken to address the problem, and the result was monitored. The monitoring PETS combines diagnosis, action, and follow-up. If performed locally by a CSO that is interested in monitoring governmental performance, the PETS can also contribute to institutional development in this area.<sup>5</sup>

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<sup>5</sup> Reinikka and Smith 2004. Gauthier 2006.

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One example of a CSO-led PETS incorporating diagnosis, action, and follow-up—as well as discernable policy change—comes from Centro de Investigaciones Económicas Nacionales (CIEN) in Guatemala. Responding to the call from a newly elected Minister of Education to improve education in her first 100 days in office, CIEN designed a PETS to identify existing problems in six primary school financing programs including support for textbooks and school meals. While CIEN found little evidence of leakage during its study, the organization identified significant delays in the distribution of resources to schools. Interviews and focus group discussions carried out in conjunction with the study allowed researchers to diagnose one possible cause for these delays: a school calendar that overlapped with the fiscal calendar and led to backlogs in approving resource allocation and delivery to schools. CIEN took action by presenting findings and recommendations to a willing Minister of Education. CIEN continually followed up with the Minister to encourage adoption of its recommendations, which contributed to the Ministry's decision to shift the school calendar in 2009 in order to address the delays.

It is hoped that this manual will serve as a guide for organizations and research teams alike; the general procedure is the same regardless of the purpose. Scaling it up for an analytical PETS would be straightforward, but here there is an emphasis on choosing a narrow purpose, developing a small sampling framework, carrying out the work inexpensively, and taking the important final step of not shelving the study but of advocating for change, based on the findings.

An important item to note is that, by focusing on a discrete and measurable objective, as we suggest in this guidebook, researchers are likely to be looking at a very small portion of the overall government expenditure. This was the case with the first PETS conducted in Uganda, where the capitation grant tracked represented approximately 3 percent of the recurrent expenditure on education. This does not in any way diminish or lessen the importance and impact that a small-scale exercise may potentially have. Nonetheless, understanding the limitations of these types of studies is essential.

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## Step 0. Defining the Objective

The first step in conducting a PETS—defining its objective—can be the most significant step in determining whether the implementing organization succeeds in conducting a valid and valuable study and whether the work has a short-term or long-term impact on public spending and service delivery. Defining a *clear objective* for a PETS will drive not only the scope of the study, but will also determine what an organization or research team can do with the study’s results. That said, thinking about the way in which the research results will be used can also be a powerful tool for determining the objective and scope of the study. For either category of PETS—analytical or monitoring—defining the objective involves making critical decisions about the study, including *selecting the topic and scope, developing research questions, and identifying target audiences*.

### Selecting the Topic and Scope

The success of any research team in conducting a high-quality and high-impact study depends first on how well the topic and scope of the research are defined. A list of PETS conducted by the World Bank alone (Annex A) illustrates the breadth of possible study topics. Comparing these studies with those conducted by CSOs (Annex B) further demonstrates the difference in scopes among successful PETS. It is critical that implementers choosing to conduct a PETS make decisions about the specific scope and focus of their study. Table 1 presents a non-exhaustive list of questions and examples of decisions made in response.

When answering these questions, research teams should consider what they are trying to achieve with the PETS project (both the study itself and the advocacy and dissemination of results) and how to design the project to best achieve these goals. While the project design and choice of topic should take into consideration a number of different factors, there are three questions that we recommend all research teams ask during the project design process. We call this the **FIR** criteria:

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- ***Is the proposed topic FEASIBLE for your organization?*** CSOs are well-placed to implement PETS because of characteristics that they share—namely, being based in-country and having an understanding of the local context. However, individual CSOs have differing strengths, and the most successful PETS are designed to complement an organization's strengths. For example, the Centre for Regional Information and Studies (PATTIRO),<sup>6</sup> a research advocacy organization in Indonesia, designed a tracking study of education program grants that supplemented basic quantitative findings with qualitative results from focus group discussions and interviews. On the other hand, the Romanian Academic Society (SAR),<sup>7</sup> a think tank, conducted a more rigorous quantitative analysis of school spending in Romania. Both of these CSOs built upon the existing strengths of researchers rather than attempting to conduct a study that fell outside their areas of expertise.
- ***Is the proposed topic of INTEREST to the target audiences?*** A common mistake made with PETS and other public expenditure studies is that they are seen by project implementers as purely research exercises. To maximize the likelihood of improving policies and the effectiveness of public spending, CSOs and project teams should choose a topic with an eye towards getting the attention of stakeholders and using their results to influence positive change. One way of approaching this is for implementers to choose a topic that is of interest to the people that they hope to influence. For example, focusing the research on an area that is being focused on by the national government. Furthermore, and perhaps even more essential, research teams can increase the likelihood of successfully impacting policy change by identifying a policy entry-point or a well-placed champion for the cause, or by packaging the results in such a way that the research team is targeting the right audience and being heard by the right people.
- ***Is the proposed topic RELEVANT to the organization's mission and long-term agenda?*** Target audiences such as policymakers, NGOs, and the public are not the only ones that should buy into

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<sup>6</sup> <http://www.pattiro.org/>

<sup>7</sup> <http://www.sar.org.ro/>

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the project design and topic; the implementing CSO or project team should choose a topic that fits into its mission and agenda for the future. While project funding can be attractive to CSOs, it can also have the unintended effect of taking an organization off its mission-designated path. Project topics should not be donor-driven; the most successful PETS are designed to address the mission and goals of the lead organization, as well as critical needs identified on-the-ground.

**Table 1. Selecting a PETS Topic**

Question	Examples
What facility level?	Primary schools versus secondary schools
What facility type(s)?	Public, Private, NGO-led
What category of spending or resource flow?	Salaries, Capital spending
What program or policy?	Scholarship program, Textbook fund, Vaccine spending or in-kind transfers
What is the geographic scope?	Focus on entire country, specific province(s), specific district(s)

### A Case for Targeted PETS

While the World Bank and individual country governments have undertaken large-scale, sector-wide PETS in the education and health sectors, the most successful and most frequently cited studies have focused on specific programs or policies. The incentive PETS conducted in Uganda in 1996 followed the allocation and disbursement of capitation grants for non-wage spending in Ugandan primary schools. While many factors contributed to the success of this PETS in lowering the level of leakage in the Ugandan program, the value of focusing on one program cannot be overstated. Armed with unambiguous evidence of leakage points in the capitation grants program, the public and media could easily transition to monitoring improvements in grant distribution and holding the correct officials accountable for any continuing problems.

Recent PETS conducted by civil society organizations have taken similar approaches and shown early signs of success in developing a sustainable system of monitoring spending in specific programs. Focusing on a specific program or policy provides many advantages for smaller scale exercises:

- ***Implementation is less complicated.*** Rather than having to disentangle the large and often complicated web of sector-wide spending, a research team can focus on the small portion of the web that goes to its program of interest. Further, program-specific PETS generally require fewer data sources, increasing the likelihood that implementers will manage to gain access to all necessary data in a timely manner.
  - ***Audiences are easier to target.*** A well-implemented PETS will generally identify areas for improvement (if not points of leakage) at each stage of the expenditure chain. Successful dissemination of results and recommendations includes bringing results back to government officials and service providers at each of those links in the chain. In a sector-wide study, the number of individuals or departments that would need to be targeted for dissemination can be daunting. In a PETS that focuses on a particular program or policy, the audiences for dissemination are smaller in number and generally easier for a team to target.
  - ***Recommendations are often targeted, concrete, and more attractive to policymakers.*** Large-scale PETS take on the difficult task of evaluating the effectiveness of public spending for an entire sector, and the recommendations that come out of the studies often reflect this. For example, without focusing on specific components of education spending, project implementers generally identify system-wide problems and recommend solutions that reform the wider public expenditure management system. While these recommendations are often valuable, they are not always as attractive to policymakers (especially those facing short political terms or upcoming elections). On the other hand, a PETS that focuses on a textbook spending program can identify very specific problems and develop tangible and frequently inexpensive solutions. When presented with this type of recommendation by a credible CSO or team of researchers, policymakers are much more likely to be amenable to implementing the proposed solution.
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**Box 1. World Bank Health PETS Nigeria<sup>8</sup>**

**Motivation:** To assess a decentralized delivery of health services under a federal system.

**Findings:**

- Large-scale leakage of public resources in Kogi State.
- 42 percent of health staff had not received salaries in over six months, despite the fact that budget allocations were sufficient to cover costs.
- To supplement salaries, public health providers charged for services illegally, while expropriating drug supplies and selling them to patients.

**Follow Up:** Though the study suggested that providing service users and citizens with more information about budget resources so they could hold providers accountable, no documented post-PETS experiences currently exist.

## Developing Research Questions

Like topic and scope, the list of possible research questions that a PETS can be used to answer is extensive. The most cited findings from expenditure tracking studies are leakages in spending. Results of leakage also tend to command the most attention in the media and the public because they can explicitly point out instances of corruption. Budgeting and expenditure analysis are often described as unglamorous topics; however, demonstrating corruption in the form of stealing public money is likely to grab the attention of those who are not normally interested in public spending. Implementers can also take the next step to explore patterns in leakages across geographic areas or time of year and determine potential causes of these problems.

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<sup>8</sup> Das Gupta, Gauri, Khemani, 2004.

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In addition to leakages, though, PETS studies can uncover many other problems with the functioning of the public expenditure management system and service delivery. PETS, along with review of financial records at facility and government levels, can also uncover delays and inefficiencies in resources reaching their intended beneficiaries. These issues can be due to poor planning, simple accounting errors, pharmaceutical expiration dates leading to medicines going unused, or inexplicable losses due to human error. In other words, leakage does not necessarily mean corruption.

Past PETS have also frequently been expanded to include a collection of data on service provider absenteeism, mismatches between facility needs and allocations, and user satisfaction with public services.<sup>9</sup> Although these topics are not a part of traditional PETS, research teams and civil society organizations often bring one or more of these additional questions into their budget tracking studies.

Before developing surveys and other methodological tools, it is valuable for the implementers to determine what questions they are hoping to answer with the study. Examples of questions (investigative and analytical) are listed in Table 2.

We make the same case for research questions as we do for topic and scope; taking a targeted approach increases the feasibility of the study and the likelihood of successful dissemination and advocacy of the PETS results. While it can be tempting for implementers to attempt to answer all of these possible research questions with one study, narrowing the list of questions allows researchers to focus on the issues that are most important and investigate those few issues in a much more rigorous way. Limiting the list of research questions also allows implementers to design and administer shorter surveys that are less burdensome to respondents, increasing the likelihood of a high response rate.

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<sup>9</sup> Information on methodology like quantitative service delivery surveys is available online at <http://go.worldbank.org/MB54FMT3E0>.

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**Table 2. Examples of Diagnostic and Analytical Research Questions for PETS Studies**

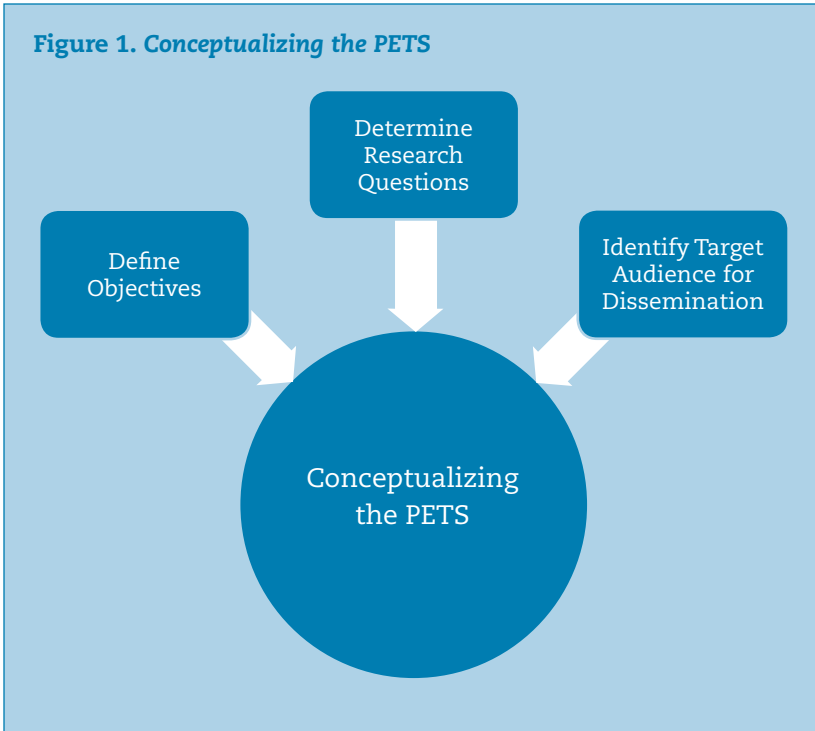
Investigative Questions	Analytical Questions
What is the level of leakage?	How does the level of leakage vary across districts?
At what stages of the expenditure chain do leakages occur?	Are schools with X characteristic less likely to experience leakages?
Are there delays in resources reaching beneficiaries?	Are there institutional factors or characteristics of the expenditure system that may be causing delays in resource disbursement?
What is the level of absenteeism?	How does absenteeism vary between different facility types?
Does the funding requested by facilities match the funding allocated to them?	

Many PETS implementers find it helpful to utilize a research matrix to carefully define their topic and research questions and to ensure a targeted and narrow set of objectives. The sample matrix in Figure 2 comes from ABANTU for Development,<sup>10</sup> a Nigerian CSO currently implementing a PETS in the education sector, with the support of a grant from the Transparency and Accountability Program. A matrix such the one in Table 3 allows implementers to translate objectives into specific research questions, variables, and necessary sources of data.

### **Identifying Target Audiences and Developing a Dissemination Plan**

The final critical component of defining project objectives is to identify the target audience for the study and develop a dissemination plan. A common criticism of PETS is that, while the study may identify critical

<sup>10</sup> <http://www.abantunig.org/>



issues, the results are not utilized to improve the efficiency of public spending or service delivery.

One way in which implementers can ensure that that PETS results gain traction after the project is completed is to begin the PETS process with a plan of how results will be used to enact change. Research teams should begin by identifying and consulting with the project's target audiences before it has been implemented. Gaining buy-in from stakeholders at the project design phase will secure the interest of audiences in the topic and increase the probability that they will implement the recommended changes following the completion of the study.

In addition to identifying target audiences at the beginning of the PETS, implementers should also develop a strategy to keep these stakeholders informed and involved throughout the project's duration. This is particularly

Table 3. Sample Research Matrix for PETS

Objectives	Questions	Variable of Interest	Data Source <sup>1</sup>	Method of Data Collection	Data Collection Tool
To understand the mechanism of resource allocation in the education sector at the state and LGC levels and identify major issues in budgetary allocation in 3 LGAs in Kaduna State	<p>What are the procedures with regard to resource allocation and transfers?</p> <p>What are the spending patterns at each level?</p>	<ul style="list-style-type: none"> <li>• What was budgeted?</li> <li>• What was approved?</li> <li>• What was released to the sector?</li> <li>• What are the methods of disbursement of funds at the two levels?</li> <li>• What is the funding gap to sector needs?</li> </ul>	State budget LGA budget SUBEB budget MOEP	Desk review	Extraction forms/checklist
To identify problems with resource allocation and transfers	<p>What are the procedures with regard to resource transfers?</p> <p>What are the spending patterns at each level?</p>	<ul style="list-style-type: none"> <li>• Actual funds received at each level?</li> <li>• Efficiency in disbursement?</li> <li>• Budget discipline?</li> <li>• Transparency and Accountability of funds at all levels?</li> <li>• Challenges and constraints?</li> </ul>	Financial records of the tier Finance and administration officials at the two levels	Extraction In-depth interview	Extraction forms/checklist In-depth Interview schedule

<sup>1</sup> LGA – local government area; SUBEB – State Universal Education Board; MOEP – Ministry of Economic Planning  
From Research Matrix developed by ABANTU for Development based on materials presented by Delius Aslimue, July 2009.

true for studies that are implemented over a long period of time. While stakeholders may show enthusiasm at the beginning of a project, this interest can wane if there are significant stretches of time during which the research team does not provide these individuals with updates. At the same time, researchers should be aware of and adapt to changes in their constituency and government counterparts, as contexts such as the political climate and government representation may change.

While interacting with stakeholders, it is best for research teams to know what their dissemination and advocacy goals are. However, strategizing about what advocacy and communications activities will be undertaken, who will be targeted, and what will be achieved is a valuable exercise to undertake before the first pieces of data are collected.

#### **Choosing a Topic – Major Take-Aways**

- Consider whether your topic is feasible given the skills of your project team, of interest to policymakers and other key audiences, and relevant to the mission of your organization.
- Narrowing the focus of the PETS can make implementation and subsequent advocacy easier and more effective.
- In addition to selecting a topic, develop research questions that you hope to answer with your study and keep these questions in mind as you create your methodology and instruments.
- Identify key audiences before beginning the work plan to ensure buy-in and willingness to listen to results and recommendations.

### **Step 1. Mapping Resource Flows**

A core idea behind Public Expenditure Tracking Surveys is that government officials and facilities have an incentive to misrepresent the amount of resources going to service users if some fraction of these resources is being used for purposes for which the funds are not intended (including padding the pockets of politicians and diverting to other public spending

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line items). To deal with this problem of incentives, PETS implementers triangulate budget data by looking at records from all of the places where money changes hands for particular resource flows. Viewing district level records of money allocated to a primary school by itself cannot identify potential corruption; comparing these records to ones kept by the primary school itself and seeing that the two records do not match, however, can point to a place where money may have leaked.

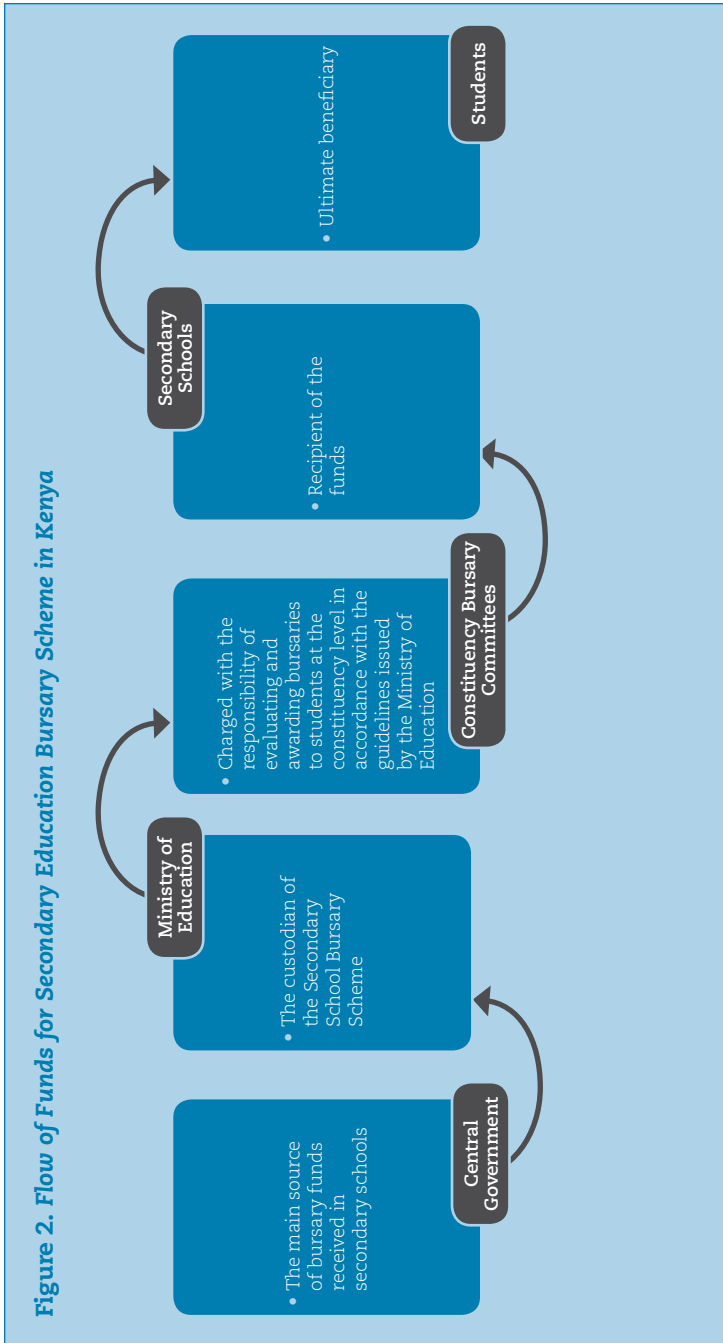
Before triangulating budget data however, implementers must prepare to collect the necessary data. One critical step that research teams must take before actually gathering the data is determining what data are necessary. Most public social sector funds go through many hands before reaching the service user, and accurately determining both the level and location of leakages requires that project teams start with a complete and correct picture of what the *expenditure chain* looks like. This exercise in and of itself can be a major contribution of a PETS. Though various entities (government ministries and agencies) understand their own budgets and transfers systems, very few, if any, truly understand how frontline service providers are actually funded. A well-mapped PETS can serve as a vehicle for establishing this information.

Mapping the flow of resources also provides a good list of sources from which to gather the data needed to conduct the PETS. Researchers should also note that different entities along the expenditure chain may call the same pot of money by different names, potentially making data collection and analysis more challenging if not noted and accounted for at early stages of research.

The resource map may be a relatively simple flow or a complex web with multiple sources of funding and links in the chain. A 2008 tracking study by the Institute for Policy Analysis and Research (IPAR) in Kenya followed the flow of secondary education bursary funds from the central government to the secondary school level.<sup>11</sup> IPAR's background work

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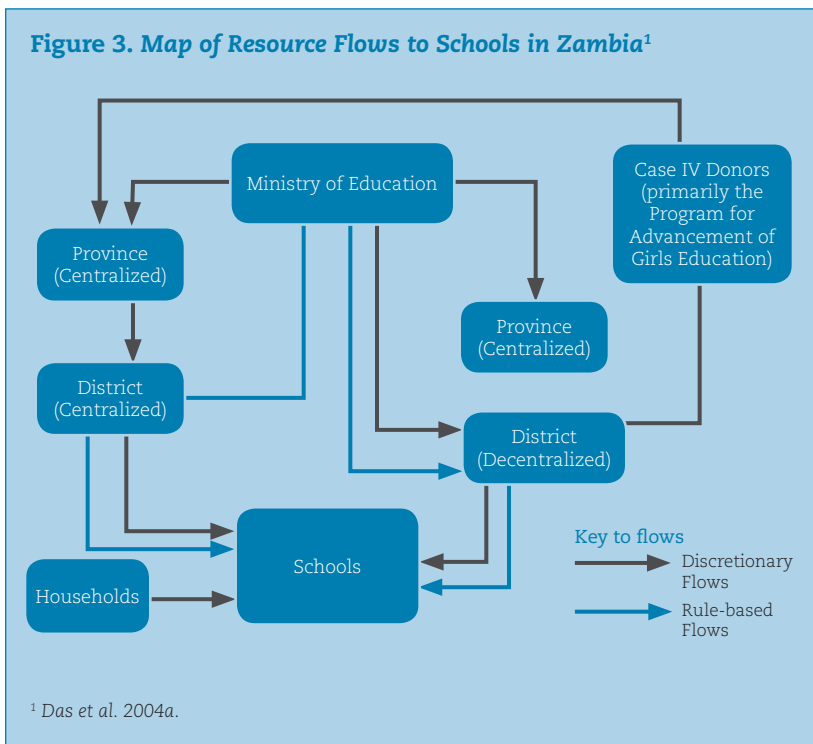
<sup>11</sup> Oyugi, Riechi and Anupi 2008.





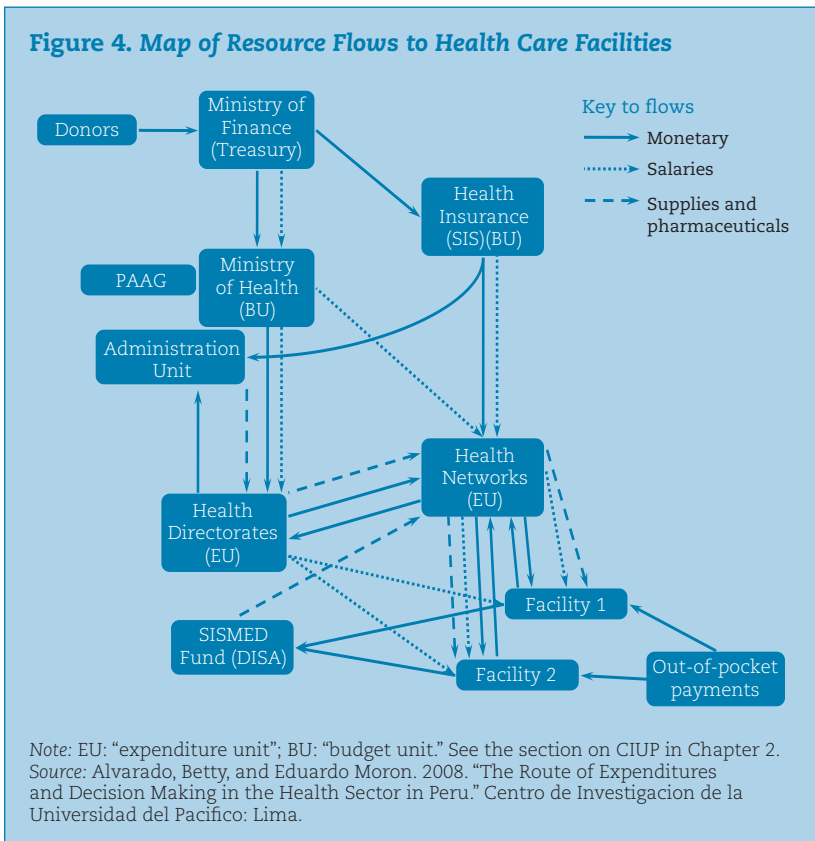
mapping the flow of funds demonstrated a simple flow through four links in a chain: the central Government, Ministry of Education, Constituency Bursary Committees, and the secondary schools (Figure 3). All of the funding for this scheme goes through the same channels, providing the research team from IPAR a clear list of data that it would need to collect.

Another example of a reasonably easy to follow resource flow is found in the 2002 Zambia PETS conducted by the World Bank, as seen in Figure 3. In this analysis, six main flows of funds were identified and categorized by their sources, types, and discretionary powers in fund allocation. This PETS tracked non-wage financial flows from the Ministry of Education and donors at the district, provincial, and facility levels. Unlike many other PETS, in-kind transfers and salaries were excluded from the analysis. The main objective of this study was to determine:



1) whether schools received their allocated lump-sum payments; 2) if and how provinces and districts supported schools through discretionary spending; and 3) how decentralization affected fund allocation.

Not all programs or sectors follow a relatively simple linear pattern like that of the Kenyan secondary education bursary scheme, or in the case of Zambia. Budget flows can be complex and tangled, as illustrated in the resource flow mapping for Peru's health sector from the Research Center of the University of the Pacific (Figure 4). A mapping of resource flows to Peruvian health care facilities demonstrates the myriad ways in which resource flows can prove to be complicated. First, funds originate from many different sources, unlike the bursary funds in Kenya that all start at



the central Government level. Second, the direction of flows is not always “one way.” Third, the resources that flow through the health expenditure chain are not only monetary but also in-kind. Despite the complexity of the resource mapping, an expenditure tracking exercise requires collecting data from each of these links and knowing how each link in the chain is connected in order to accurately identify leakages and other problems in the system. One example of the problems that can arise from an incorrect resource flow mapping is provided in Box 2.

There is no algorithm for uncovering how resources are supposed to flow through a system, often making the exercise of mapping funds a tedious one. Some resource flows may be common knowledge to those working on public expenditure analyses. In other cases, research teams may have to interview facility-level administrators to uncover the source of their funding and follow the chain up to the funding source. Regardless of the method used to map the flow of funds, the importance of starting with an accurate mapping cannot be overstated.

**Box 2. *The Importance of Mapping: Tanzania***

Not mapping the resources correctly can have detrimental effects on the accuracy and impact of a PETS. In 2003, an education expenditure tracking exercise in Tanzania found minimal leakages of funds (5 percent) for the Primary Education Development Project.<sup>12</sup> However, further investigation uncovered that the actual level of leakage was much higher than that estimated in the 2003 PETS. The reason for this miscalculation was that the consultants carrying out the PETS had only looked at funds coming from the Ministry of Finance. By leaving out two additional main sources of funds for the program (Ministry of Education and Ministry of Local Government), the implementers had ignored a significant fraction of the expenditure chain, resulting in skewed findings.

<sup>12</sup> Sundet 2007.

## *Gathering the Budget Data*

After completing the map of resource flows, PETS implementers have a complete list of budget sources to check, compare, and triangulate in order to provide an accurate picture of inefficiencies in the expenditure chain. The research teams tracking the flow of funds described in Figures 3 and 4 had to compile financial data from each of the sources of recipients appearing in the resource maps. Data for all links in the expenditure chain above the facility level will be secondary data, often obtained directly from the respective government office. Facility level data are generally gathered using survey instruments that the implementing team develops.

Gaining access to necessary data can require some amount of finesse. On the one hand, engaging with government officials from the beginning can help research teams overcome the problem of uncooperative government offices; on the other, it can serve as a signal to government officials that it is time to start keeping an extra set of budget books. In the experience of TAP-supported CSOs, however, when officials see that the study is being conducted out in the open and not under the radar of policymakers, they sometimes feel more comfortable providing researchers access to data (Box 3 has additional strategies from CSOs). However, in many cases, and despite all efforts, research teams are faced with the challenge of lacking access to data.

Gathering budget data itself, however, can also reveal interesting trends in public expenditure management. First, the challenges that civil society and research teams more generally may face in gaining access to data from government officials can demonstrate the lack of transparency that exists in the system and the need for a remedy to opaque budgeting procedures (Box 3). Second, without looking at the numbers, many implementers find from the process of collecting budget records that there is significant miscommunication between different levels of policymakers about budgeting responsibilities and funding requests. Although uncovering these problems is not a goal of PETS, it is an

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**Box 3.****Lack of Access to Data**

One of the major challenges that research teams face in conducting PETS is access to reliable data. This problem can occur in a number of different forms, including:

- Data exists but the government does not want to provide it to researchers
- Data exists but is of very poor quality and is unreliable or in an unusable format
- Data just does not exist (a particularly common problem at the facility level)

Centro de Análisis y Difusión de la Economía Paraguaya in Paraguay (CADEP) encountered all of these problems when it conducted a PETS of the primary education sector in 2008. CADEP found that policymakers were very hesitant to provide the researchers access to data. When CADEP was finally able to obtain data from the government and the schools in their sample, they found that the financial records (especially those kept by school administrators) did not provide adequate information on money received and money spent within schools in Paraguay.

Although these data problems prevented CADEP from completing a traditional expenditure tracking exercise, they did provide the research team with evidence of the significant problems with transparency of budget information in the country. The discovery also led CADEP to conclude that better tools were needed if civil society was to monitor the efficiency of public spending in educational facilities. At the current time, CADEP is working with active parent associations to develop ways to monitor transparency of budgeting within the schools and training modules to improve the financial record-keeping skills of school administrators.

important finding that research teams can use when developing policy recommendations and advocating for change after the completion of their studies. Moreover, sharing this type of information with governments can represent an easy-win for research teams; inefficiencies in the system may be easier to address than outright corruption. Additionally, an important consideration in implementing any PETS is timing. Ideally, data collection should include annual data and span a series of years for the sake of comparability and to maximize data quality. The key is to be certain to collect the necessary data before it is destroyed or archived in such a way that researchers will have a difficult time gaining access to it.

### *Preparing to Follow the Money*

PETS is an excellent tool designed not only to examine budget allocations, but more importantly to trace the flow of financial, human, and in-kind resources all the way down to frontline service providers such as teachers and health care workers. Mapping the landscape of budget allocations, spending, and receipts alone is only the first step in determining the quality and quantity of service delivery on the ground. We have begun to explore how PETS implementers can determine what budget data they need to collect and begin compiling that data; following the money generally requires the collection of secondary and primary data, including:

- National level budget data
- Sub-national level budget data
- Facility budget data
- Data on spending and service delivery on the ground

The latter two types of data, in particular, are generally collected through the use of facilities surveys, interviews, and direct observation. Once the research team has mapped resource flows and determined the necessary sources of data, it can prepare to follow the money by selecting a sample for the facility survey and designing questionnaires.

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## Selecting a Sample

While it would be valuable to identify all incidence of leakage in the selected program or system that the PETS is exploring, this is generally not feasible given the limited time and resources of the implementing team. Instead, research teams should select a sample of facilities that benefit from the program funds and could be suffering from inefficiencies and corruption in the program.

Selecting a statistically valid sample is a critical part of any PETS, and this is especially true for micro-level PETS such as those often undertaken by civil society organizations. Some basic power calculations can help inform research teams about how statistically significant their results will be; more subjects in a sample yields higher power. For civil society organizations, we suggest utilizing online resources and open-source programs that can help with the technical aspects of power calculations.<sup>13</sup>

PETS with small samples can still be informative, diagnose problems such as leakages, and point to possible ways to mitigate these problems. However, limiting the scope of the study decreases the likelihood that one or two non-typical facilities in a sample will drive the results, and allows the CSO to make more conclusive statements about problems with public spending. General rules for limiting the scope of a smaller study include:

- ***Select one type of facility for the sample.*** For small samples, the facilities included should be largely homogeneous but should exhibit one or two differing characteristics across which you are interested in comparing leakages. For example, if a research team wants to consider differences in leakages between urban and rural schools, then the team will need to select a sample containing both urban and rural schools. However, the sample schools should be otherwise homogeneous. For this reason, it is best to focus on one type of facility, for example primary schools, or primary health clinics.

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<sup>13</sup> See Annex C for Power Calculations Resources.

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- ***Limit your study population.*** A sample of 30 schools out of 2,000 schools nationwide is not very representative and does not reflect the country's schools as a whole. Further, if the schools are scattered randomly throughout the country, it is impossible to determine if an especially high leakage level in one school is an accurate representation of leakage in that school's district or if it is simply an extreme case or outlier. One solution may be to limit the study population by focusing on one district or province.

After determining the scope of the sample, research teams can undertake one of a number of sampling strategies to finalize their sample. The strategy chosen will depend on the scope of the sample, the research questions that the team develops, and the homogeneity of facilities within the population. The following are sampling strategies commonly used for PETS along with guidelines for when to use each strategy.

- ***Simple Random Sample.*** A simple random sample can be created by obtaining a complete list of facilities in your population (for example, all primary schools in a province) and randomly selecting facilities from that population. This strategy is only appropriate if the study population is relatively homogeneous and the sample is large relative to the population size.

*Example – A research team conducts a PETS that focuses on one district's secondary school scholarship program. They want to select a sample of 30 from the 75 primary schools in the district. The entire district is mostly rural and has similar literacy and enrollment rates.*

- ***Stratified Sample.*** This strategy is used when it is important to get facilities in a sample that are heterogeneous in one or more dimensions. To select a stratified sample, the population must first be broken into different sub-populations (or strata) and then facilities are randomly selected from each of the different sub-populations. The stratification should only be done on pre-determined or "exogenous" factors. This strategy is best used when you want to make a comparison across different types of facilities.
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*Example – A CSO wants to conduct a PETS on spending in primary health facilities in one large district. In particular, the organization hypothesizes that clinics in rural areas of the district experience lower levels of leakage than clinics in urban areas. After obtaining a list of all clinics in the district, the CSO breaks the list of facilities into rural and urban (two sub-populations). The team then randomly selects 15 facilities from the urban list and randomly selects 15 facilities from the rural list.*

- **Multistage Sample.** This strategy is often used for large populations (relative to the sample size). Generally, a multistage sample involves selecting a certain number of districts from a province or country (stage 1) and then selecting an equal number of facilities from each of the chosen districts (stage 2). Selection at each of these stages can be random or stratified. Frequently, the first stage is stratified and the second stage is randomized.

*Example – The project implementer is interested in comparing the level of secondary school leakages in districts with different socio-economic profiles in a province. In the first stage of sampling, the team undertakes a stratified sample of districts in the state. Dividing the list into “high income” and “low income” districts, they randomly select two districts from each sub-population. The team then randomly selects 15 secondary schools from each of the four districts.*

## Questionnaire Design

While much of the data necessary to track expenditures can be taken directly from budget records at various levels of government, data from other links in the expenditure chain (such as facilities) will require the research team to develop and administer questionnaires to gather information about the facilities contained in the study sample. Surveys can provide critical information, such as demographic data on health workers or teachers, as well as data related to schools or health clinics.

The questions that should be included in PETS questionnaires will be dictated by the research questions of the implementing team. A research matrix like the one described in Step 0 and found in Figure 5 can be help-

ful to teams in deciding what questions are necessary and even what types of questionnaires should be developed for the PETS. After determining the questions and corresponding variables of interest, the research team can determine what sources of data are needed to collect each variable. Taking the first variable as an example, data on what is budgeted will generally be available in budget records from each link in the expenditure chain, circumventing the need for a questionnaire to collect data on that variable. However, information on what was released to the facility level may require a survey targeting school or health center administrators while answering the question of how well targeted funds are may require information from beneficiaries about access to textbooks or pharmaceuticals.

Questions included in a facility questionnaire will generally fall into one of the six categories in Table 4. While every facility questionnaire need not include questions in each of the categories, some PETS instruments cover most or all of these issues. While research teams are well advised to limit the length of their survey so as to reduce the burden on respondents, implementers should also refer to the framework in Box 4 to ensure that they collect enough data to be able to answer the research questions that they pose.

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Table 4. Sample Research Matrix for PETS

Objectives	Questions	Variable of Interest	Data Source <sup>1</sup>	Method of Data Collection	Data Collection Tool
To understand the mechanism of resource allocation in the education sector at the state and LGC levels and identify major issues in budgetary allocation in 3 LGAs in Kaduna State	<p>What are the procedures with regard to resource allocation and transfers?</p> <p>What are the spending patterns at each level?</p>	<ul style="list-style-type: none"> <li>• What was budgeted?</li> <li>• What was approved?</li> <li>• What was released to the sector?</li> <li>• What are the methods of disbursement of funds at the two levels?</li> <li>• What is the funding gap to sector needs?</li> </ul>	State budget LGA budget SUBEB budget MOEP	Desk review	Extraction forms/ checklist
To identify problems with resource allocation and transfers	<p>What are the procedures with regard to resource transfers?</p> <p>What are the spending patterns at each level?</p>	<ul style="list-style-type: none"> <li>• Actual funds received at each level?</li> <li>• Efficiency in disbursement</li> <li>• Budget discipline?</li> <li>• Transparency and Accountability of funds at all levels?</li> <li>• Challenges and constraints</li> </ul>	Financial records of the tier  Finance and administration officials at the two levels	Extraction  In-depth interview	Extraction forms/ checklist  In-depth Interview schedule

<sup>1</sup> LGA – local government area; SUBEB – State Universal Education Board; MOEP – Ministry of Economic Planning  
From Research Matrix developed by ABANTU for Development based on materials presented by Delius Aslimwe, July 2009

**Box 4. Facilities Questionnaire Framework**

1. **Facility Characteristics** – This includes size of the facility, how many students or patients use the facility, what type of facility it is (non-profit, public, or private), range of services provided, and competition from other facilities. It may also be useful to collect some demographic information about the service users in the catchment area.
2. **Inputs** – This needs to be measured in monetary terms. In the case of health clinics wages, drugs and labor costs should be included here; in the case of schools, information on the head teacher and teachers should be included.
3. **Outputs** – Measurable outputs to calculate cost-efficiency include number of students enrolled in a school, number of patients seen, etc. In some cases test scores have been used to measure outputs in education. This was the case with a PETS conducted in Zambia.
4. **Quality** – In the case of PETS, quality can be measured through observation and through focus group discussions. Quality can apply to issues of a facility's structural quality and its procedural techniques, as well as to educational and health outcomes.
5. **Financing** – Information should be collected on financing. Where is the money coming from? Government, donors, user charges? Amounts and type should also be recorded.
6. **Institutional Mechanisms and System of Accountability** – Because different types of facilities operate under different types of accountability structures—for example, private schools are not beholden to the same rules that public schools are in many circumstances—it is important to collect data on management, reporting mechanisms, and record keeping.

Source: Adapted from Gauthier, 2006.

While developing a facility survey can be a daunting task for even a highly experienced research team, there are a few tips that implementers can follow to increase the likelihood of developing a clear and complete facility survey:

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- ***Utilize existing surveys.***<sup>14</sup> Research teams can benefit from questionnaires used in other countries and contexts. Many PETS have been conducted on a diverse set of topics and locations, and new implementers need not reinvent the wheel to utilize the methodology in their own context. However, individual country context and issues of political economy cannot be ignored. The PETS methodology, though easily duplicated, must be designed to answer questions specific to each situation and research question. For example, a PETS questionnaire designed to study leakage in the health sector will look very different than a questionnaire focusing on a textbook procurement program, even within the same country.
- ***Limit survey questions to those needed to answer PETS research questions.*** Research teams should remember that it is essential to collect a precise and rich set of data for analysis. That said, if too much data are collected it will become burdensome for research teams to sift through and pick out the pieces most important to their analysis. Furthermore, long questionnaires can become burdensome to respondents and result in high non-response rates. Be particularly wary of “matrix-style” questions such as enrollment by grade, by gender, by year, for the last five years. This type of question can quickly end in an unmanageable amount of data points. For example, 6 grades, x 2 genders, x 5 years = 60 data points. In this way a small table in a questionnaire could end up actually containing 60 questions!
- ***Develop different instruments for different respondents if necessary.*** Depending upon the research questions, the project team may decide that it will need to collect different information from different types of stakeholders. When different questions need to be asked of different sources, it can be helpful to create a number of modules for the PETS questionnaires to be administered to various officials. For example, one module may be created for teachers, whereas another module could be created for principals or head teachers of the same school. Research teams should also consider whether they need to obtain non-budget

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<sup>14</sup> The World Bank is currently developing an online database of PETS tools, including instruments.

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information from outside of the facilities. Some PETS include surveys for district level officials (to collect information on district procedures for distributing funds, for example), beneficiaries (to collect information on delays in obtaining resources, for example), and others. It can be useful for research teams to start with one survey and adapt it for other types of respondents. This strategy can help ensure comparability across different types of respondents.

- ***Piloting the surveys can prevent costly and timely problems with the questionnaires.*** Even experienced survey developers often find that questions that make sense in the office do not make sense or collect the right types of data in the field. For this reason, it is of paramount importance to first adequately design questionnaires in advance, then field test them, and finally address any issues that may arise. While a pilot of a survey can add an extra week or more to the PETS timeline, it can also identify problems with the survey that could ruin the entire study if not caught early on. Note that the research team should field test its survey at each level—government, facility, and individual—to be sure that modifications to the survey are made, if needed, and that the questions they have designed are indeed returning unbiased and viable responses. Ideally, a pilot should not be conducted with units (facilities) that will ultimately be included in the study. Additionally, it is essential that key researchers participate in the pilot so they are aware of how questions are being asked and how individuals respond. Field testing, like training, can be a time consuming process. However, bad data will unravel good analysis and make any type of policy recommendation infeasible.

### **Preparing to Follow the Money – Major Take-Aways**

- For small sample sizes, it is important to limit the scope of the population with respect to geographic coverage and heterogeneity of the facilities.
  - Facility surveys should be clear, should not include extraneous questions, and should be tested in the field before full PETS implementation.
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## Step 2. Collecting and Analyzing the Data

The first three steps outlined in this guidebook have dealt with preparing for PETS implementation. Research teams are well advised to put significant time and effort into these earlier steps; carefully articulating objectives, developing a strong work plan, and crafting a clear set of instruments will make the step of collecting and analyzing the data simpler and more successful. Once the research team has completed the preparatory steps, it can begin implementing the PETS itself, a step that involves several sub-steps including training the survey team, facility visits, entering and cleaning the data, and data analysis.

### *Recruiting and Training a Survey Team*

The first step in data collection is identifying a team of enumerators who understand the basics of the project and, preferably, have some experience with surveying. Many research teams face obstacles in administering the survey instruments themselves, including language and cultural barriers (often faced by external research organizations such as the World Bank) and small team size (a common obstacle faced by civil society organizations). As such, recruiting and training a team of temporary staff to serve as enumerators can be a cost-effective means of administering the survey.

The quality of the data collection team will directly impact the quality of data; therefore, teams should carefully consider whom they hire to conduct data collection and should undertake some spot-checking during the data collection process to ensure comparability and good standards.

Once the research team has identified and selected enumerators, the next step is to adequately train them. Training on the survey instruments can be a timely process, but its importance cannot be overstated. If enumerators are unfamiliar with the questions they are asking, the data they will be collecting faces the possibility of being unusable. If possible, enumerators should be involved in the piloting of the survey; this allows

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the research team to observe the enumerators before the survey is actually implemented.

### **Entering and Cleaning the Data**

While some research teams wait until completing the survey to enter the data into their statistical package of choice, there is a case to be made for entering data as they are collected. Although piloting a survey should uncover many of the potential problems with an instrument, additional problems with coding answers can arise when entering the data. Entering data can also uncover trends such as answer choices that should be added to the survey. Consider for example the following scenario:

*A research team is interested in how teachers deal with shortages of school supplies. In the teacher survey, one of the questions is “How do you deal with a shortage of textbooks?” and the answer choices are “Have students share textbooks,” “Ask parents to pay for additional textbooks,” “Randomly distribute textbooks,” and “Other.” After all of the data has been collected, the research team enters the data and finds that 80 percent of teachers respond “Other.”*

By entering the data as they came in, the research team could have uncovered after the first day of data collection that most teachers were answering “Other” and could have added alternative answer choices before collecting more responses. The enumerators would then only have to return to the first day’s respondents to ask the additional question. After entering the data, the research team can then begin sorting and cleaning the data. This involves creating summary statistics and removing any outlying data that could skew the analytical results.

Double data-entry is another method commonly used to ensure good quality data. In this case, data is entered once, and then a special program is used that allows you to enter the data again and checks each entry against the first. If there is a discrepancy, the program alerts the user and corrections can be made.

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## Data Analysis

The analysis phase is arguably the most important, yet often takes far less time than the actual data collection and preparation. Analysis includes the identification of leakages of funds, delays (where did money get held up?) and areas where problems with priorities may exist in the expenditure chain.

Leakages can be identified at each stage of the expenditure chain by comparing the amount disbursed by the higher link in the chain and the amount received by the lower link in the chain. In some cases, the research team may not be able to identify the exact source of leakage. However, the team should be able to at least find evidence of leakage. Take for example the case of a district education office (DEO) that provides funding for textbooks for the five primary schools in the district. If the district office keeps disaggregated budget records (Table 5), the research team should be able to identify the level of leakage for each school. Alternatively, if the district offices keep only aggregated budget records (Table 6), the research team could estimate the overall level of leakage between the office and schools but would be unable to calculate per-school leakage.

**Table 5. Disaggregated Education Data**

School	DEO Amt. Disbursed	School Amt. Received	Leakage
1	2,000	1,800	200
2	2,000	1,500	500
3	2,000	2,000	0
4	2,000	2,000	0
5	2,000	1,600	400
<b>TOTAL</b>			<b>1,100</b>

**Table 6. Aggregated Education Data**

School	DEO Amt. Disbursed	School Amt. Received	Leakage
1		1,800	
2		1,500	
3		2,000	
4		2,000	
5		1,600	
<b>TOTAL</b>	<b>10,000</b>	<b>8,900</b>	<b>1,100</b>

In addition to calculating leakages, the research team can also calculate the incidence of inefficiencies, such as delays in the arrival of funds or in-kind resources. It may also be possible to calculate correlations between inefficiencies and characteristics such as the location of the facility, characteristics of the facility proper, and other variables. While many analyses can be conducted, the research team should revisit its research objectives and overall project objectives when deciding how much time to spend on data analysis. PETS results can be interesting as stand-alone research results; however, implementers are well advised to remember that results can be more effective if they are used to identify issues, recommend solutions, and advocate for change.

#### **Data Collection and Analysis – Major Take-Aways**

- Well-trained enumerators and data entry personnel are essential to ensuring good data quality.
- Good quality data are the key to high quality, robust analysis.

### **Step 3. Identifying the Issues**

The preceding steps have provided the framework needed to identify and answer research questions regarding the efficiency of public spending and service delivery. However, in order to utilize research results to improve

policies, spending, and human development outcomes, the research team must translate numbers into actual answers. In particular, there are three types of questions that the quantitative results, combined with supporting qualitative evidence, can be used to answer:

- ***What are the problems?*** For example, leakage levels or delays in fund disbursement?
  - ***What are the trends in problem occurrence?*** These are the “who,” “where,” and “when” of the problems. Where is leakage higher, rural schools or urban schools? When are school meals most likely to be delayed in arriving at schools, early in the school year or later?
  - ***Why are these problems occurring?*** It can be difficult to answer this question, especially with quantitative data exclusively. However, insight into the reasons for inefficiencies such as leakage and delays can come from qualitative tools such as focus group discussions and key informant interviews. Researchers can choose to first conduct quantitative analysis, followed up by qualitative work designed to contextualize the quantitative results. Or, alternatively, researchers may start with qualitative tools, which can then inform the questionnaire, making the quantitative work more effective. Regardless of the order, a research team would ideally collect both types of evidence.
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**Box 5. Common Qualitative Tools to Supplement PETS Findings****Focus Group Discussions (FGDs)**

PETS implementers frequently incorporate focus group discussions with frontline service providers and other stakeholders to obtain information about the consequences and responses to problems that the PETS uncovers. In the case of the Center for Democratic Development, focus group discussions with representatives from parent teacher associations illuminated the reactions and experiences of parents with regard to absenteeism as well as verifying some of the information provided by teachers and head teachers about school management and financing.

**Key Informant Interviews**

In cases where the research team is interested in getting the insights of a small number of major stakeholders, key informant interviews can be a valuable tool. Many implementers will conduct interviews with key government officials or opinion leaders in the community after a preliminary analysis of the data has revealed certain issues with public spending and service delivery. Researchers can then ask stakeholders a small number of targeted questions to reveal why these issues may be occurring.

**Exit Surveys**

Although the PETS methodology is developed to follow money to the “ground,” many PETS only follow money to the frontline service provider. However, stopping at this level misses a critical link in the chain: service users. Although service users often do not handle public spending (such as salaries), these stakeholders can provide valuable insight into the efficiency of public spending. Expenditure tracking exercises targeting health facilities in particular often employ exit surveys for clients leaving a government-run facility. Users can be asked targeted questions regarding their perceptions: Was a health center well-stocked? How long did they have to wait to see a doctor?

The results of data analysis can be used to identify (1) delays and/or leakage and (2) trends in these issues. Once leakage or other inefficiencies have

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been identified and the research team can point out some of the situations in which the problems are most prevalent, the implementers then must face the “so what” issue. While numbers are interesting, they also leave policymakers and beneficiaries alike with the two obvious questions: “Why are these problems occurring?” and “How can we solve them?” (a question investigated further in the next section). Combining quantitative results from teacher surveys with data gleaned from qualitative techniques such as focus group discussions, the research team can begin pinpointing possible causes of leakage and reasons for the trends uncovered.

Particularly for small scale PETS, quantitative methods generally identify the problems but fail to explain the underlying issues. However, qualitative methods alone do not provide the statistical evidence that decision-makers seek before they are willing to move away from the status quo. CSOs in particular can bolster their evidence from standard PETS methods by incorporating into their research design qualitative tools such as those presented in Table 4. By utilizing qualitative approaches in addition to standard PETS methods, CSOs can be better positioned to disseminate their research results as well as ensure that the results reach not only service users, but also frontline service providers.

## Step 4. **Recommending Solutions**

The final question that PETS must tackle is the question of how to remedy the problems uncovered in the previous four steps. Large-scale PETS take on the difficult task of evaluating the effectiveness of public spending for an entire sector, and the recommendations that come out of the studies often reflect this. Without focusing on specific components of education spending for example, project implementers generally identify system-wide problems and recommend solutions that reform the wider public expenditure management system. While these recommendations are often valuable, they are not always as attractive to policymakers, especially when considering contextual political constraints. On the other hand, a PETS that focuses on a pharmaceutical procurement program

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can identify very specific problems and develop tangible and frequently inexpensive solutions to these problems. When presented with this type of recommendation by a credible research team, policymakers are much more likely to be amenable to implementing the proposed solution.

From the issues identified, PETS implementers can now develop specific recommendations. This part of the process is project-specific however. For CSOs conducting these studies, it is important to keep a few things in mind. Civil society organizations can be well-positioned (depending on country context); these organizations can target recommendations to specific audiences and take advantage of their local status to influence policy at a level that large organizations may not be able to accomplish. Recommendations can be targeted not only at the central Government and ministries, but also at local government, service users, service providers, and stakeholders-at-large. Research teams and CSOs should target their recommendations according to the audience. In an effort to not only disseminate the PETS evidence but also recommend solutions to identified problems, different strategies can be employed, ranging from press-releases to media campaigns. Recommendations do not necessarily have to be exclusively policy-based; some of the best recommendations can call for action related to specifically identified issues of leakage or delays, for example. Finally, CSOs and research teams can advantageously highlight qualitative findings to examine the underlying issues of leakages, delays, problems of priorities and service delivery issues.

The best recommendations are:

- ***Feasible*** – They have taken into account the specific context of the project or program the PETS is targeting and are in the realm of possibility given budget, time, human resources and political constraints.
  - ***Concrete*** – They are concise and specific, while also being targeted and understandable to both policymakers and stakeholders.
  - ***Inexpensive*** – They contrast the expense of a remedy with the benefit of implementing it (i.e., a recommendation may be expensive, but it could represent an inexpensive alternative to the amount of money be-
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ing lost). Presenting recommendations based on cost-effectiveness can be a particularly powerful tool in exacting policy change.

### **Box 6. The Value of Actionable Recommendations**

Of the many public expenditure analyses that have been conducted over the past several decades, many have proposed major over-arching reforms of the entire financial and budgeting system. While such reforms might be effective if implemented, they are also expensive in terms of time and money. As such, they are inherently unattractive to policymakers who are dealing with limited resources and, in some cases, short terms in office. Further, sometimes a tangible and easily-implementable recommendation can be far more effective in improving public spending. The Institute for Policy Analysis and Research (IPAR) in Kenya found this to be true in its 2008 study of the efficiency of the Secondary Education Bursary Scheme. Triangulating data from the constituency bursary fund committees and secondary schools in Nairobi province, the organization uncovered significant inefficiencies with the Secondary Education Bursary Fund. For example, it was discovered that 20 percent of schools were receiving bursaries for students no longer enrolled. In 27 percent of schools, students were receiving multiple bursaries totaling more than the school fees. This inefficiency was largely due to lack of communication between the government-run bursary scheme and private schemes in Kenya. Rather than recommend that the government invest more money into the program, the organization made the recommendation that all bursary funds (government and private) use standardized records, making it easier to compare recipients from the different funds. Further, IPAR made the low-cost recommendation that bursary funds share information on proposed beneficiaries to avoid double or triple bursary allocations to one student.

## **Step 5. Dissemination and Advocacy**

While many rigorous and statistically valid PETS studies have been completed, many have failed to have any impact on the efficiency of public

spending in education, health, and other social sectors. One possible reason for this failure is that many PETS implementers have overlooked the final and critical step: disseminating findings and advocating for change. Instead of looking at PETS as a means to an end, they have looked at PETS as an isolated research project. Other implementers do attempt to disseminate findings from the PETS but approach dissemination as an afterthought. Rather than beginning the study with a plan for how they will use the results to push for positive change, they only bring policy-makers and stakeholders into the discussion after they have designed the study, implemented the PETS, and compiled results.

While a communications strategy will not be the same for a think tank as for a grassroots advocacy organization, there are several best practices that should be followed by all PETS implementers:

- ***Identify target audiences before starting the PETS.*** This issue was covered in Step 0 of the guidebook, however its importance cannot be overstated. All PETS and related studies should be undertaken with the goals of (1) identifying problems and potential solutions and (2) changing the actions and decisions of stakeholders to improve the functioning of budgeting in the target sector or program. Both of these goals are better achieved if research teams design the PETS and the communications plan simultaneously. First, identifying stakeholders to whom the organization wants to communicate results allows the team to better design the study and ascertain what potential problems are of the most interest to these stakeholders. Second, stakeholders are more likely to be receptive to recommendations and advocacy if they have some amount of ownership in the PETS. The best way for an organization to create this sense of ownership is to engage with stakeholders from the start of the project.
  - ***Develop a dissemination and advocacy plan before starting the PETS.*** In addition to identifying target audiences before beginning the study, it is important to develop a communications plan before implementing the PETS. Knowing what its researchers want to do with the results of a PETS can help in designing survey instruments, sample strategy, and
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collection of supporting qualitative data. Further, PETS data are most impactful immediately after they have been compiled and analyzed; having a communications plan before starting the study allows teams to immediately dive into their advocacy and dissemination work once they have preliminary results.

- ***Think about the impact you hope to have rather than the activities you want to undertake.*** Communications plans can fail because the people who develop them take it for granted that activities such as press conferences and policy briefs will raise awareness and spark dialogue about public expenditure topics. While well-implemented meetings and publications can affect policy and policymaker actions, these strategies are not guaranteed to have such an effect. Rather than begin with the communications activities or products, research teams and CSOs should start with their advocacy goals. Is the goal to change policies in an effort to lower leakage in a textbook financing program? Is it to improve the ability of school administrators to record the allocation and receipt of textbook funds? Or is it to develop ways for students to track how many textbooks are getting to their classrooms and compare their findings with students in nearby schools? By determining the goals of the PETS first, organizations are better equipped to determine the best means to achieve the desired impact.

Keeping these best practices in mind, the research team can undertake the three stages of dissemination and advocacy: planning, evidence-based action, and evaluation.<sup>15</sup>

### **Planning the Dissemination and Advocacy Strategy**

The most successful CSOs and research teams begin by determining the goals of their study and related advocacy. Goals for PETS generally consist of changing the behavior or actions of participants in the public expenditure process to improve the efficiency of spending and service delivery. For example, take the case of a CSO tracking spending on common

<sup>15</sup> Sandilya, Indira. Presentation. Delhi, India. July 2009.

pharmaceuticals destined for primary health centers in one district in India. The ultimate goal of the CSO is to improve the health of Indians in this district, and the intermediate goal is to improve the efficiency of the purchase and allocation of pharmaceuticals in the district. Project-specific goals, however, could take many forms. Examples include (but are not limited to):

- To increase government oversight of the distribution of pharmaceuticals
- To improve the system used by facilities in reporting their pharmaceutical needs to district offices
- To provide a way for service users to report problems in accessing pharmaceuticals to government officials
- To develop a method for doctors and pharmacists to track whether all of the drugs that were allocated to their facilities actually arrived

#### **Box 7.**

##### **Overcoming the Challenge of the Lack of Public Interest in Budgeting**

The budget is one of the most important tools that a government has to impact the lives of its constituents. However, corruption and inefficiencies in the budget sector do not tend to get as much attention or generate as much as interest as other development problems. Civil society organizations are well-positioned to increase public interest in budget problems by using creative dissemination methods and tools. An increase in public interest can, in turn, boost participation in the budget process and improve transparency. The Centre for Budget and Policy Studies (CBPS) in India offers an example. CBPS often uses films about governance and public expenditure management to introduce people to the ways in which budgeting has a direct impact on their daily lives. Methods and tools such as cartoons, posters, and videos can all be used to increase interest in budgeting.

Each of these goals targets a different audience and requires different strategies and tools for ensuring the desired change. And each of these goals may require the research team to partner with different actors, in-

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cluding the media and other civil society organizations. It is important for teams to consider these issues early in the process of implementing the PETS. For each goal, the organization should answer the following questions:

- ***Who is/are the target audience(s)?*** The efficiency of public spending and service delivery is in the hands of many different actors, and thus improving the impact of spending and service delivery can be achieved by changing the actions and decisions of an array of people. The most effective communications strategies will be tailored to the agents they are trying to affect. In general, though, results should *always be brought back and presented to study participants*, particularly frontline service providers such as teachers and medical professionals that were part of the study sample, as well as to the communities that they serve.
  - ***What are the best products and/or activities to develop in order to achieve this goal?*** While a press conference may be a good way to influence the dialogue between policymakers, it is probably not a good way to reach citizens in rural communities. Likewise, posters in village health clinics may not be an effective way to carry messages to government officials. Rather than choosing the traditional communications and advocacy products, CSOs and research teams should think critically and creatively about what tools will catch the attention of their target audience and drive home their messages.
  - ***Who are the strategic partners for these products and activities?*** While CSOs have the advantage of being based in-country, they may not always have eyes and ears in the schools, clinics, or government offices that they are trying to improve. Rather than expect to carry out an entire communications strategy on their own, CSOs should choose their partners with a view to maximizing the impact of their work. Potential partners might include the media, other CSOs, think tanks, service providers, etc.
  - ***How will the research team measure success in achieving this goal?*** If a CSO or research team hopes to have a sustainable impact on public spending and service delivery, it needs to devise a means of measuring the effectiveness of its advocacy and communications strategies.
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- *Who will the CSO or research team partner with to achieve results?* In addition to directing activities toward key stakeholders, many CSOs find it valuable to partner with key stakeholders in undertaking their dissemination and advocacy activities. Most commonly, CSOs partner with other civil society organizations to disseminate findings. However, some research teams are able to find progressive individuals in government who gain an interest in the study and are willing to push the recommendations and results among their government colleagues (see Box 8).

### **Undertaking Evidence-Based Action**

After developing the communications plan and compiling the results of the study to use in advocacy work, organizations and research teams actually undertake actions and produce products to encourage the changes that they hope to see in social sector spending and service delivery. There is no one method or product that is best to undertake; a good action plan will be tailored to the audience and goals of the project. Rather than attempt to develop an exhaustive list of communications tools, we highlight in Annex D some of the tools and strategies developed by past grantees of the Transparency and Accountability Program.

### **Evaluation of Communications and Advocacy Work**

A final step is needed to answer the “so what” question and to ascertain whether a PETS has had any policy impact. An effective way to improve the likelihood of having an impact with evidence-based action related to a PETS is to critically evaluate the success of each advocacy tool and activity.

Evaluating communications work is not a simple activity, but it can be very useful in determining whether to continue engaging and spending money on a particular strategy or to test a new approach. For each activity, the team should have not only a goal that it is trying to achieve, but also a way to measure its success in achieving that goal. For example, a re-

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**Box 8.****Building Government Ownership for Results**

For obvious reasons, policymakers (particularly those who are corrupt) have a disincentive to provide data and support to research teams conducting PETS. Even those who are not involved in the leakage of funds may be concerned that a study of public expenditure could uncover inefficiencies or problems in the system that could increase public scrutiny of those policymakers. While this is a common challenge, civil society organizations have come up with creative ways of dealing with such resistance from policymakers.

One example is the Center for the Implementation of Public Policies Promoting Equity and Growth (CIPPEC) in Argentina. With a long track record of producing high-quality policy research, CIPPEC's work is frequently cited and used by the Government in policymaking decisions. However, as an independent think tank, CIPPEC recognizes that it has an obligation to publicize findings that may in fact point out flaws in the Government, an obligation that could make the Government less inclined to consider its policy research and recommendations. One strategy that CIPPEC uses to deal with this conflict is to provide policymakers with first access to study results before going public with them. CIPPEC still goes to the media with any results (positive or negative), but fosters a constructive relationship with officials by preventing them from being blind-sided by the results.

Another example is the Centre for Budget and Policy Studies (CBPS) in India. Many politicians are not economists, accountants, or people with financial or budgeting experience. As such, CBPS produces products that inform not only the general public, but also government officials. By providing training and guides to policymakers on budget practices and processes, CBPS raises its visibility with government officials.

search team with the goal of improving the ability of parent associations to monitor textbook procurement may choose to develop a training guide for parent associations on monitoring delays. The team could measure the success in achieving this goal in a number of ways, for example by counting

the number of schools that request copies of the training guide or the number of complaints to government officials about lack of textbooks from parent associations that have access to the guide. Information such as this can be useful for a research team or organization that is deciding whether to increase its production of the guide, develop a new guide for measuring textbook procurement delays, or abandon this tool in favor of a new advocacy strategy.

#### **Disseminate and Advocate – Major Take-Aways**

- Develop an advocacy and communications plan before beginning your project, and involve target audiences from the outset
- Think critically and creatively about what advocacy tools and strategies are most likely to help you reach your impact goals
- Develop ways to measure your communication strategy's impact
- Always bring your results back to frontline service providers and others that participated in your study
- Think about how you can make the impact of your short-term study sustainable by developing tools and policies that can be adopted by people outside of the research team

## **Conclusions**

- When designed with the goal of looking toward solutions, PETS can be a particularly valuable tool. The objective of the research should go beyond the simple identification of a problem; its aim should be to understand potential causes and recommend viable, long-term, and sustainable solutions. This is especially true when an effort is made to design a research plan that includes targeted efforts at long-term results dissemination to government officials, service providers, service users, and community-based stakeholders.
  - PETS are most successful if they fit the structure and characteristics of the organizations conducting them; civil society's comparative advantage is not the same as that of large international organizations like
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the World Bank. Rather than take on an analysis of a country's entire education sector, small CSOs can make large gains by narrowing the analytical focus, or by leveraging their own resources with those of other analytically strong organizations. Most importantly, small-scale analytical PETS can be just as effective in promoting policy change as large-scale national surveys.

- Prospective planning of research, from the survey design to final results dissemination plans is essential. Understanding the big picture, and working with stakeholders—government, service providers, service users, and community leaders—will help to inform the process and increase the likelihood that the research results inform policy and improve sector service delivery and governance.
  - Quantitative analysis associated with PETS is only a starting point. Incorporating qualitative work such as focus group discussions and targeted interviews can increase the robustness of research results. Ideally, research teams can incorporate qualitative work into survey design, as well as follow data analysis to better understand the results of the research. However, research teams and civil society organizations conducting this type of research must be realistic about what PETS can and cannot do; PETS can tell us that pharmaceuticals are unavailable at a health facility, or that some percentage of a capitation grant is not reaching schools, but they cannot tell us conclusively why student outcomes are low or explain why health indicators are below average.
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## Annex A. World Bank PETS

Country	Survey Type	Year of Report	Sector(s)	Resource Flow Monitored	Sample Size
Albania	PETS	2004	Health	Different kinds of expenditure (salaries, supplies, administrative costs, etc.)	The scope of the study includes the TRHA region, Dürres, and a "control" municipality outside of Tirana and Dürres.
<a href="http://www-wbweb.worldbank.org/prem/prmps/publicsector/PETS%20Studies/Albania/Albania%20Health%20PETS.pdf">http://www-wbweb.worldbank.org/prem/prmps/publicsector/PETS%20Studies/Albania/Albania%20Health%20PETS.pdf</a>					
Albania	PETS	2004	Education	Block grants, funds	20 municipalities and communes, and 201 schools
<a href="http://www-wbweb.worldbank.org/prem/prmps/publicsector/PETS%20Studies/Albania/Albania%20PETS%20Education.pdf">http://www-wbweb.worldbank.org/prem/prmps/publicsector/PETS%20Studies/Albania/Albania%20PETS%20Education.pdf</a>					
Brazil	PETS	2006	Health		Six states, 17 municipalities in those six states, and 49 hospitals and 20 outpatient units in the sampled municipalities
<a href="http://intresources.worldbank.org/PUBLICSECTORANDGOVERNANCE/Resources/BrazilPETS.pdf">http://intresources.worldbank.org/PUBLICSECTORANDGOVERNANCE/Resources/BrazilPETS.pdf</a>					
Cambodia	PETS		Health	Expenditures in government health facilities	17 Provincial Health Departments (PHD), 30 Operational Districts (OD), 200 Health Centers (HC), and 29 Referral Hospitals (RH)
<a href="http://intresources.worldbank.org/PUBLICSECTORANDGOVERNANCE/Resources/CambodiaHealthPETSJan15.pdf">http://intresources.worldbank.org/PUBLICSECTORANDGOVERNANCE/Resources/CambodiaHealthPETSJan15.pdf</a>					

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**Annex A. World Bank PETS** *(Continued)*

Country	Survey Type	Year of Report	Sector(s)	Resource Flow Monitored	Sample Size
Cambodia	PETS	2005	Education	School funding	Two hundred schools in seven provinces
<a href="http://www-wbweb.worldbank.org/prem/prmps/publicsector/Pets%20studies/Cambodia-education%20pets%20final.pdf">http://www-wbweb.worldbank.org/prem/prmps/publicsector/Pets%20studies/Cambodia-education%20pets%20final.pdf</a>					
Cambodia	PETS	2008	Health	Public health sector expenditures	17 Provincial Health Departments, 30 Operational Districts, 200 Health Centers and Health Posts, 29 Referral Hospitals
Cambodia Health PETS: Public Expenditure Tracking Report. East Asia and Pacific Region. World Bank. Feb. 2008.					
Chad	PETS	2010	Education		
Report forthcoming					
Honduras	PER	2001	Poverty reduction and fiscal sustainability	Government spending	
<a href="http://www-wbweb.worldbank.org/prem/prmps/publicsector/PETS%20studies/Honduras/Honduras.pdf">http://www-wbweb.worldbank.org/prem/prmps/publicsector/PETS%20studies/Honduras/Honduras.pdf</a>					

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**Annex A. World Bank PETS** (Continued)

Country	Survey Type	Year of Report	Sector(s)	Resource Flow Monitored	Sample Size
Indonesia	QSDS	1998	Education	To gather information about the magnitude of the effect of the crisis on education and on whom the impact was strongest as part of a larger effort to monitor the impact of the crisis on social sectors	600 primary and junior secondary schools in five provinces
<a href="http://intresources.worldbank.org/PUBLICSECTORANDGOVERNANCE/Resources/survey5.pdf">http://intresources.worldbank.org/PUBLICSECTORANDGOVERNANCE/Resources/survey5.pdf</a>					
Indonesia	QSDS	2001	Education		600 primary and junior secondary schools in five provinces
<a href="http://intresources.worldbank.org/PUBLICSECTORANDGOVERNANCE/Resources/600schoolsurveyreport.pdf">http://intresources.worldbank.org/PUBLICSECTORANDGOVERNANCE/Resources/600schoolsurveyreport.pdf</a>					
Lao PDR	PETS	2008	Education and Health	Financial flows such as salary payments	17 provinces, 54 districts, and 252 villages
<a href="http://intresources.worldbank.org/PUBLICSECTORANDGOVERNANCE/Resources/285741-1239741640129/6023127-1240595002422/LaoPDR.pdf">http://intresources.worldbank.org/PUBLICSECTORANDGOVERNANCE/Resources/285741-1239741640129/6023127-1240595002422/LaoPDR.pdf</a>					

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**Annex A. World Bank PETS** (Continued)

Country	Survey Type	Year of Report	Sector(s)	Resource Flow Monitored	Sample Size
Madagascar	PETS, QSDS	2003	Education	IPPTE, CRESED	First survey: 36 districts and 326 primary schools. Second survey: 185 primary schools were surveyed, about half of the schools included in the first survey. Third survey: 24 district administrations (out of 111)
Gauthier, Bernard. PETS-QSDS in Sub-Saharan Africa: A Stocktaking Study. 2006.					
Mongolia	PETS	2006	Education		118 schools in urban and rural areas
<a href="http://www-wbweb.worldbank.org/prem/prmps/publicsector/Pets%20Studies/Mongolia/MongoliaSept2006.pdf">http://www-wbweb.worldbank.org/prem/prmps/publicsector/Pets%20Studies/Mongolia/MongoliaSept2006.pdf</a>					
Mozambique	PETS, QSDS	2004	Health		11 Provinces (out of 11), 35 Districts, 90 Public primary health centers, 167 workers, 679 patients
Gauthier, Bernard. PETS-QSDS in Sub-Saharan Africa: A Stocktaking Study. 2006.					

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## Annex A. World Bank PETS (Continued)

Country	Survey Type	Year of Report	Sector(s)	Resource Flow Monitored	Sample Size
Niger	PETS	2008	Education and Health	Selected government expenditures in education (textbooks, notebooks and drawing books for students) and in health (food expenditure and hospital supplies, and essential medicines)	See page 7 of report
<a href="http://intresources.worldbank.org/PUBLICSECTORANDGOVERNANCE/Resources/285741-1239741640129/6023127-1240595002422/NigerVo11.pdf">http://intresources.worldbank.org/PUBLICSECTORANDGOVERNANCE/Resources/285741-1239741640129/6023127-1240595002422/NigerVo11.pdf</a>					
Nigeria	PETS, QSDS	2004	Health		30 local government, 252 health facilities, 700 staff
Gauthier, Bernard. PETS-QSDS in Sub-Saharan Africa: A Stocktaking Study. 2006.					
Papua New Guinea	PESD	2004	Public spending and service delivery issues, mainly education sector	School facilities and environment, financial flow of resources, and teachers, administration and students.	214 schools in 19 districts across 8 provinces
<a href="http://www-wbweb.worldbank.org/prem/prmps/publicsector/PETS%20studies/PNG/PNG.pdf">http://www-wbweb.worldbank.org/prem/prmps/publicsector/PETS%20studies/PNG/PNG.pdf</a>					

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**Annex A. World Bank PETS** (Continued)

Country	Survey Type	Year of Report	Sector(s)	Resource Flow Monitored	Sample Size
Tajikistan	PETS	2008	Health	Government expenditures	66 rayons and 12 cities
<a href="http://intresources.worldbank.org/PUBLICSECTORANDGOVERNANCE/Resources/285741-1239741640129/6023127-1240595002422/TajikistanPPER.pdf">http://intresources.worldbank.org/PUBLICSECTORANDGOVERNANCE/Resources/285741-1239741640129/6023127-1240595002422/TajikistanPPER.pdf</a>					
Uganda	PETS	1996	Education and Health	Education: capitation grants, Health: non-wage expenditures	Education: 18 districts (out of 39), 250 public primary schools. Health: 19 districts, 100 health facilities
Gauthier, Bernard. PETS-QSDS in Sub-Saharan Africa: A Stocktaking Study. 2006.					
Uganda	QSDS	2003	Health	Financing, drugs, vaccines, and supplies	10 District administrations (out of 45), 155 (public, private for profit and non profit) health facilities, 1617 patients
Gauthier, Bernard. PETS-QSDS in Sub-Saharan Africa: A Stocktaking Study. 2006.					
Yemen	QSDS	2006	Education	Three complementary studies examine budget practices, teacher and school resource management issues and teacher absenteeism.	16 schools in 12 districts from three governorates and another in 240 schools in four governorates
<a href="http://www-wbweb.worldbank.org/prem/prmps/publicsector/PETS%20Studies/Yemen/Yemen%20Final%20Report%20Edited.pdf">http://www-wbweb.worldbank.org/prem/prmps/publicsector/PETS%20Studies/Yemen/Yemen%20Final%20Report%20Edited.pdf</a>					

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## Annex A. World Bank PETS (Continued)

Country	Survey Type	Year of Report	Sector(s)	Resource Flow Monitored	Sample Size
Yemen	PETS	2005	Education		
Ghabayen, Rafat. "Public Expenditure Tracking Survey: Education Sector – Republic of Yemen" Dec 2005.					
Zambia	PETS, QSDS	2004	Education	Non-wage funding for basic education (fixed-school grant, discretionary non-wage grant program)	33 districts, 182 primary schools (grades 1-9)
Gauthier, Bernard. PETS-QSDS in Sub-Saharan Africa: A Stocktaking Study. 2006.					
Zambia	PETS	2009	Health		
Forthcoming					

## Annex B. CSO-led PETS\*\*

Country	Organization	Survey Type	Year of Report	Sector(s)	Resource Flow Monitored	Sample Size
Albania*	2A Consortium	PETS	2008	Health	Budgeting system that funds Albanian health care	47 health care facilities (31 primary health care centers, 6 hospitals, and 10 local government units)
<a href="http://tap.resultsfordevelopment.org/resources/improving-public-expenditure-effectiveness-health-sector">http://tap.resultsfordevelopment.org/resources/improving-public-expenditure-effectiveness-health-sector</a>						
Bangladesh*	Concern for Environmental Development and Research	QSDS	2010	Health	Expenditures of government HIV/AIDS prevention program in Bangladesh	26 Drop-In-Centers (DIC) in Bangladesh
Expected June 2010						
Ghana*	Center for Democratic Development	PETS	2010	Education	Disbursement and usage of the Capitation Grant in public primary schools	30 public basic primary schools in Ghana
Expected June 2010						

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## Annex B. CSO-led PETS\*\* (Continued)

Country	Organization	Survey Type	Year of Report	Sector(s)	Resource Flow Monitored	Sample Size
Guatemala*	National Center for Economic Research	PETS	2008	Education	Expenditures for government programs aimed at getting poorer students to go to and stay in school, specifically six programs intended to lower the cost and increase the quality of education—by providing scholarships, free school meals, milk, textbooks, and supplies, and teaching kits	41 schools—20 urban and 21 rural—around Guatemala City
<a href="http://tap.resultsfordevelopment.org/resources/expenditure-tracking-improve-effectiveness-public-education-guatemala">http://tap.resultsfordevelopment.org/resources/expenditure-tracking-improve-effectiveness-public-education-guatemala</a>						
India*	Indo-Dutch Project Management Society	PETS	2008	Health	Flow of resources to selected Primary Health Centres	30 rural Primary Health Centers in two Karnataka districts, ChamaraJanagar (CR Nagar) and Bellary
<a href="http://tap.resultsfordevelopment.org/resources/following-health-delivery-trail">http://tap.resultsfordevelopment.org/resources/following-health-delivery-trail</a>						
India*	Public Health Foundation of India	PETS	2010	Health	Flow of funding for drug financing, procurement and distribution	60 facilities in 32 districts (two states)

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**Annex B. CSO-led PETS\*\*** (Continued)

Country	Organization	Survey Type	Year of Report	Sector(s)	Resource Flow Monitored	Sample Size
Expected June 2010						
Indonesia*	Centre for Regional Information and Studies	PETS	2008, 2010	Education	2008: Seven financing schemes that fund Indonesia's decentralized education system—three that fund operating expenses and four that fund investments. 2010: Tracking schools' real expenditures of BOS Funding	2008: 38 elementary and secondary primary schools in two Indonesian regions: Serang Regency, in Central Java, and Gresik Regency, in East Java. 2010: 30 junior high schools (public school) in Tangerang Regency, Tangerang City, and Magelang Regency
<a href="http://tap.resultsfordevelopment.org/resources/education-budget-efficiently-spent">http://tap.resultsfordevelopment.org/resources/education-budget-efficiently-spent</a>						
Indonesia*	Bandung Institute of Governance Studies	PETS	2010	Education	School Operational Aid (BOS) Program	30 schools in Bandung City (urban) and Kabupaten Bandung Barat (rural)
Expected June 2010						

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## Annex B. CSO-led PETS\*\* (Continued)

Country	Organization	Survey Type	Year of Report	Sector(s)	Resource Flow Monitored	Sample Size
Kenya*	Institute for Policy Analysis and Research	PETS	2008, 2010	Education	Administration of Kenya's Secondary Education Bursary Scheme	The 2008 study included 48 schools in all eight constituencies (districts) in Nairobi: Makadara, Embakasi, Kamukunji, Starehe, Westlands, Lang'ata, Dagoretti and Kasarani.  The 2010 study surveyed 202 schools, in the remaining 202 constituencies in Kenya.
<a href="http://tap.resultsfordevelopment.org/resources/expenditure-tracking-secondary-education-bursary-scheme-kenya">http://tap.resultsfordevelopment.org/resources/expenditure-tracking-secondary-education-bursary-scheme-kenya</a>						
Malawi	Civil Society Coalition for Quality Basic Education	PETS	Ongoing	Education	Education Funding	500 schools (10% of the total number of schools), as well as district assemblies, district education offices, education supplies units, and teacher training colleges.
Information on this study available at <a href="http://www.internationalbudget.org/resources/expenditure/index.htm">http://www.internationalbudget.org/resources/expenditure/index.htm</a>						
Malawi*	Community Based Monitoring Project	PETS	2010	Education	Teacher salary administration—flow of funds from Treasury to Primary Schools	300 teachers—100 teachers from each of the regions of Malawi

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### Annex B. CSO-led PETS\*\* (Continued)

Country	Organization	Survey Type	Year of Report	Sector(s)	Resource Flow Monitored	Sample Size
Expected June 2010						
Moldova*	Institute for Development and Social Initiatives	PETS	2008	Education	Public budgetary spending for the pre-university schools	30 schools, selected on the basis of: geographic location, size, type of institution (primary, gymnasias, lyceum)
<a href="http://tap.resultsfordevelopment.org/resources/targeting-education-policy-review-decentralized-public-spending">http://tap.resultsfordevelopment.org/resources/targeting-education-policy-review-decentralized-public-spending</a>						
Mongolia	Open Society Forum	PETS	2004	Education	Mongolia general education funding, divided into two separate funds—operational expenses (salaries) based on number of students, and heating, electricity, and water... based on past expenditures at the school level.	2005 study with WB and OSF: 118 schools from 21 aimags and UB—1416 respondents—were sampled
Information on this study available from Ramkumar, “Civil Society Experiences in Monitoring Government Budgets” and <a href="http://www.opensocietyforum.mn/en/index.php?sel=news&amp;menu_id=229&amp;obj_id=690">http://www.opensocietyforum.mn/en/index.php?sel=news&amp;menu_id=229&amp;obj_id=690</a>						

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## Annex B. CSO-led PETS\*\* (Continued)

Country	Organization	Survey Type	Year of Report	Sector(s)	Resource Flow Monitored	Sample Size
Nigeria*	ABANTU for Development	PETS	2010	Education	Tracking the flow of education funds from states to local governments (LGAs) and from LGAs to schools.	30 schools were selected from the three senatorial Districts—one urban, two rural.
Expected June 2010						
Pakistan*	Institute of Social and Policy Sciences	PETS	2010	Education	Tracking budgetary allocations and disbursements at district and school level	40 primary and secondary schools in two districts, as well as a beneficiary survey of 600 households.
Expected June 2010						
Paraguay*	Centro de Análisis y Difusión de la Economía Paraguaya	PETS	2008	Education	Public funding for primary schools	30 primary schools in the Central region of Paraguay
<a href="http://itap.resultsforddevelopment.org/resources/education-expenditures-budget-tracking-analysis-thirty-paraguayan-educational-institutions">http://itap.resultsforddevelopment.org/resources/education-expenditures-budget-tracking-analysis-thirty-paraguayan-educational-institutions</a>						

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**Annex B. CSO-led PETS\*\*** (Continued)

Country	Organization	Survey Type	Year of Report	Sector(s)	Resource Flow Monitored	Sample Size
Peru*	Research Center of the University of the Pacific	PETS	2008	Health	Budgeting for health sector in Metropolitan Lima—From Ministry of Economy, to the Ministry of Health and intermediate level agencies and then to frontline providers. Specifically focuses on National Strategies for Vaccination and the Tuberculosis Prevention and Control	14 health facilities, with surveys administered to 100 health personnel.
<a href="http://tap.resultsfordevelopment.org/resources/route-expenditure-and-decision-making-health-sector">http://tap.resultsfordevelopment.org/resources/route-expenditure-and-decision-making-health-sector</a>						
Romania*	Romanian Academic Society	PETS	2008	Education	Public funding for education in decentralized counties	32 schools in four counties of Romania (randomly selected from eight counties participating in a pilot decentralization strategy by the government of Romania)
<a href="http://tap.resultsfordevelopment.org/resources/effectiveness-and-efficiency-public-expenditure-romanian-education-system">http://tap.resultsfordevelopment.org/resources/effectiveness-and-efficiency-public-expenditure-romanian-education-system</a>						

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**Annex B. CSO-led PETS\*\*** (Continued)

Country	Organization	Survey Type	Year of Report	Sector(s)	Resource Flow Monitored	Sample Size
South Africa*	Public Service Accountability Monitor	QSDS	2010	Education	Tracking funds for the School Nutrition Programme (SNP) in the Eastern Cape Province of South Africa in the Grahamstown education district	30 public primary schools within the Grahamstown Education District
Expected June 2010						
Tanzania	Research on Poverty Alleviation	PETS	2001, 2004	Health and Education	2001 Study monitored discretionary funds of local councils. 2004 study monitored funds earmarked for primary schools, comprised of a capitation grant for recurring costs and development grant for other costs such as textbooks, school maintenance and teacher training	Unknown
Information on this study available from Ramkumar, "Civil Society Experiences in Monitoring Government Budgets"						

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### Annex B. CSO-led PETS\*\* (Continued)

Country	Organization	Survey Type	Year of Report	Sector(s)	Resource Flow Monitored	Sample Size
Uganda*	Coalition for Health Promotion and Social Development	PETS	2010	Health	Tracking funds for essential medicines from the Ministry of Finance to front line service providers	41 health centers were randomly sampled from the two districts—one urban, one rural
Expected June 2010						
Zambia	Zambia National Education Coalition	PETS	2005	Education	Education Funding to see if funds allocated for specific programs were reaching schools and whether guidelines for fund utilization were being met.	Unknown

Information on this study available from Ramkumar, “Civil Society Experiences in Monitoring Government Budgets”

\*TAP grantees

\*\* There may be other CSOs that have completed PETS exercises; however, this table encompasses all of those known by the authors.

### **Annex C. Resources for Power Calculations**

Lenth, R. V. (2006-9). Java Applets for Power and Sample Size [Computer software]. Retrieved *April 12, 2010*, from <http://www.stat.uiowa.edu/~rlenth/Power>

<http://statpages.org/#Power>

<http://www.statsoft.com/textbook/power-analysis/>

<http://www.raosoft.com/samplesize.html>

[http://www.dssresearch.com/toolkit/spcalc/power\\_p1.asp](http://www.dssresearch.com/toolkit/spcalc/power_p1.asp)



### Annex D. Communications Tools from Past TAP-Supported Organizations

Audience	Organization	Research Topic	Communications Tool/Strategy	Goals
<b>Policymakers</b>	<ul style="list-style-type: none"> <li>National Center for Economic Research (Guatemala)</li> <li>Romanian Academic Society</li> <li>Research Center of the University of the Pacific (Peru)</li> </ul>	<ul style="list-style-type: none"> <li>Expenditure tracking of primary school programs</li> <li>Education PETS</li> <li>Expenditure tracking of TB and Immunization Programs</li> </ul>	<ul style="list-style-type: none"> <li><b>Individual meetings</b> with targeted high-level officials to share their findings and recommendations</li> <li><b>Policy briefs</b> directed towards policymakers at different levels of government</li> <li><b>Seminar</b> highlighting study findings and asking policymakers to speak on these issues</li> </ul>	To inform policymakers of findings and potential solutions, to give them an opportunity (and a need) to respond to the public
<b>Public/Service Users</b>	<ul style="list-style-type: none"> <li>National Center for Economic Research (Guatemala)</li> <li>Centro de Análisis y Difusión de la Economía Paraguaya (Paraguay)</li> </ul>	<ul style="list-style-type: none"> <li>Expenditure tracking of primary school programs</li> <li>Education PETS</li> </ul>	<ul style="list-style-type: none"> <li><b>Cartoon strip</b> explaining the results of the PETS to students, teachers, and parents</li> <li><b>Posters</b> (displayed in schools) outlining the findings of the PETS and what students can do to improve transparency of school funds</li> <li>Meetings with parent associations to develop <b>tools to monitor</b> facility-level spending</li> </ul>	To inform the public of findings, to empower them and give them tools to better monitor spending and service delivery

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### Annex D. Communications Tools from Past TAP-Supported Organizations (Continued)

Audience	Organization	Research Topic	Communications Tool/Strategy	Goals
NGOs and CSOs	<ul style="list-style-type: none"> <li>Indo-Dutch Project Management Society (India)</li> <li>Centre for Budget and Policy Studies (India)</li> </ul>	<ul style="list-style-type: none"> <li>Primary Health Expenditure Tracking</li> <li>Budget analysis for health and education sectors</li> </ul>	<ul style="list-style-type: none"> <li>Developing networks of like-minded NGOs to share findings and strategies on these issues</li> <li>Documentary film screenings presenting the budget process in state of Karnataka and examples of knowledgeable and effective government officials and incompetent ones</li> </ul>	To provide NGOs with information that they can use in their own grassroots advocacy or lobbying work
Media	<ul style="list-style-type: none"> <li>Center for Democratic Development (Ghana)</li> </ul>	<ul style="list-style-type: none"> <li>Teacher Absenteeism Tracking</li> </ul>	<ul style="list-style-type: none"> <li>Toolkit and press packet for journalists to use to interview presidential and parliamentary candidates about the problems and potential solutions to teacher absenteeism</li> </ul>	While the media itself is not generally a target audience, CSOs can provide tools to the media to help disseminate their findings to a wider audience

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