National course on:
Public Expenditure Tracking Surveys

(Kampala, Uganda: 09-13 March 2009)

United Nations
Educational, Scientific and
Cultural Organization

International Institute
for Educational Planning

A national course on "*Public expenditure tracking surveys (PETS)*" was organised jointly by the International Institute for Educational Planning (IIEP-UNESCO) and the Economic Policy Research Centre (EPRC), from 09 to 13 March 2009 in Kampala.

This course aimed at introducing participants to the methods of PETS; allowing them to practically implement a PETS through various exercises; and discussing how this methodology can be applied to the situation in the public sectors where they work.

This report includes the various materials that were prepared and used for the course, in particular: the outlines of the presentations by the faculty and the exercises. The appendix contains the list of participants.

TABLE OF CONTENTS

WORKSHOP ON PUBLIC EXPENDITURE TRACKING SURVEYS (PETS)

AGENDA

Kampala, 09 – 13 March 2009

***Monday 9 March:* General introduction**		
a.m.	Welcome Introduction to the course Introduction of course participants	Sarah Ssewanyana, EPRC, Fred Muhumuza, Ministry of Finance, and Muriel Poisson, IIEP
	Lecture: Overview on corruption	Jacques Hallak [JH] & Muriel Poisson [MP]
	Lunch	
p.m.	*Lecture:* PETS: the experience of Uganda – Where do we stand? What is ahead?	Nyende Magidu, EPRC
	Lecture: An overview of PETS – Rationale, design, data collection, analysis, dissemination, impact	[JH] & [MP]
***Tuesday 10 March:* PETS in Uganda**		
a.m.	*Lecture*: Objectives and issues for the PETS	[JH] & [MP]
	Group work # 1 on objectives and issues for the PETS in Uganda (by sectors)	National team
	Lunch	
p.m.	*Lecture:* Structure of decision making and mechanisms of financing	[JH] & [MP]
	Group work # 2 on resource flow and allocation in Uganda (by sectors)	National team
***Wednesday 11 March:* PETS Preparation**		
a.m.	*Lecture* : Sampling	[JH] & [MP]
	Group work # 3 on sampling	[JH] & [MP]
	Lunch	
p.m.	*Lecture*: Questionnaire design for data management	[JH] & [MP]
	Group work # 4 on questionnaire design	[JH] & [MP]

Thursday 12 March: **Implementing data collection**		
a.m.	*Lecture*: Organizing and implementing the surveys (including data entry and cleaning)	[JH] & [MP]
	Group work #5 on assessing local capacity of personnel and estimating requirements	[JH] & [MP]
	Lunch	
p.m.	Group work # 6 on implementing surveys and monitoring	[JH] & [MP]
	Lecture: Data analysis	[JH] & [MP]
Friday 13 March: **Analysis, reporting and dissemination**		
a.m.	Group work # 7 on data analysis	[JH] & [MP]
	Lecture: Information reporting and dissemination	[JH] & [MP]
	Lunch	
p.m.	Group work # 8 on reporting and dissemination	[JH] & [MP]
	Conclusion: What follow-up for Uganda?	EPRC
	Evaluation and conclusion	EPRC & [MP]

OPENING REMARKS

Sarah Ssewanyana

EPRC & PETS

- On behalf of EPRC and on my own behalf, let me take this opportunity to welcome you to this important 5-day technical workshop on Public Expenditure Tracking Surveys (PETS).
- Capacity building and strengthening is one of EPRC's activities. And this is the 2nd technical workshop in 2009 after the successful training on micro level data analysis in Jan 2009.
- This workshop brings together policy makers, practitioners, researchers, academia and civil society organizations.

Why PETS?

- In the recent past, government has re-emphasized its commitment to improve efficiency and effectiveness of its public spending. And PETS is one of the effective tools to promote efficiency and effectiveness in public spending.
- We need to track the flow of resources through the various layers of government, down to the service facilities in order to determine how much of the originally allocated resources reach each level, and how long they take to get there. We need to identify the location and extent of impediments to resource flows.

Why PETS (contd.)

- Yet local capacity to make use of such tools has not kept pace with increasing demand for value for money from development partners and politicians. We feel that improving local capacity to adopt such tools among policymakers will yield significant benefits in terms of better policy making.
- Our aim is to contribute to improved efficiency of public spending and accountability
  - Training and research

Recent analytical works using PETS

- PETS on MAAIF completed in December 2008
- On-going drug tracking study

Expectations

- At the end of the training, participants will
  - Be introduced to the PETS methodology
  - Have understood the strengthens and shortcomings of PETS
  - Have reviewed numerous case studies which illustrate practical application
  - Able to employ the tool in our works to improve on the efficiency of public spending
- Participants will be able to keep time

Workshop logistics

- Meals & teas will be served
- Non-EPRC participants will be given transport refund on the last day

Course on PETS
Kampala, March 2009

OVERVIEW ON CORRUPTION

Jacques Hallak & Muriel Poisson

INTRODUCTION: RECENT EXAMPLES OF CORRUPTION

- *Algeria:* "judges are no angels"
- *Hong Kong (China):* for 76% of companies, "competitors bribe!"
- *Ghana:* illegal school fees and ghost personnel
- *France:* violation of tendering processes
- *Italy:* poor transparency in construction sector
- *Pakistan:* fictitious schools, teachers, pupils
- *USA:* many bogus e-mail colleges

OUTLINE OF THE PRESENTATION

I. What is corruption?

II. Why tackle corruption now?

III. What opportunities for corruption?

IV. How to assess corruption?

I. WHAT IS CORRUPTION?

1. GENERAL DEFINITION OF CORRUPTION

- Definition used for all public sectors:

  "*The use of public office for private gains*"
  - diversion of funds from govt accounts
  - favouritism in personnel appointments
- Definition used for public service (education, health, water supply, etc.):

  "*The systematic use of public office for private benefit whose impact is significant on access to, quality of, or equity in service delivery*"
- Where to draw the line between corrupt and honest behaviour?

2. LEVELS OF CORRUPTION

- Grand corruption: high-level officials and politicians
  - very large amounts of money
  - high economic impact
  - *example:* procurement of irrigation project
- Petty corruption: public officers at all levels
  - many small amounts of money
  - severe social impact, especially for the poor
  - *example:* undue fees charged for drugs distribution
- Continuum from grand to petty corruption
  - *example:* teaching profession in some Latin American countries

3. CAUSES OF CORRUPTION

- Low salaries of public officials, judges, teachers, etc.
- Effort to extend status or power
- Complexity and lack of accessibility to rules
- Discretionary power/monopoly
- Poor governance/supervision at all levels
- Lack of absorption/management capacity
- Poor public information on govt decisions
- Lack of transparency of stakeholders
- Weakening of ethical norms

4. DEFINITIONS OF CORRUPT PRACTICES

Practices	***Summary definitions***
Bribe, Pay-off	*Undue payment given to get a favour*
Bypass of criteria	*Non-use of legal criteria*
Capture, Leakage	*Illegal use of public resources*
Diversion of funds	*Illegal use of public resources*
Embezzlement	*Theft of public resources*
Misappropriation	*Illegal use of public resources*
Favouritism	*Illegal preference given to someone*
Fraud	*Any kind of corrupt practice*
Ghost worker	*Draws salary but does not work*
Nepotism	*Illegal preference given to a relative*
Traffic of influence	*Influencing a public decision for a bribe*

5. MAGNITUDE OF CORRUPTION

- Corruption costs the developing world about $80 billion a year (= total of all development assistance)
- Two nation level estimates of corruption:
  - *Mexico:* around 15 percent of GNP today
  - *India:* around 20 percent of GDP in 1980
- The magnitude of corruption is usually measured by the way it is perceived
  - Corruption Perception Index (CPI) published annually by Transparency International

II. WHY TACKLE CORRUPTION NOW?

1. INTERNATIONAL SETTING

- International conventions against corruption:
  - OECD Convention on combating bribery of foreign public officials, 1997
  - UN Convention against corruption, 2003
- NORAD "Good Governance and Anti-corruption Action Plan 2000-2001"
- Good governance and anti-corruption programmes developed by the World Bank
- Global Coalition for Africa: focus on corruption (http://www.gcacma.org/Corruption.htm)

2. GROWING AWARENESS

- Wide diffusion of Ti Index*
- Links between corruption / poverty , development and democracy established
- Coalitions of NGOs against corruption (youth movements)
- Role of mass media

* 2008 CORRUPTION PERCEPTIONS INDEX

Country	High-Low Range
Denmark	9.1 – 9.4
Botswana	5.2 – 6.4
South Africa	4.5 – 5.1
Namibia	3.8 – 5.1
Lesotho	2.3 – 3.8
Tanzania	2.5 – 3.3
Zambia	2.5 – 3.0
Ethiopia	2.2 – 2.9
Uganda	2.2 – 3.0
Kenya	1.9 – 2.4
Zimbabwe	1.5 – 2.1
Sudan	1.5 – 1.7
Somalia	0.5 – 1.4

Source: Transparency International, 2008

3. SECTORAL DIMENSIONS

- High rate of return for investment in infrastructures
  - links between growth of GNP per capita and good road infrastructures
- The case for more transparency and accountability:
  - pressure for more decentralized and locally-based health delivery services
- Development of ICTs (diploma mills)
- Strategies of modernization of agricultures

III. WHAT OPPORTUNITIES FOR CORRUPTION?

1. MAJOR PRACTICES OF CORRUPTION

Areas	Corrupt practices
Public procurement (building, roads, equipment, etc.)*	• Fraud in public tendering • Embezzlement
Staff management	• Favouritism • Nepotism • Bribes
Personnel behaviour**	• "Ghost personnel" • Bribes
Information systems	• Manipulating data • Selecting/suppressing information
Finance***	• Transgressing rules/procedures • Inflation of costs and activities • Opacity of flow • Embezzlement of funds

* BUILDINGS AND EQUIPMENT: PROCUREMENT IN GHANA

"This report highlights a broad array of poor procedures and practices throughout the tendering and management process, which have been the cause of many Ghana's public procurement problems, and where leakages in public procurement occur and substantial savings could be realized. More of the procedures have now been corrected by the Public Procurement Act (PPA) and the Standard Tender and Contract Documents".

In addition, recommendations include record keeping, putting in place an effective sanction system and enforcing codes of conduct for civil servants…

Source: World Bank, 2004.

* MATERIALS: TEXTBOOKS IN THE PHILIPPINES

Unauthorized reprints		*Overpricing*		*Unapproved books*		*Total*	
Quantity	*Amount**	*Quantity*	*Amount**	*Quantity*	*Amount**	*Quantity*	*Amount**
3,140,794	234,471	139,125	2,043	1,578,102	177,980	4,858,021	414,496

* In thousand Philippines pesos (50 pesos = 1 US$)

Source: Unpublished document

** PERSONNEL MANAGEMENT IN SOUTH ASIA

Source of unethical behaviour	Very serious	Serious	Less serious	Not at all a source
Abuses in human resource management	India, Bangladesh, Nepal	X	X	X
Abuses in supply and purchase of materials	X	India, Bangladesh, Nepal	X	X
Conduct of school inspection	X	Nepal	India, Bangladesh	X
School admissions	X	Nepal	Bangladesh	India
School examinations and qualifications	X	Nepal	India, Bangladesh	X
Embezzlement/ mismanagement of school finance	Bangladesh, Nepal	India	X	X
Staff attendance/absenteeism	X	Bangladesh, Nepal	India	X
Poor human relations among staff in the school	X	Nepal	India, Bangladesh	X
Private tuition by teachers	India, Bangladesh	Nepal	X	X

Source: Khandelwal, 2006 (IIEP)

*** FINANCE: MULTI FACETTED OPPORTUNITIES

- *Bangladesh:* Illegal fees in eight districts amount to about BDT 20 million
- *State of Victoria (Australia):* $ 7.7 million of error in the financing of education, detected through audit in 2002
- *United Kingdom:* Embezzlement of a school budget by a head teacher amounting to £ 500 000 in one LEA in 2003

IV. HOW TO ASSESS CORRUPTION?

1. FOUR MYTHS

- Corruption cannot be measured
- Subjective data vague not linked to reality
- Subjective data unreliable
- Only hard data helps

2. COLLECTION OF "SUBJECTIVE" DATA

- Corruption Perception Index (CPI):
  - degree to which corruption is perceived to exist among public officials and politicians
  - reflects perception of business people, academics and risk analysts
  - composite index, drawing on 17 different polls from 13 independent institutions
  - CPI=10: highly clean; 0: highly corrupt
- Participatory diagnosis (3 cities in Ukraine)
- Other perception surveys

3. COLLECTION OF "OBJECTIVE" DATA

- Collection of objective data through:
- Censuses/ Inventories (population, land, hydraulic potentials, health centers, schools, universities)
- Audits (sector/institutions/staff/financial)
- Risk analysis
- Survey approaches
  - Quantitative service delivery surveys (QSDS)
  - Public expenditure tracking surveys (PETS)

4. DIFFERENT APPROACHES TO SURVEYS

I. Fact finding

Objective data (Census, audit*, risk analysis)

QSDS**
PETS

II. 'Perception'

Subjective data

(Report cards***)

Participatory assessment

- *Organizational* (management, central & local level)
- *Human resources* ('ghost' staff, absenteeism, recruitment)
- *Financing* (financial statements of an activity/ entity, budget, fund raising)
- *Procurement* (tendering)

➡ *Importance of this course…*

*AUDIT

- Diagnosis/audits/assessments central in all areas and levels:
  - institutional level
  - functional level
  - resource level
- Key tools to analyze whether a project has been a 'success story' or not in avoiding corruption
- Key tools before/after project implementation, to detect:
  - if the 'numbers' in the budgets are incorrect
  - If the use of resources is in accordance with the rules

** QSDS IN THE EDUCATION SECTOR

- To measure qualitative aspects in the education sector ('ghost teachers', absenteeism, etc.)
- Data collected from unannounced visits to selected schools to physically verify teacher presence
- Teachers who are not found in the school area 10-15 minutes after the arrival of the inspectors are considered as absent

*** REPORT CARDS

- Participatory surveys that provide quantitative feedback on user perceptions on the quality, adequacy and efficiency of public services
- Instrument to exact public accountability through the extensive media coverage and civil society advocacy that accompanies the process

Citizen Report Card	Community Score Card
• Unit - household/individual Meant for macro level Main output is demand side data on performance and actual scores Implementation time longer (3-6 months) Feedback later, through media • Information collected through questionnaires	• Unit - Community Meant for local level Emphasis on immediate feedback and accountability, less on actual data Implementation time short (3-6 weeks) • Information collected through focus group discussions

PUBLIC EXPENDITURE TRACKING SURVEY: THE APPLICATION IN UGANDA

Economic Policy Research Centre

March 2009

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Background

- PETS was launched in order to expose the anomalies in the process of flow of funds and to gauge the degree to which funds trickle down to their intended destinations.
- PETS consolidates information from front service providers (quantity or input) and

March 2009

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Conti;

- Quality and performance (output) of service delivery systems. Such information provides a platform for enquiry into leakage of funds due to corruption or private gain.
- PETS has a multilevel focus with the service providers being the key unit of analysis.
- PETS was first introduced in Uganda in 1996

March 2009

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Rationale

- There was a need to employ this diagnostic tool because despite the fact that government budgetary allocations were public, there was unavailability of information on actual public spending.
- Therefore questions were raised:
- Were the funds spent as planned?
- Was the expenditure effective and to what degree?
- What has the performance of service delivery in terms of quality?

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Application of PTS in Uganda

- In Uganda, PETS was deployed in education, health and recently in agriculture sector.
- The motivation for such an effort in education was the fact that though the official reports indicated that there was a substantial increase in public spending on education, primary school enrolment did not show any improvement.
- PETS focussed on primary education and health in its efforts to compare budget allocation to actual spending through the different levels of government, including frontline service delivery units in both primary schools and clinics.

February 2009

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Conti;

- E.g. the survey indicated that on average, only 13% of per student non-wage funds provided by the central government reached the schools during 1991-1995. Eighty seven percent was misused either for personal gain or for purposes not intended for education.
- Roughly 70% of the schools did not receive anything.
- Such results are similar in other sectors.

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- Where do we stand?
- We have had PETS in the three sectors as mentioned and the main focus among others included:
  - How much of the planned funds reach the beneficiary institutions?
  - Does increased allocation of funds translate into increased output?
  - Budgetary and allocation efficiency.
  - Efficiency and effectiveness in public spending.
- We note that currently flow of resources under education sector has improved greatly i.e. 80%-90% now reach the planned destination

March 2009

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Conti;

- What is ahead?
- Currently there are already surveys being undertaken and others yet to be implemented.
- E.g. Drug tracking in the health sector
- Flow of funds under the infrastructure provision.
- Others include: health, water and sanitation and education.

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Why train in PETS

- In recent past, government has re-emphasised its commitment to improve efficiency and effectiveness of its public spending.
- PETS is one of the effective tools to enable us to achieve the above.
- Local capacity to make use of such tools has not kept pace with increasing demand for value for money from development partners and politicians.
- Thus UNESCO and EPRC is responding to the demands and challenges.

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Conti;

THANK YOU

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Course on PETS
Kampala, March 2009

AN OVERVIEW OF PETS

Jacques Hallak & Muriel Poisson

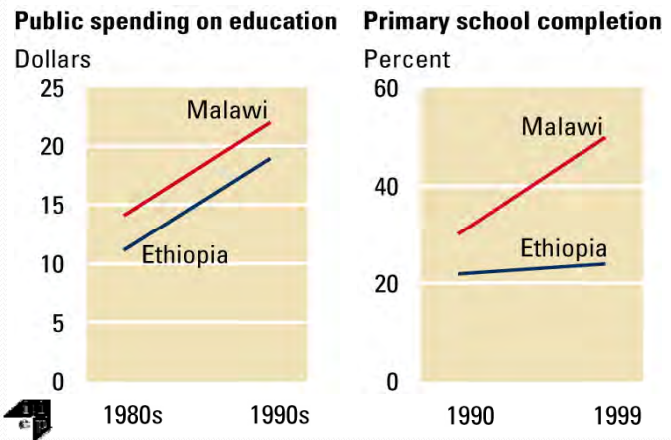
OUTLINE OF THE PRESENTATION

I. Improving service delivery
II. Scope of PETS
III. Design and implementation of PETS
IV. Use of PETS

I. IMPROVING SERVICE DELIVERY

1. PUBLIC SPENDING AND OUTCOMES (EDUCATION)

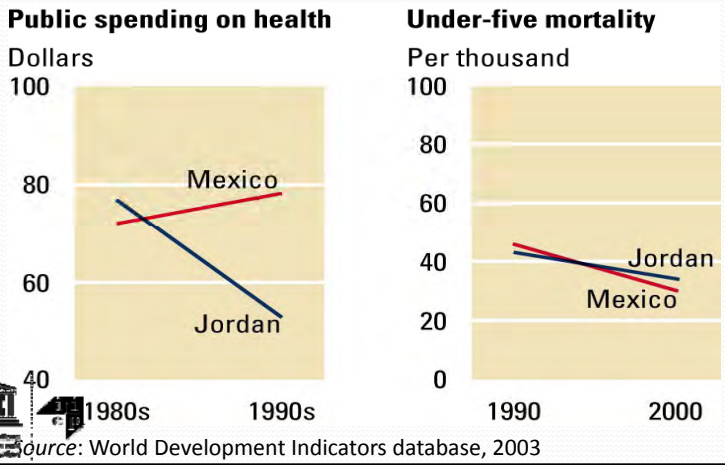
Similar changes in public spending can be associated with vastly different changes in outcomes…



Source: World Development Indicators database, 2003

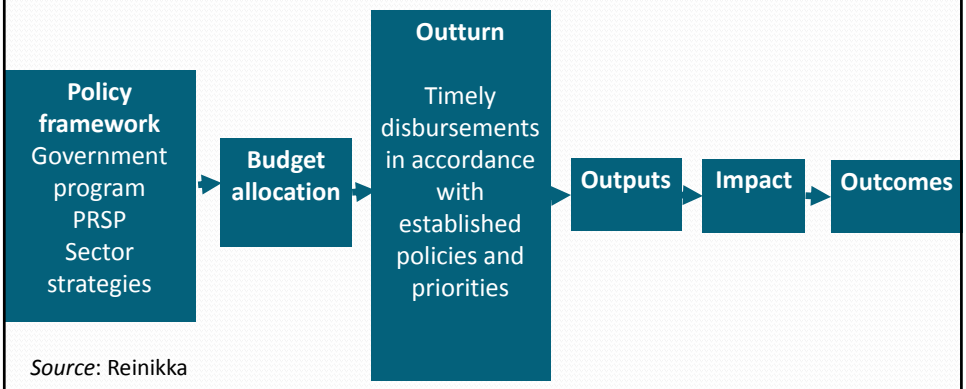
1. PUBLIC SPENDING AND OUTCOMES (HEALTH)

…and vastly different changes in spending can be associated with similar changes in outcomes.



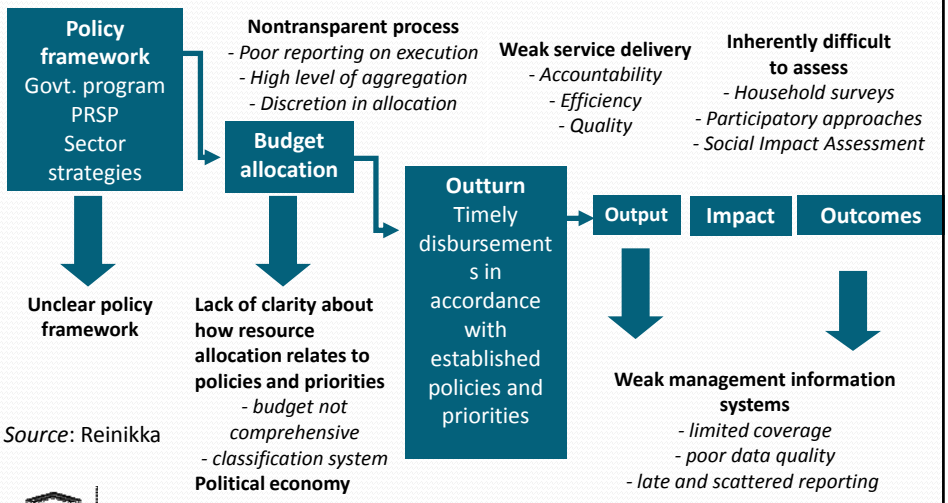
Source: World Development Indicators database, 2003

2. THE IDEAL SITUATION…



Source: Reinikka

3. A MORE TYPICAL SITUATION…



Source: Reinikka

PUBLIC EXPENDITURE TRACKING SURVEY (PETS)
QUANTITATIVE SERVICE DELIVERY SURVEY (QSDS)

GHANA'S EDUCATION BUDGET (% OF GDP)

	2003	2004
Budget provision	4.42 %	4.46 %
Actual expenditure	5.58 %	5.88 %

Source: CDD Ghana, 2006.

4. HOW ARE SERVICES FAILING POOR PEOPLE?

- Public spending benefits the rich more than the poor
  - benefit incidence analysis of public spending for diagnosis
- Money fails to reach frontline service providers
  - captured by administrative layers or politicians
  - public expenditure tracking surveys (PETS)
- Poor quality services
  - Quantitative Service Delivery Survey (QSDS): e.g. absenteeism
- Lack of demand by households

GHANA: HOW ARE SERVICES FAILING POOR PEOPLE?

Education Characteristics by Poverty Quintile							
	NATIONAL	RURAL			URBAN		
	National	All Rural	Very Poor Rural	Non-Poor Rural	All Urban	Very Poor Urban	Non-Poor Urban
Literacy rate >15yrs	48	40	24	62	63	40	85
Time to reach the nearest primary school % greater than 30 minutes.							
	8	10	14	6	3	6	1
Time to reach the nearest secondary school % greater than 30 minutes.							
	65	77	86	69	42	57	27
Satisfaction with school attended							
Primary							
No Problem	39	30	18	43	61	49	76
Lack of books/supplies	37	42	45	36	25	36	14
Poor teaching	6	8	10	5	3	4	3
Lack of teachers & overcrowding	16	21	32	13	6	11	3
Facilities in bad condition	32	40	50	31	13	15	8

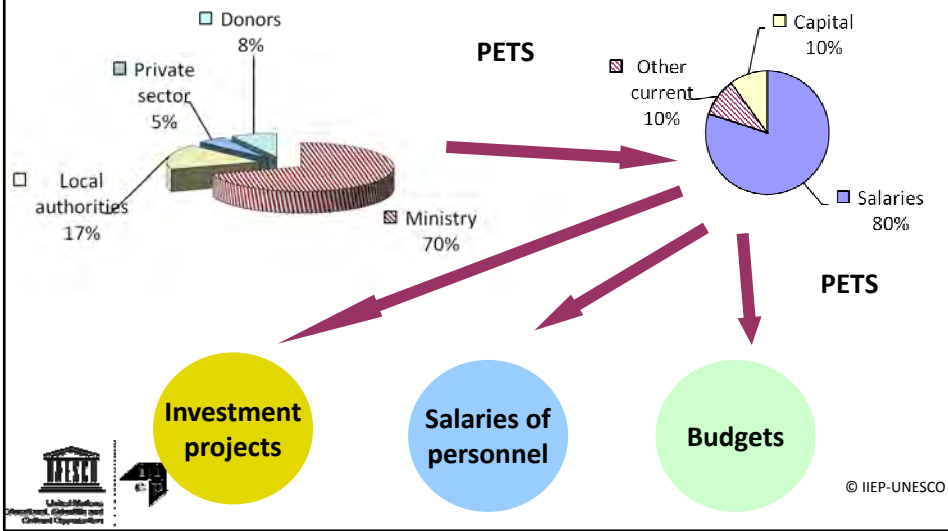
Source: World Bank, 2006

II. SCOPE OF PETS

1. SCOPE OF PETS: FINANCIAL FLOWS

Sources of funding

Types of expenditures



2. SCOPE OF PETS: MONITORING SALARY COSTS

- Difficulties in tracking wages:
  - *Peru:* wrongdoing probably more serious in the area of payroll and personnel (> 90% of educational resources)
- Other approaches (**QSDS**) being used
  - *Honduras:* ghost teachers estimated at 5% (2000)
- When leakage in salaries take place at an intermediate stage: need for **perception surveys** (Brazil)
- Yet salary costs closely linked to staff management

3. SCOPE OF PETS: MONITORING CAPITAL COSTS

- No tracking of expenditures on buildings: need for transparent procurement
- **Procurement** for buildings: **audit** of procedures, firms involved, agreements reached, service and products delivered
- Example: reform of construction contracts by Lesotho:
  - clear guidelines/building standards
  - opening of all construction projects to public tender
  - criteria for the evaluation of contractors
  - construction inspection team
  - involvement of the community as "watchdogs"

III. DESIGN AND IMPLEMENTATION OF PETS

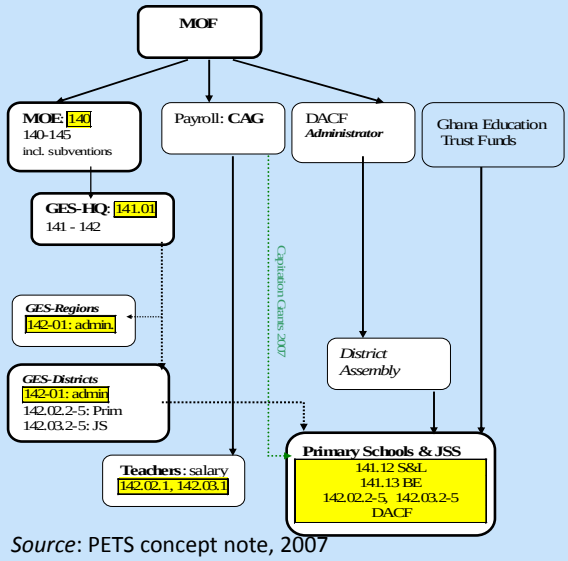
1. THE SCOPE OF PETS

- Funding of economic and social sectors come from various sources and take various routes
- Flows of funds in the public sector are governed by different allocation rules, administrative processes, recording/ accounting procedures
- Tracking should ne initiated by the identification, analysis of the nature and characteristics of the various flows in order to grasp their role and contribution to the service provider's resources.

2. CHARACTERISTICS OF PETS

- Diagnostic or monitoring tool to understand problems in budget execution
  - delays/predictability of public funding
  - leakage/shortfalls in public funding
  - discretion in allocation of resources
- Data collected from different levels of government, including service delivery units*
- Reliance on record reviews, but also interviews of head teachers, health facility managers, water supply centers, road construction supervisors, etc.
- Variation in design depending on perceived problems, country, and sector

* FLOWS OF BASIC EDUCATION FUNDS IN GHANA



Source: PETS concept note, 2007

3. PREPARATION OF PETS

- Stakeholder consultations and scope
  - purpose of the study
  - who is in charge of what? How do resources flow?
  - only 1 or 2 sectors at a time
- Rapid data assessment
  - usually needed from frontline units (schools ,clinics,)
  - simple questionnaire can be useful
- Questionnaire design for PETS
  - each level needs its own instrument
  - recorded data to be cross-checked against the same information from another source

4. SAMPLING

- Census/inventory for sampling frame, but often census not available
- How to overcome?
  - draw sampling units randomly from an existing set
  - enumerate all private and/or community facilities in these sampling units
  - randomly draw private and/or community facilities from the obtained enumeration list
- Stratified random sample (region, urban-rural, ownership, etc.)
- Links to other surveys can complicate sample design

5. DESIGN OF QUESTIONNAIRES

- Data kept by facilities for own use are typically most reliable
- Questionnaires for:
  - frontline officer
  - local governments
  - relevant central government ministries
- Data sheets for the same
- Training, field testing, and data entry
  - requires significant time (several weeks each activity)
  - local participation essential

6. SURVEY IMPLEMENTATION

- After translation, re-testing of instruments in the field
- Data management
- Important to reduce time required by data cleaning after the survey
- Take into account in the instrument design
- CSpro the preferred data entry program (http://www.census.gov/ipc/www/cspro)
- Survey implementation (1-3 months)
- Analysis, report, and dissemination

IV. USE OF PETS

1. USE OF PETS FOR DIFFERENT STAKEHOLDERS

- Use of PETS for **managers and policy-makers**:
  - to understand how funds are actually spent
  - to locate and quantify fund leakages
  - to analyse the allocation of funds to different levels
  - to initiate reforms aimed at fighting fund leakage
- Use of PETS for **researchers**:
  - to observe the results of service providers
  - to inform policymakers and parents on how budgets are used to provide services
  - to identify staff incentives and their consequences
  - to demonstrate political aspects of financing

2. ANALYSIS OF PETS RESULTS

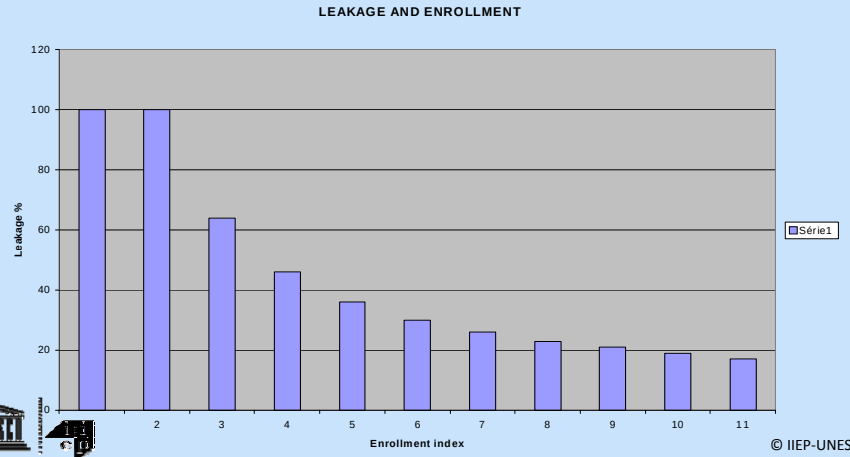
- For researchers, managers and policy makers: two complementary tasks:
  - analysis of leakage: locating and measuring
  - analysis of causes to propose remedies
- Descriptive and probability statistics:
  - graphical description (histograms, curves…)
  - regressions, correlations, multivariate analyses

* RATES OF LEAKAGE: HARD DATA

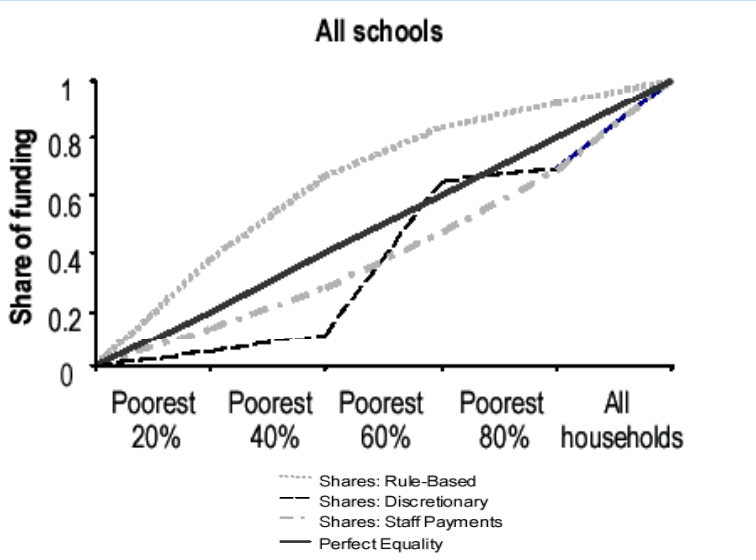
Evidence from PETS: non-wage funds

Country	Year	Fund	Sample	Leakage
Ghana	1998	**Nonwage**	126	49 p.c.
Peru	2001	Utilities	100	30 p.c.
Tanzania	1998	Nonwage	45	57 p.c.
Uganda	1995	Capit. grt	250	87 p.c.
Zambia	2001	Fixed grt	182	10 p.c.
Zambia	2001	Discr. grt	182	76 p.c.

** DESCRIPTIVE STATISTICS: DETERMINANT OF LEAKAGE IN UGANDA



*** ZAMBIA: EQUITY ANALYSIS



***STATISTICAL ANALYSIS: HEALTH SERVICE IN CHAD

- Negative impact on health center output of public resource allocation to regional delegations (regression estimates)
- Once leakage of health expenditures taken into account, positive and significant impact of resource allocation on health services (positive regression coefficient).
- Policy implications?

Source: Gauthier and Wane (2005)

CONCLUSION

- Timely information about actual spending not provided by public accounting systems
- Usefulness of PETS to provide an accurate picture of the service delivery
- Importance to make budget transfers transparent
- Need to integrate PETS:
  - in the administrative process (linkage with audit)
  - in the public communication policy
- Information dissemination as a powerful tool of change

Course on PETS
Kampala, March 2009

OBJECTIVES AND ISSUES FOR THE PETS

Jacques Hallak & Muriel Poisson

1. AGREE ON PURPOSE AND OBJECTIVES

- Identify:
  - key questions and tentative answers
  - resource flow and rules for allocation
  - roles of public, “para state” and private sectors
- Assess:
  - data availability
  - local capacity to carry out the survey
- Agree on purpose and objectives

2. PREPARE FOR THE STUDY THROUGH CONSULTATIONS

- Consult stakeholders on objectives
  - ministries: education, finance, planning, etc.
  - donors
  - civil society: PTA, teachers' unions, etc.
- Why?
  - to get useful inputs
  - to understand what they hope to find out
  - to motivate them and develop ownership

EX. 1 – MOTIVATION AND OBJECTIVES: NIGERIA

- *Context and motivation:* decentralization of basic health service at local level, learn how institutional arrangements work in practice and impact service delivery
- *First objective:* examine flow of resources and incentives at facility level
- *Second objective:* examine role of local governments and communities in the delivery of basic health services

EX. 2 - PURPOSE AND OBJECTIVES: PERU

- *Problem:* severe administrative disorder in educational financing
- *First objective:* measure leakage of funds on their way to schools
- *Second objective:* uncover corruption in teacher hiring and promotion

EX. 3 - PURPOSE AND OBJECTIVES: ZAMBIA

- *Problem:* decrease in enrolments, especially in poor communities
- *First objective:* measure extent to which earmarked resources actually reach schools
- *Second objective:* measure how much this funding improves equity in education
- *Third objective:* examine how interventions could reverse enrolment decrease

SUGGESTIONS FROM THE FLOOR

- Formulate the objectives of a PETS to be carried out in Uganda (select a sector) by:
  - Identifying the problems to be addressed
  - Defining the objectives of the PETS

3. IDENTIFY RESEARCH QUESTIONS AND TENTATIVE ANSWERS

- To collect data you should have in mind:
  - one or more research questions
  - a tentative answer (hypothesis) to each question
- Good tentative answer = successful study
- To develop a good tentative answer, use:
  - evidence, anecdotes, experiences
  - sound concept
  - country's broad education goals

EX. 1 - QUESTION AND TENTATIVE ANSWER: NIGERIA

- *Question:*
  - has decentralization a beneficial effect on allocation and use of resources?
  - is leakage of funds higher in rural than urban settings?
- *Tentative answers:*
  - probably to the extent that strengthening local government accountability can reduce public resource capture
  - in urban setting more alternative providers (including private) and more effectiveness in monitoring frontline providers

EX. 2 - QUESTION AND TENTATIVE ANSWERS: PERU

- *Question:* why is educational financing in disorder?
- *Tentative answers* (not explicitly stated):
  - major leakage in teachers' salaries process
  - implementation units (IUs) capture a share of non-wage funds due to their discretionary power, e.g. they often omit to pay utilities
- Explicit tentative answers could have helped the study to yield concrete results

EX. 3 - QUESTION AND TENTATIVE ANSWERS: ZAMBIA

- *Question:* Why do school enrolments decrease, especially in poor communities, despite increased government funding?
- *Tentative answers:*
  - discretionary funds (major part of govt allocations) do not reach all schools
  - rule-based funds reach all schools
  - due to bargaining power, schools with wealthy parents get more discretionary funds per pupil

SUGGESTIONS FROM THE FLOOR

- Formulate the objectives of a PETS (select sector) to be carried out in Uganda by:
  - Specifying the questions to be addressed
  - Providing tentative answers to be documented

Course on PETS
Kampala, March 2009

STRUCTURE OF DECISION MAKING AND MECHANISMS OF FINANCING

Jacques Hallak & Muriel Poisson

INTRODUCTION: REMINDER

In the PETS preparation, after defining the objectives and issues, the first question to be addressed is:

- Who is in charge of what?
- How the resources flow?

Sources of funds
(*Ministries, foreign aid, etc.*)

↓

Front line service delivery
(*schools, health centers, etc.*)

↓

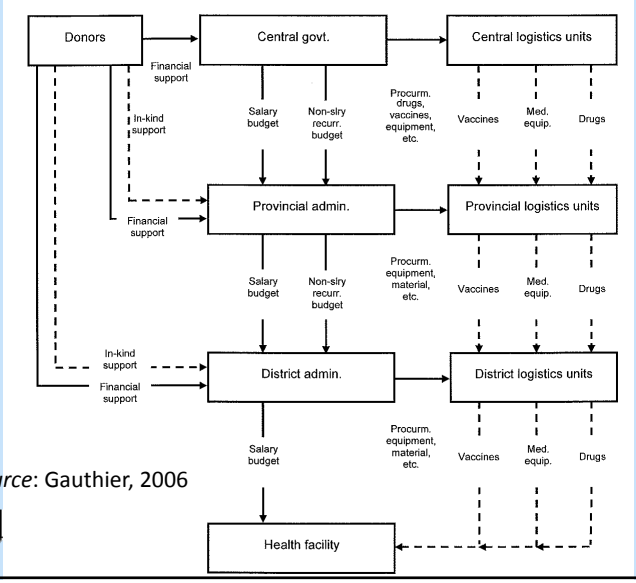
Types of expenditures
(salaries, non wage expenditures, etc.)

THE CHALLENGES FOR PETS

Tracking requires, for each sector:

- Identification of the sources of funds:
  - on budget and off budget
  - national and foreign sources
- Rigorous estimates of the amounts disbursed
- Knowledge of the "routes of flows"*
  - by type of expenditures (investment, current..)
  - for frontline service providers

* FLOW OF RESOURCES IN THE HEALTH SECTOR IN MOZAMBIQUE (---=in kind;___=cash)



Source: Gauthier, 2006

OUTLINE

I. Sources of funding
II. Decision-making
III. Modes of financing
IV. Opportunities for corrupt practices

I. SOURCES OF FUNDING

1. SOURCES OF EDUCATION FUNDING

- Public Sector [amounts and % GDP]
  - by level of government (national, regional, local)
  - budget and for " para statal " (infrastructures)
- Private Sector [amounts and % GDP]
  - by households
  - by NGOs and/or private firms
- Figures to know (in cash and kind)
  - by type (energy, roads..)*
  - by level (basic, secondary schools; hospitals, health centers, etc.)

* UGANDA: INTRA-INFRASTRUCTURE BREAKDOWN

Budget spending (UShs. m) 2003/04

- Communication: 241.5
- Fuel and energy: 55 570.0
- Irrigation: 5 391.5
- Transport: 232 943.8
- Waste management: 247.0
- Water supply: 102 996.5
- Total Ministry: 3 973 390.4

2. SOURCES OF FINANCE: PUBLIC SECTOR

- Governments and "para statal": national, regional, local
- Ministries:
  - finance
  - planning
  - agriculture
  - infrastructure
  - education
  - social welfare
  - health

SOURCES OF FINANCE: TYPICAL CASE IN EDUCATION

Ministry	National	Regional	Local
Education			
Finance			
Planning			
Social Welfare			
Health			

3. EDUCATION EXPENDITURE CATEGORIES

- *Education Ministry*: teachers, textbooks, supplies, supervision, school grants
- *Finance Ministry*: intergovernmental transfers, school grants
- *Social Welfare Ministry*: school lunch, pensions, income contingent scholarships
- *Health Ministry*: helminth and iron medications
- *Labor, Religion, Defense Ministries*: specialized schools

4. FINANCING EDUCATION: PRIVATE SECTOR

- Households:
  - tuition and fees (PTA fees, sports fees)
  - textbooks, supplies, transportation
  - in-kind contributions
  - private tutoring
- NGOs and Firms:
  - in-kind contributions: supplies, internet
  - cash donations
  - employee time

II. DECISION-MAKING

1. DEFINITION OF DECISION-MAKING

- *Decision points:* where resource allocations and resource deployments are made
- Decision-making and decision points may be concentrated in the national ministry, in other govt. levels, or be spread across different entities at different levels
  - national
  - regional/provincial
  - local/district
  - municipal
  - front line delivery service

2. IMPORTANCE OF "DECISION-POINTS"

- *Decision points are important:* they provide opportunities for leakage, bottlenecks, poor decision-making, etc.
- A full understanding of the institutional/organizational context is necessary in undertaking a PETS
- It can be challenging to identify decision points in decentralized systems

3. KEY DECISION-MAKING AREAS IN EDUCATION

- Key decision-making areas in education include:
  - personnel (*recurrent expenditures*)
  - curriculum
  - textbooks
  - facilities (*capital expenditures*)
  - supplies
  - financing
- Decisions on these areas may be made at various levels of govt./bureaucracy and can differ considerably across countries

DISTRIBUTION OF DECISION-MAKING: FEW EXAMPLES

Country	Payment of Teachers	Teacher Recruitment	Textbooks	School Maintenance
Chile	Municipal	Municipal	Municipal	School Council
New Zealand	Central	School	School	School Council
Bangladesh	Provincial	National	National & District	National
Yemen	Provincial	National	National	National
Brazil	Municipal	Municipal	School	School

4. DECISIONS ABOUT SPECIFIC FUNCTIONS

- Decisions about a specific function can be spread across several different administrative levels
- Teachers:
  - teacher pay scale/level
  - certification
  - recruitment and selection
  - transfers and promotions
  - pre-service training provision
  - in-service training provision
  - performance evaluation

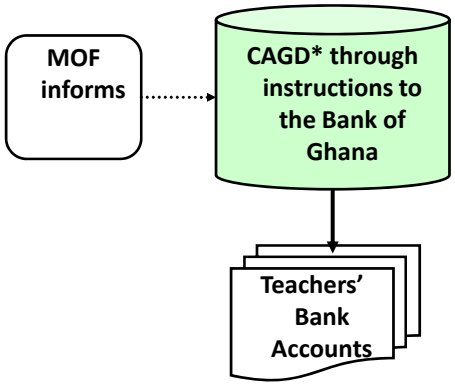
II. MODES OF FINANCING

Direct funding

Formula funding

1. DIRECT FUNDING

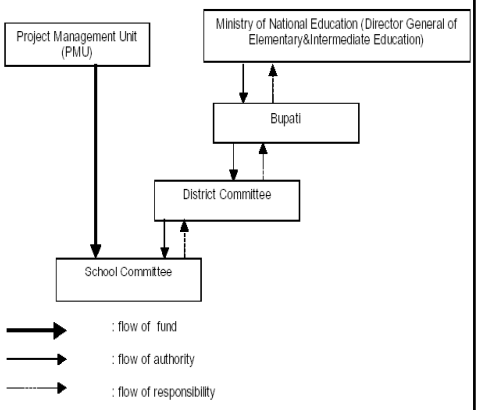
Personnel emoluments:



* Controller and Accountant General's Department

Source: Steffensen, 2006

Non wage funds:



Source: Baines, 2005 (IIEP)

2. FORMULA FUNDING AND DECENTRALIZATION

- Better relevance to needs and good governance can be expected by:
  - getting closer to the users
  - promoting participation and building ownership
- More transparency and accountability: consistently applied formula determines what each service provider is allocated: this is known by the service provider and can be made publicly available
- At the same time, the introduction of FF and the delegation of spending decisions can increase the possibility of fraud as many more people have direct access to funds

3. FROM SUPPLY TO DEMAND-SIDE APPROACH

- Mechanisms to distribute funds among spending units
  - traditionally, norms for inputs
  - now "money follows size"-patients, pupils, kms..- (based on capitation, unit cost or average cost)
- The money should go to a jurisdiction small enough to be politically accountable / large enough to create possibilities for shifting resources among service providers
- But in the case of Poverty Action Plan Fund in Uganda: rationale for deciding "*who should be doing what*?"

4. DEFINITION OF FORMULA FUNDING

- *"Agreed set of criteria for allocating resources to schools, impartially applied to each school"*
- Use of formula funding:
  - *rather simple:* deployment of teachers linked to class size
  - *rather sophisticated* e.g. UK: pupils number (75%), students additional needs (5%), physical conditions (20%), extra allowances/learning difficulties, using as a proxy Free School Meal (% FSM)

FORMULA FUNDING IN TANZANIA

Main transfer schemes	Allocation criteria
1) Conditional grants (little flexibility)	1) Health sector grants: 1) Population (70 %), 2) Poverty count (10 %), 3) Vehicle route mileage/distance (10%) and 4) infant mortality rate (10%)
2) Various basket funds	2) Earmarked to boost service delivery in education, health and roads
3) Non-sectoral capital development and capacity building grants	3) Formula-based: (i) population (70%), (ii) land size of the LG territory (10%) and (iii) poverty count (20 %) 4) Adjustment (+/- 20%) for LG performance

Source: Steffensen, 2006

IV. OPPORTUNITIES FOR CORRUPT PRACTICES

1. ALLOCATION OF FUNDS

- Non-transparent criteria used for selecting eligible schools or pupils (favoritism, nepotism, politicization of the process, etc.)
- Overstatement of eligible schools or students by head teachers or local education officers in order to attract more resources*
- Non-eligible schools or pupils manipulating data in order to be entitled to receive the funds*
- Non-eligible schools or pupils 'convincing' education officers that they are eligible (bribes)

* DISTORTION OF THE FORMULA

Type of formula	Pervasive effects
Allocations according to size of schools	Inflation of enrolment figures
Utility costs funded according to past expenditures	No incentive for more efficient use of energy, water and telephones
Indicators of students' leaning needs	Incentive to principals to encourage low scores
Data for calculating extra funding collected from the school (socio economic background, poverty, ethnicity, language)	Principals tempted to falsify statistical returns

2. DISTRIBUTION OF FUNDS

- Payment of 'facilitation fees' by schools to obtain approval for withdrawing funds from bank accounts
- Payment of 'taxes' to local officials in order to obtain the allowance or the scholarships granted
- Payment of 'taxes' by teachers to local officials or head teachers in order to obtain their salary
- Reduction of disbursements by local officials or procurement of fewer non-wage items for schools
- Withholding of scholarships by school officials, either for funding the school or for private use
- Embezzlement of funds by educational officers at different levels of the administrative hierarchy

3. USE OF FUNDS

- Use of funds for purposes other than education, health, etc. (public or private)
- Use of part of operational funds to cover administrative costs (in Uganda, use of capital funds for O&M?)
- Irregular bookkeeping practices and falsified orders and receipts to cover up irregular payments
- Irregular payments made to officials, members of school/health committees, etc.
- Grant funds used for inappropriate goods
- Use of funds to finance political parties or electoral campaigns

OPPORTUNITIES FOR LEAKAGE IN SCHOOL LUNCH FINANCE

- Provincial Depts. of education overstate enrollment of eligible students
- Provincial education officials "overpay" for foodstuffs and/or its transport
- Private firms "lose" foodstuff en route or fail to deliver food before it spoils
- Non-eligible schools "convince" Provincial officials they are "eligible"
- Food "disappears" from school storage rooms or "spoils" before it is used
- Meals are "sold" to school children

CONCLUSION

Multi-dimension strategy for improving transparency and accountability in financing:

- Checking data accuracy
- Implementing tracking surveys
- Undertaking control at school level

Course on PETS
Kampala, March 2009

SAMPLING

Jacques Hallak & Muriel Poisson

INTRODUCTION

Sequences in survey implementation:

- Sample design
- Sample selection
- Questionnaire design (*following session*)
- Implementing survey (*later session*)

OUTLINE

I. Definition
II. Sample frame
III. Sample selection
IV. Guidelines

I. DEFINITION

1. SAMPLING

- PETS use a sample survey methodology
- Data are collected on a sample of facilities
- Sample must be representative of all facilities in the country
- Avoid biased sample (with unusual units)
- To design a representative sample, PETS use the stratification method

2. DIFFERENT STRATEGIES FOR SAMPLING

- Sampling choices based on convenience
- Probability sampling choices
- For each unit, an adequate sample choice has to be made:
  - central government
  - decentralized entities
  - local service providers
  - staff, etc.

3. BASIC REQUIREMENTS ON SAMPLE DESIGN

- Target population definition
- Specification of domains and strata
- Sampling frame preparation
- Establishment of required sampling precision
- Establishment of required sample size
- Application of mechanical selection procedure with known probabilities
- Calculation of sampling weights and sampling errors

4. TARGET POPULATION

- *Desired target population:* the population for which results are ideally required
- *Defined target population:* the population which is actually studied and whose elements have a known and non-zero chance of being selected into the sample (unit, context, location, time)
- *Excluded population:* due to accidental or intentional non-coverage (about 5 %)

DESIRED AND DEFINED POPULATION: THE CASE OF NAMIBIA

Desired = primary and secondary schools and health facilities in Namibia in 2003

Defined = all public and private primary and secondary schools, district hospitals, health centers and clinics located in 7 out of 13 regions in Namibia in 2002-03

Moving from general to more specific description

II. SAMPLING FRAME

1. SAMPLING FRAME

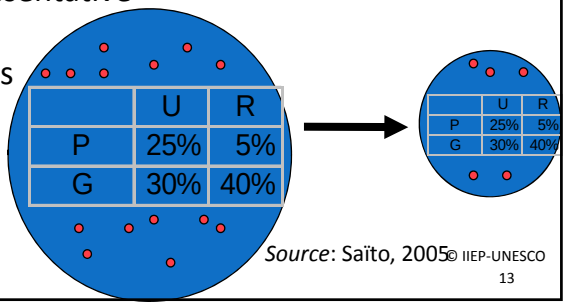
- List of elements in the population from which a sample is drawn
- Sources:
  - school census data, examination register
  - hospital register
  - tracking funds allocated to the maintenance of the road system in Uganda: what is the sample frame?
- Needs to be (Ghana):
  - up to date
  - supporting decentralization
  - compatible with CWIQ 2003 and GLSS5 sampling frame

2. TYPES OF SAMPLING FRAME

- Exhaustive list – examples:
  - list of schools from DOE
  - patients of a general practitioner, clients of a clinic
- Multi stage procedures:
  - higher level units (*regions*)
  - out of these, lower level units (*districts*)
  - final stage subjects (*schools, health centres, electricity self generators, district road maintenance centres…*)

3. CHARACTERISTICS OF A SAMPLE FRAME

- *Probability sampling:* each facility has a known probability to be selected
- *Non probability sampling:* judgment sampling ("typical sample")
- *Convenience sampling:* accessibility or convenience
- *Quota sampling:* representative of population, with restriction on elements per stratum

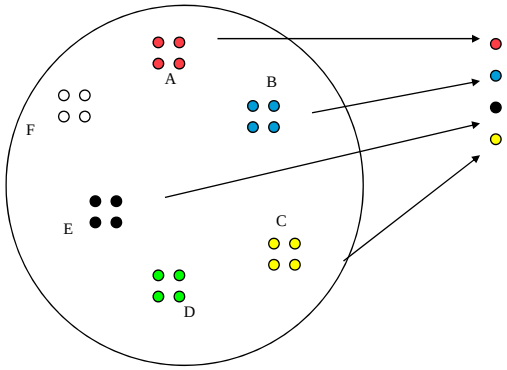


Source: Saïto, 2005

III. SAMPLE SELECTION

1. SIMPLE RANDOM SAMPLING (SRS)

Select a simple random sample of 4 clinics.

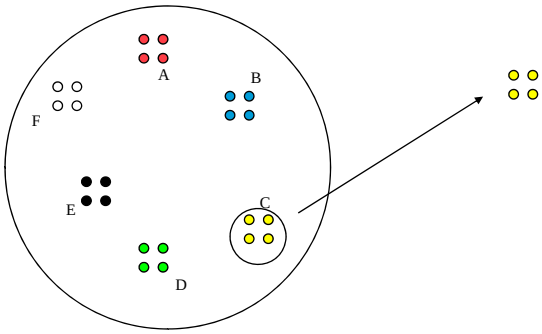


$$p = \frac{4}{24} = \frac{1}{6}$$

Source: Saïto, 2005

2. SINGLE STAGE INTACT CLUSTER SAMPLING

Select a simple random sample of one district and then accept all clinics in the selected district.

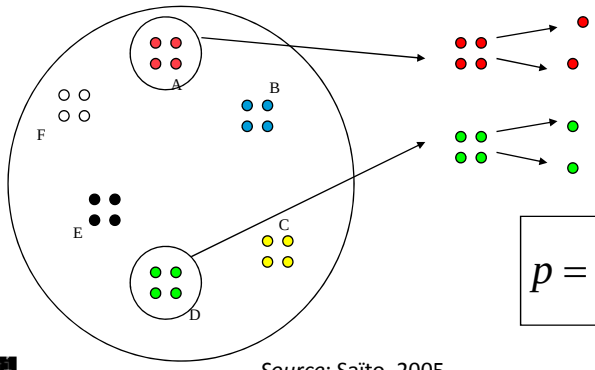


$$p = \frac{1}{6} \times \frac{4}{4} = \frac{1}{6}$$

Source: Saïto, 2005

3. TWO-STAGE CLUSTER SAMPLING

Select a simple random sample of two districts followed by a simple random sample of two clinics within each selected district

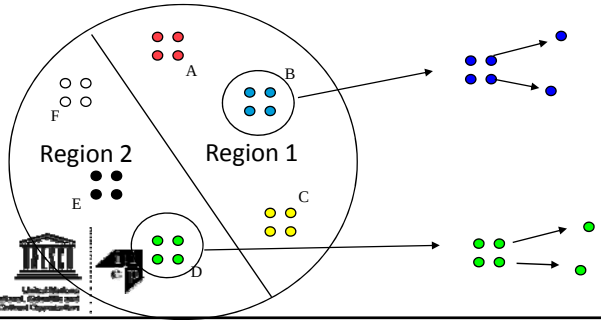


$$p = \frac{2}{6} \times \frac{2}{4} = \frac{1}{6}$$

Source: Saïto, 2005

4. STRATIFIED (REGION): TWO-STAGE CLUSTER SAMPLING

- Stratify the population by region (1 and 2)
- Select a simple random sample of one district in the first stratum, followed by a simple random sample of two clinics within the selected district
- Repeat this for the second stratum



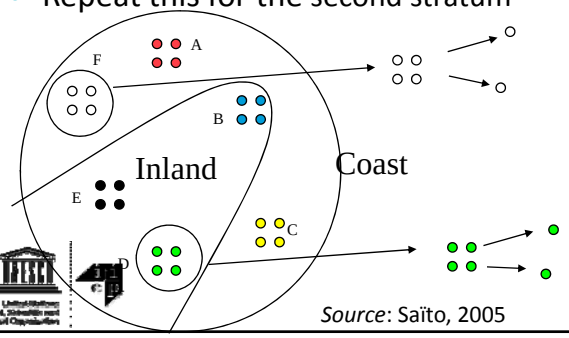
$$p = \frac{1}{3} \times \frac{2}{4} = \frac{1}{6}$$

Same for both strata

Source: Saïto, 2005

5. STRATIFIED (GEOGRAPHICAL AREAS): TWO-STAGE CLUSTER SAMPLING

- First stratify the population by geography (*coast/inland*)
- Select a simple random sample of one district in the first stratum followed by a simple random sample of two schools within the selected district
- Repeat this for the second stratum



$$p = \frac{1}{3} \times \frac{2}{4} = \frac{1}{6}$$

Same for both strata

Source: Saïto, 2005

IV. GUIDELINES

1. MESSAGES ON ACCURACY AND COST

- We can loose accuracy by intact cluster
- It is better to take more districts and less power plants per district rather than less districts and more power plants per district
- Stratification can increase accuracy with careful selection of stratification variable(s)
- Cluster sampling can be a cost saving solution
  - cost saving or more precision or both ? Comments?

2. IMPLICATIONS

- Separate sample per stratum…
- To reduce variability in the sample estimates, while maintaining limited / reduced bias
- Seeking homogeneity within strata rather than between strata to increase precision
- S*trong suggestion:* use proportionate sampling (sample size per stratum, proportionate to the size of the stratum)

3. PROBABILITY PROPORTIONAL TO SIZE (PPS)

- Unequal sizes or chances of selection
- PPS related to measure of size (MOS): larger PSU, higher probability of selection
- *Example:* a clinic with 10 nurses is twice likely to be selected than a clinic with 5 nurses
- *Recommendation:* If PSU s are selected with probability weighted according to their size and an equal number of individuals is chosen per PSU at the second stage of sample selection, the end result is a self-weighted sample

4. ADVANTAGE OF PPS

- Every person in the universe described by sampling frame has the same probability of being included into then sample
- This design eliminates the need to weight the data to make estimates and during analysis

5. ILLUSTRATIVE EXAMPLES

- Divide set of all delivery service units into sub-groups: regional, rural/urban, public/private, etc.
- Sample these sub-groups independently
- Stratification:
  - increases survey efficiency
  - facilitates separate analyses of sub-groups
  - allows use of prior information to improve statistical basis

EX. 1 - SAMPLING: NEPAL (THEORICAL)

- Country reconfigured into 7 regions
- In each region, 2-3 districts randomly selected: sample of 19 districts out of 43
- In each district 10 to 20 clinics randomly selected, depending on number of clinics
- Total sample = 250 clinics out of 8,500
- Half of the sample clinics in urban setting

EX. 2 - SAMPLING: PERU (PETS)

- Sample of 7 departments (including Lima) selected, out of 25 to represent:
  - coast, mountain, jungle
  - North, Centre, South
- In the sample, 25 representative Units chosen through stratification (size, location)
- 2 urban and 2 rural schools randomly selected in each representative Units

EX. 3 - SAMPLING: ZAMBIA (PETS, QSDS)

- Adapted from the sample of the National Assessment Survey of Grade 5 Level
- 4 provinces selected out of 9 in the country
  - 2 rich, urban, high enrolment, large schools
  - 2 poor, rural, low enrolment, small schools
- Random stratified (urban/rural) sample of 184 schools selected in 33 districts
- Administration of performance to 3 200 pupils in these schools

EX. 4 - SAMPLING: GHANA

- 10 regions
- 3-7 districts per region (total: 48 out of 138)
- Facilities:
  - education sector: 7% (from 7% to 28%)
  - health sector: 26% (from 23% to 100%)

CONCLUSION: NEXT STEPS

- Sampling weight to prepare aggregate estimates
- Sampling errors: different calculation methods for different sample designs
- Use of available software

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Kampala, March 2009

QUESTIONNAIRE DESIGN FOR DATA MANAGEMENT

Jacques Hallak & Muriel Poisson

INTRODUCTION : WARNING AND REMINDER!

- To collect data in order to document the tracking
- Need of information:
  - *top-down:* budget and resources (funds, material, personnel)
  - *bottom-up:* reception of resources (use of input, activities and needs)
- Understanding information flows and recording procedures crucial to determine what can be (and how to) track
- How to track in-kind transfers ?

* LIMITED INFORMATION OF HEALTH DELEGATES IN CHAD

- In Chad, regional health delegates informed of the financial credit allocation
- Not informed about in-kind transfers:
  - drugs
  - medical materials
  - etc.
- No information available about out-flow at regional level

INTRODUCTION

- Main determinant: the purpose of the study, e.g. in education:
  - PETS?
  - absenteeism?
  - student learning?
  - decision-making?
- Include questionnaires that cover these areas
- Do not try to collect everything from everyone

OUTLINE

I. Preparation of the questionnaires

II. Design of questionnaires

III. Data management

I. PREPARATION OF THE QUESTIONNAIRES

1. CONSTRAINTS FOR PARTICULAR QUESTIONNAIRES

- What organizational capacity:
  - if you want to interview a technician in water supply … you need the time and the interviewers to do it
  - if you want to interview all levels of government/ administration … again that needs to be budgeted for
- What ability to verify information:
  - while you might want to collect district budget data, if the office keeps no records: is it worth it ?

2. SO KEY TRADEOFFS…

- Scope of the study / priority questions
- Capacity to collect information, in view of:
  - the budget
  - the time
  - the people available
- *Objective:* to help you design questionnaires that will facilitate the capture and computerization of your PETS data

3. NUMBER OF QUESTIONNAIRES?

Good understanding of the following combination:

- Administrative structures*
- Sources of funds
- Flow of each type resource through such structures
- Institutional arrangement at each level for handling from higher level and to another level
  - can vary from local government to another in decentralized systems
- Banking system, with respect to flows of funds

* LEVELS TO APPLY THE QUESTIONNAIRES

- Central government (MOF, MOES, MOH, etc.)
- Province/Region
- District
- Sub district
- School/health facility/power plant…
- Pupils, patients, residents

4. TYPES OF QUESTIONNAIRES

- Data sheets for collection of data at specific levels
- Questionnaires with portions covering different respondents in the institutions or separated questionnaires for each respondent to avoid confusing enumerators
- Qualitative information recorded at the end of the questionnaire
  - answers to some parts of the questionnaire can be clarified, using this part

II. DESIGN OF THE QUESTIONNAIRES

WARNING !

- Certain data are subject to cheating:
  - *collect data close to original source: e.g. from check receipts rather than from notebooks*
  - *cross-check data from different sources*
- Avoid inappropriate questions:
  - *leading questions (influence respondent)*
  - *open-ended questions (difficult to process)*

1. CENTRAL/REGIONAL/DISTRICT QUESTIONNAIRES

- What financial or in kind flows of resources at each level
- What additional financial or in kind flows of resources at lower levels (schools, health centers, roads, energy supply, etc.) from other sources
- Who contributes to these additional resources
- Which resources to track in the PETS (in cash/in-kind, salaries/capital/other flows)
- How are different resources accounted for at delivery service unit level and other levels

2. GOVERNMENT QUESTIONNAIRE: FINANCIAL DATA

- Design questionnaire closely to official funds flows charts, but:
  - sometimes reality doesn't match "official" flow perfectly
  - or people don't understand the flows in the "official" way
- Keep good track of the difference between what is proposed, what is budgeted, and what is actually spent
- Make sure that the information is verifiable
  - decide how you will proceed if it is not

3. SERVICE PROVIDER QUESTIONNAIRE

- Set of questions intended to collect data at delivery service level, addressing most of the issues identified during the PETS preparatory stage (*issues and objectives*)
- Most important questionnaire, but expensive to execute*
- Implemented at the service delivery point:
  - where various aspects of service can be observed
  - where all the inputs converge and can affect the delivery and quality of service to consumers (pupils, firms, etc.)

* EXAMPLE: SCHOOL QUESTIONNAIRE

- Easy for this to become way too long – everyone wants to add their issue of interest
- Many people to interview in education, e.g.:
  - principal
  - school board members
  - teachers
  - parents
  - students
- **Make sure that you know how to use the data after it is collected**

4. FOR EACH LEVEL

- Identify issues that will be covered. For example:
  - budget inflows and outflows
  - decision-making authority
- Identify also who needs to be interviewed, e.g.:
  - district budget officer, school treasurer
  - district education administrator, principal
- Design a questionnaire for each of those people covering the relevant issues

III. QUESTIONNAIRE DESIGN FOR DATA MANAGEMENT

1. BASIC REQUIREMENTS

- Make sure that the wording of questionnaires is precise
- There should be as little “on the go” interpretation as possible
- Consider an “official” translation to avoid various misinterpretations
- When done correctly, you have:
  - neatly filled questionnaires
  - consistency in response codes
  - easy-to-read for data entry agents
  - consistency in the overall analysis

2. ELEMENTS OF CLEAN DATA

- Consistent and logical
- Frequency of unit of analysis and all other variables consistent
- Expenditure of continuous variables realistic
- Consistency in coding
- All missing values justified and documented

3. QUESTIONNAIRE LAYOUT

To facilitate data entry and cleaning:

- Involve a Data Management Specialist from the beginning
- Delineate the questionnaire into sections
- Pre-code all variables directly on the questionnaires
- Enumerate each variable clearly
- Create entry boxes for response fields*
- Integrate logical skips and test it during pilot

* QUESTIONNAIRE DESIGN FOR DATA MANAGEMENT (*SCHOOL*)

No	**Questions**	CODES	Skip to	
1	Head teacher last year?	1. Yes 2. No	 >>q3	
2	Position last year	**Gov. official** 1. Private 2. Other	>>q7 >>q7 >>q7	
3	How many teachers are in this school?	Number		
4	How many males	Number		
5	How many are females	Number		
6	What is your salary	Enter "-1" for refuse to answer	>>q10	
7	Number of tests performed last year	1. Aids 2. Malaria 3. Cancer		

* QUESTIONNAIRE DESIGN FOR DATA MANAGEMENT (*SCHOOL*) – *ctd.*

No	**Questions**	CODES	Skip to	
1	Did you perform X last year	1. Yes 2. No	 >>q3	
2	Number of tests performed	Number		
3	Did you spend on product X last year?	1. Yes 2. No	>>q7	
4	How much	amount		
5	Do all your teachers have cars	1. Yes 2. No 3. Do not know		
6	Do they drive to school	1. Yes 2. No 3. Depends 4. Do not know		

4. QUALITATIVE INFORMATION

- Allow interviewers to enter their impressions, comments, etc…
- Go over the type of qualitative information that you would like to record during training, e.g.:
  - anecdotes
  - comments on data quality

5. DATA PROCESSING

- Always the “bottleneck” in all surveys
- Typical PETS fieldwork: 2-3 months
- Primary data entry: 3-4 months
- Data cleaning: 6 months more, yet “unclean” data

Conclusion

- Involve a data management specialist early
- Response clear in all circumstances
- Responses anticipated thus pre-coded
- Communicate with data management specialist

Course on PETS
Kampala, March 2009

ORGANIZING AND IMPLEMENTING SURVEYS

Jacques Hallak & Muriel Poisson

OUTLINE

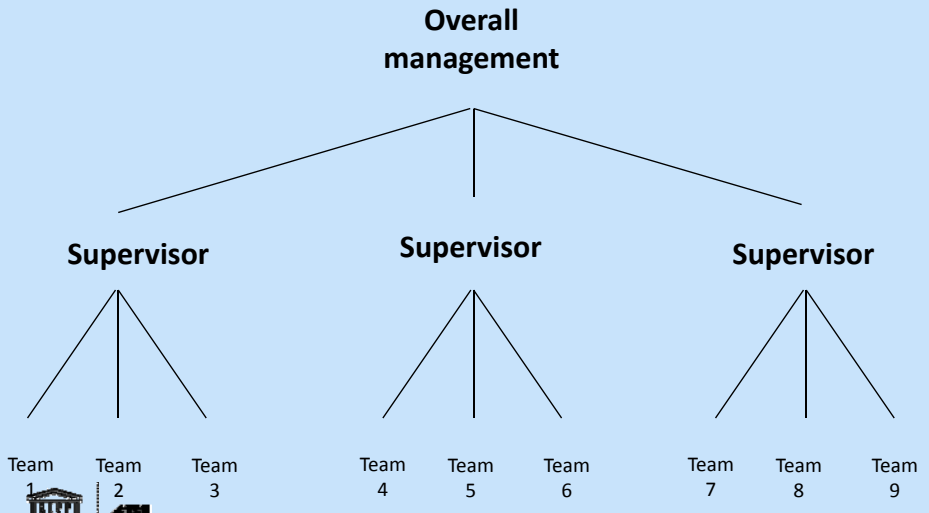
I. Planning
II. Organization
III. Quality control

I. PLANNING

1. PLANNING IS NEEDED

- Preliminary steps for tracking survey work:
  - proper core team qualification
  - adequate time frame
  - financial resources
- The logistics of a survey such as this are important:
  - lots of staff
  - lots of travel
  - lots of information to be managed*

* MANAGEMENT STRUCTURE



2. PLANNING THE SURVEY

- Requires a dedicated project manager
- Prepare a flow-chart of events
- Identify the core-project team*
- Identify the core responsibilities of each project team member
- Clearly indicate the person responsible for each activity on the flow chart

* WARNING!

- Cooperation of public officials: easy ownership by government
- But no guarantee of the independence of survey teams (e.g. Cameroon, Sierra Leone)
- Involving civic society organizations is crucial !

3. INTERNAL PROCESSES: DEVELOPMENTS TOWARDS PROJECT ROLL-OUT

- Arrange for regular project team meetings for updates and report backs on assignments
- Identify stakeholders of the project
- Inform the stakeholders about the project*
- This helps improve participation
  - *Example*: teachers are more likely to participate if the directive is from their union than from the school principal

* EARLY INVOLVEMENT OF POLICY MAKERS

- PETS initiated BY?
- PETS information gathering tools for policy makers: establish broad based consultation with country stake holders
  - ministries
  - para state
  - donors
  - NGOs
- Seek early involvement and commitment
- Build ownership

4. PLANNING THE FIELDWORK

- Define the scope of the fieldwork: school, health centers, district, provinces or regions
- Estimate the time to spend at each level
- Incorporate possibilities of return visits
- Effect of field sampling of those to be interviewed
- Thoroughly establish the cost of work: staff, transport, communication, data analysis, reporting and dissemination

5. GOOD PRACTICES

- Make sure all authorizing bodies have signed off (e.g. for sharing budget execution information at the district level)
- Make sure you staff have everything they need:
  - appropriate letter of introduction (from Ministry?)
  - sufficient copies of the questionnaires and manuals
  - access to the “official” translation, if required

II. ORGANIZATION

1. SELECTION OF FIELD WORKERS

- Set out possible criteria for selection e.g.
- Language
  - previous experience
  - communication skills
  - willingness to work for long hours
  - ability to drive
- Recruit more fieldworkers than you may need to avoid problem of turnover.
- Explain what is expected of each staff and terms of service
- Different categories of staff: supervisors, enumerators, data managers, etc.

2. PREPARATION FOR TRAINING

- Ensure that the questionnaires are complete to the best of ability
- Develop a guide (fieldwork manual) for interviewers and supervisors
- The manual goes through the questionnaire one question at a time
- The manual explains the rational behind each question and its intended meaning
- The manual can be used in the training and in the field to clarify ambiguities

3. FIELDWORK TRAINING

- Clarify the duration of training and what is to be expected (1-2 weeks minimum for enumerators and supervisors)
- Prepare (preferably in files) the training material.
  - questionnaires (opportunity to revise)
  - fieldwork manual
  - introductory letter
  - informed consents
- Training should be in the form of lectures, participatory and group work.

4. WORKSHOP OR PILOT

- Involve the whole core project team in the training
- Work with each individual/pair
- Assess the capability/weakness of each staff and discuss
- Go through pilot work done and discuss with each individual or pair
- Test all the aspects of the survey: duration, questionnaires, sampling, staff, supervisory work, communication network
- Organize one day review training and determine modification of the questionnaire required
- Give certificates to fieldworkers (improves morale)

5. IMPLEMENTING FIELDWORK

- Set out clear criteria for working:
  - *minimum coverage*
  - *procedures to be followed*
  - *contracts*
  - *payment of field allowances*
  - *questionnaires required*
  - *reconciliations*
- Explain clear the collection and delivery processes
- Check completed questionnaires
- Motivate field staff (avoid us and them!)
- Ensure communication with field teams and supervisors

6. A REMINDER

- Make sure appointments are made before arrival unless if by design
- Letter of authorization from superiors
- Questionnaires and manuals for each level
- Letter of consent of participation
- Wear fieldwork name tag
- Have contacts of the PI or any person that can be contacted by the respondent if need be
- Conduct the interviews*

* ROUGH GUIDE FOR STAFF FOR EACH INTERVIEW

- For example, when you reach a Unit:
  - introduce yourself
  - interview the principal
  - collect background information
  - collect financial information
  - …
- **Remember:** organize the questionnaire in a way that matches this plan

III. QUALITY CONTROL

1. HANDLING COMPLETED QUESTIONNAIRES

- Communicate with team at the end of everyday/morning
- Weekly or bi-weekly submission of completed questionnaires
- Review each received questionnaires for errors and inconsistencies
- Pass the questionnaire to data manager for data entry
- Handle questionnaires returned by data manager and re-submit

2. DATA ENTRY

- Good questionnaire design facilitates the database design and subsequent data entry
- Design an effective data entry program
- MS Access, Visual basics, CsPro, and many others
- Data entry screen must match the questionnaire
- Number the variables as they are numbered on the questionnaire
- This helps data capturers follow the flow

3. REAL TIME QUALITY CONTROL

- Regular submission of completed questionnaires: every week, two weeks
- Supervisor careful review and feedback/questions
- Pass on to data entry
- Flag inconsistencies using data entry package
- Return questions to team for clarification, correction

4. CONCURRENT CONTROLS

- Include concurrent controls on the database
- These checks are done at the data entry time
- These are build in skip patterns and ensure consistencies in the data
  - *Example: If S1Q1 = 2 then skip to S1Q3*

5. INTEGRATE RANGE CHECKS

- Limits all out of range values
- Most out of range values come from carelessness from data entry
- Ensure the database does not enter an out of range value
- Include simple consistency checks on the questionnaire e.g.
  - *Q1: When did you start teaching in this school=2000*
  - *Q2: When did you start teaching=2002*
- Include a message e.g. (S1Q1 must be >=S4Q2)

6. QUALITY CONTROL: SUMMARY

- Data entry screens must match questionnaire
- Incorporate concurrent controls
- Integrate range checks
- Communicate with the data capturing unit

CONCLUSION

- Surveys require careful planning, including participation of stakeholders
- Organization should comprise training and monitoring
- Built-in quality control should take place at each step of data management

Course on PETS
Kampala, March 2009

DATA ANALYSIS OF PETS

Jacques Hallak & Muriel Poisson

INTRODUCTION

Where PETS Analysis should lead us?

- Leakages and understanding public spending on education
- Delivery systems of resources and relation to leakages
- Ability to change policies and procedures to reduce leakages and improve school effectiveness to realize better social outcomes

⇨ The value of QSDS

OUTLINE OF THE PRESENTATION

1. Contacts with the Government
2. Analysis of PETS
3. Analysis of leakage
4. Locating and measuring leakages
5. Analysis of causes
6. In-depth analysis

- *Examples:* Madagascar, Peru, Zambia

1. CONTACTS WITH THE GOVERNMENT

- Renew contacts as soon as analysis begins
  - to align analysis with govt concerns
  - to involve govt personnel
- This will:
  - help to build govt ownership of the study
  - increase chances that recommendations following the analysis will suit govt's goals

2. ANALYSIS OF PETS

- Primary analysis should focus on original objectives :
  - measure leakage of funds (*wage, non-wage, capital*)*, on their way to service providers and analyze the causes
  - use simple average percentage and standard deviations
- Analyze equity in fund distribution:
  - understand systems of resource management at each levels and their weakness
  - simplify fund/input transfers
  - set formula for funds and timeline for receiving resources

*EXAMPLES OF LEAKAGE OF FUNDS

Country	Type	Sector	Leakage
Chad (2004)	PETS QSDS	Health	• 27% of non wage budgetary reaches regional health delegations • Less than 1% of non-wage budgetary allocated to regions reach local health centers
Ghana (2000)	PETS	Education and health	• Leakage estimated at 50% of non wage education expenditures and 80% of the non wage health expenditure • Leakage of salaries estimated at about 20%
Kenya (2004)	PETS	Education and health	• Leakage of funds received at the health center estimated at 38% • Leakage if users fees at the facility level estimated at 25% • More than 80% of schools did not receive their entitled amount of bursary funds

Source: Gauthier, 2005

3. ANALYSIS OF LEAKAGE

- Done by core team
- Two complementary tasks
  - analysis of leakage: locating* and measuring
  - analysis of causes to propose remedies
- Other analyses according to objectives (equity in the Zambia survey)

* LOCATING LEAKAGE

- At central, regional, district, delivery service unit
- Implications for policy:
  - *central:* budget management
  - *regional:* decentralization and consistency
  - *district:* pressure groups
  - *DSU:* poor capacity

4. LOCATING AND MEASURING LEAKAGES

- Comparing resources disbursed at various levels:
  - central
  - region
  - district
  - schools
- Calculating average differences between levels
- Determining how these differences vary over time and space
- Can they be explained by cheating*?

*MEANINGS OF LEAKAGE?

- Reference to administrative/ political setting is a must
- Transfer of funds follow a centralized/decentralized scheme
- Countries with autonomy at regional/ sub-regional, SDUnit
  - *interpretation issue:* rate below 100%, does it meant corrupt practices? What if above 100%?
  - fungibility of budgets
  - conflict between elected representatives and CSOs and the challenge of social control of expenditures

5. ANALYSIS OF CAUSES

- Analysis of variations between delivery service units -U, between districts, etc.
- Why is leakage or staff absence higher in some U than in others?
- Look for correlation between factor observed and other variables (QSDS + other sources)
- Answer research questions and test hypotheses (developed during preparation)

6. IN-DEPTH ANALYSIS

- Relate to other analysis such as benefit incidence analysis, based on household data on consumption and cost of providing
- Who is benefiting from public spending on education?
- What is the share of total benefit accruing to poorest quintile and richest quintile ?
- PETS showed different share of total benefit from education/health spending

EX. 1 - ANALYSIS OF LEAKAGE: MADAGASCAR 2003

- Leakage of cash funds at school levels low: 8-10%
- Leakage of material more common: 28% of schools declare receiving less material than stated by district
- Leakage associated with remoteness: 56% of remote schools suffer , only 21% of schools close to communes
- Schools uninformed about decisions taken higher up
- Only 35% of schools know what they are supposed to receive from district (CISCO)

EX 1 - ANALYSIS OF LEAKAGE: MADAGASCAR (*ctd.)*

- Lack of information, dysfunctional accounting system, absence of allocation rules at the district and school level increase incentives for leakage
- Tentative explanation:
  - only district officials know amounts transferred
  - they keep part of school grants for other uses
  - only large, rich, well-staffed schools close to CISCO can compel district officials to give them more

EX. 2 - ANALYSIS OF LEAKAGE: PERU

- A high proportion of funds sent by central level were spent for IU administrative costs
- 50% of non-wage funds reach the schools
- PETS found that in 25 percent of schools the IU had not paid electricity as it should
- For consumption goods the average leakage was small (2.5 percent)

EX. 2 - ANALYSIS OF CAUSES: PERU (*ctd.)*

- Why is non-wage fund leakage much lower in Peru than in Madagascar?
- SIAF system renders budget disbursement process quite transparent
  - each IU expense must be registered through SIAF before the resource is transferred
  - these amounts are immediately known and can be accessed by the general public

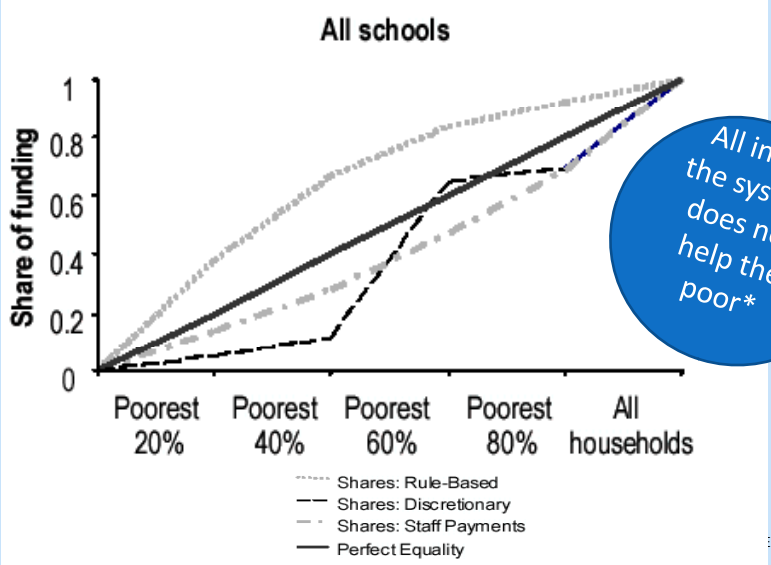
EX. 3 - ANALYSIS OF LEAKAGE: ZAMBIA

- PETS found major difference in leakage
  - 90% schools received rule-based allocations
  - 20% only received any discretionary fund
- Discretionary funds are released in very large amounts
  - are they provided for school building projects?
  - or have schools receiving these funds greater bargaining power with district administration?
  - the study is not conclusive on this point

EX. 3 - ANALYSIS OF EQUITY: ZAMBIA (*ctd.*)

- Relate to other analysis such as **benefit Incidence Analysis** based on household data on consumption and cost of providing
- Rule-based funds favour poorer schools
  - no leakage, $600 per school
  - schools in poor, rural areas (small enrolments) receive higher rule-based funds per pupil
- Discretionary funds favour richer schools
  - go to wealthier schools in rural districts
  - wealth neutral in urban districts
- Rule-based = 30% Discretionary = 70%

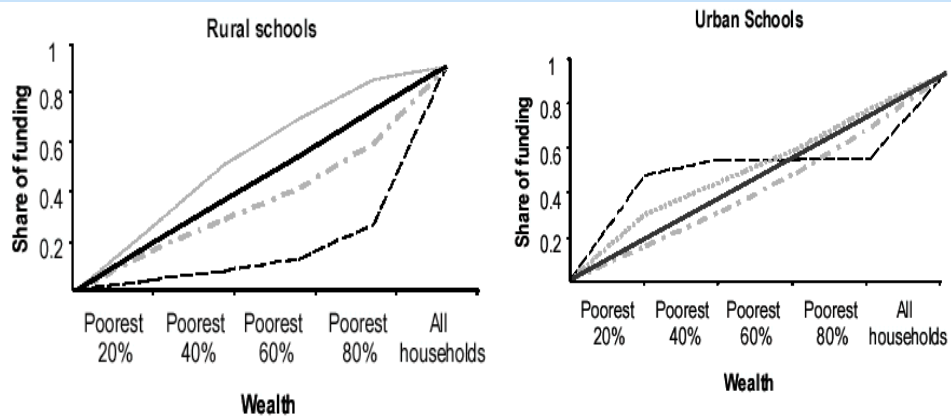
EX. 3 - ANALYSIS OF EQUITY: ZAMBIA (*ctd.*)



Source: World Bank

All in all, the system does not help the poor*

EX. 3 - ANALYSIS OF EQUITY: ZAMBIA (*ctd.*)



Source: World Bank

Course on PETS
Kampala, March 2009

INFORMATION REPORTING AND DISSEMINATION

Jacques Hallak & Muriel Poisson

PREAMBLE: REMINDER!

- PETS: information gathering tools for policy makers
- *First step:* to establish broad based consultation with country stake holders, government officials and leaders of civic society organizations
- *Second step:* to publicize the agenda of implementation of the PETS and announce the expected dates of the findings of the survey
- *Third step:* to share information with stake holders (careful and well structured approach needed)

OUTLINE OF THE PRESENTATION

1. Information strategy plan
2. Reporting
3. Synthesis and dissemination
4. Public targeted
5. Why information campaigns matter?
6. Follow-up action: capacity building

1. INFORMATION STRATEGY PLAN

- Build anticipation of surveys information during planning and survey work stages
- Select the Task Force and likely consumers of the findings (preparation of a mailing list)
- Share all the aspects of the survey at appropriate stages, in a progressive manner
- Prepare a report clearly explaining the results and recommendations and present it to the Task Force and other consumers
- Avoid personal and institution specific findings*
- **Renew contacts with govt. when first results available**

* PETS ARE NOT POLICE INVESTIGATION!

- Reliability of statistical surveys based on:
  - accurate approaches, technically sound
  - the rule of confidentiality (*supported by law in most countries*)
- Credibility of PETS dependent on the capacity of the core team:
  - to avoid any risk of collusion of interest in implementation
  - to limit strictly any opportunity for access to data collected
- *Challenge:* when the flows of funds tracked transit through very limited number of stake holders

2. REPORTING

- Produce summary report as soon as possible:
  - main findings of the survey
  - initial policy recommendations
- Later, produce full report:
  - findings of the survey
  - detailed analysis of cause and effect
  - final policy recommendations

2. REPORTING (*ctd.)*

While other members of the team continue data analysis, role of the coordinator for public relations:

- To prepare an interim summary report
- To organize press conference and meetings with politicians, decision-makers, PTA representatives, Union leaders
- To encourage the writing of articles on the first results of the survey in newspapers and other printed media, or write them
- To stimulate and/or organize radio/TV broadcasts to popularize the first results of the survey

3. SYNTHESIS AND DISSEMINATION

- Publish findings as early as possible:
  - official communications, speeches, conferences
  - mass media: press, radio, TV, etc.*
- Experience shows this can mobilize people:
  - set off government action as in Uganda
  - later result in a decrease of corruption

* NEWSPAPER CAMPAIGN IN UGANDA

- Main national newspapers and their local language editions
- Monthly transfers of capitation grants to districts published in newspapers since 1996
  - parents know what there entitlements are
- Posters at district HQs announcing the date and amount funds received
- Schools required to maintain public notice boards/posters displaying receipts
  - parents know what the actual receipts are
- Subsequently expanded to other sectors

4. PUBLIC TARGETED

Three different publics:

- The consumers-clients of the sector, i.e. in education: parents of school children and the PTAs that represent them
- Decision-makers, politicians and government officials
- Deliver service providers and their formal representatives (Unions)

5. WHY INFORMATION CAMPAIGNS MATTER?

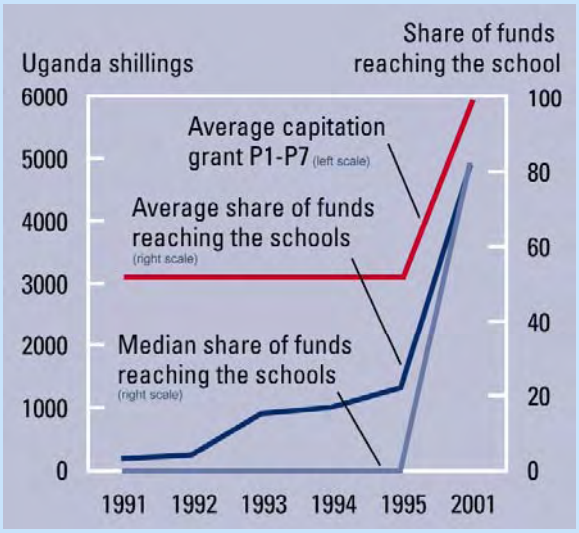
- Government:
  - By using newspaper advertisements to inform the users of their entitlement, government signaled that it considered primary education important
  - It also signaled strengthened oversight
- Communities:
  - By giving users access to information on the grant program, health official, head teachers and parents could themselves monitor the local administration and voice complaints if funds did not reach the health centers and the schools

* LESSONS FROM UGANDA

- Through an inexpensive policy action, mass information through the press, Uganda has managed dramatically to reduce capture of a public program aimed at increasing primary education
- Because the poor were less able than others to claim their entitlement from district officials before the campaign, but just as likely in 2001, they benefited most from it

Public access to information is a powerful deterrent of local capture

* SCHOOLS RECEIVED MORE AFTER THE CAMPAIGN



Source: Reinikka and Svensson (2001), Reinikka and Svensson (2003a)

* EVIDENCE BASED ON DISTRICT AVERAGES

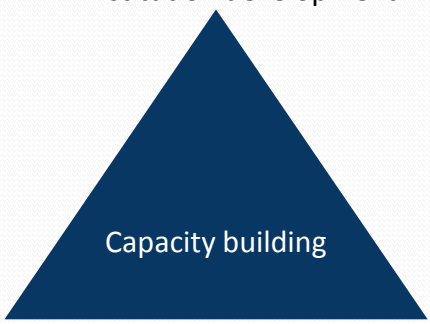
- Student enrollment increased significantly faster in districts with high newspaper circulation
- The newspaper campaign had a large effect on student performance
- On average, pupils in districts that were highly exposed to the campaign scored 6 percent higher in the Primary Leavers' Exam than pupils in districts that were less exposed

* DIFFERENCES-IN-DIFFERENCES ESTIMATE

Group	Year		
Panel A: Campaign experiment (no. observations: 444)	1995	2001	2001-1995 difference
Access to newspapers	24.5*** (2.87)	83.7*** (1.94)	59.2*** (3.46)
No access to newspapers	29.6*** (5.40)	75.0*** (3.11)	45.4*** (6.22)
Access-no access difference	-5.12 (6.10)	8.68** (3.66)	13.8** (7.13)

Source: Reinikka and Svensson (2001)

6. Follow-up action: capacity building



6. Follow-up action: capacity building

INSTITUTION DEVELOPMENT

- Transfers to health clinics (primary schools) displayed on public notice boards in each clinic (school) and district centre monitored by the MOH (the MOE)
- Central supply of construction and other materials replaced by the community-based procurement
- Effort made to institute basic public accounting systems that include districts
- Detailed data on spending on staff salaries available at central level

6. Follow-up action: capacity building (*ctd.*)

HUMAN RESOURCE DEVELOPMENT

Training in:

- Survey methods
- Financial audit
- Research in social sciences
- Literacy in relevant sector (education, health, public construction, energy, etc.)

6. FOLLOW-UP ACTION: CAPACITY BUILDING (*ctd.*)

CONDUCIVE ENVIRONMENT

- Accountability and information dissemination legally provisioned
- Monthly transfers of public funds to districts reported in the main newspapers and broadcast on radio
- Publicity and wide dissemination of penalties for distorted behaviours
- Incentives to promote locally based citizen's associations : pressing for information , lobbying…

CONCLUDING REMARKS

Need to integrate PETS:

- In the overall administrative process
- In the public communication policy
- Crucial role to be played by the "**social control**" exerted by communities

IIEP/ITC 305 – Group works
Paris, 04 March 2009
Original: English

International Institute for Educational Planning
7-9, rue Eugène Delacroix, 75116 Paris, France

International course on:
"Public Expenditure Tracking Surveys"
(PETS)

Kampala: 09-13 March 2008

Group works

IIEP Project on:
"Ethics and corruption in education"

GROUP WORK OVERVIEW

LEARNING OBJECTIVES

1. To develop awareness of the magnitude and harmful consequences of corruption in the public sector.

2. To train participants in the design and implementation of *Public Expenditure Tracking Surveys* (PETS) aimed at measuring the magnitude and analyzing the causes of public fund leakage.

3. To call attention on the benefits of organizing such surveys and disseminating their results to fight corruption.

At the end of the course, participants should be able to participate meaningfully in all the steps of a PETS.

COURSE CONTENT

This will be a hands-on, practical course, which will consist mainly of group work. Groups of 8-10 participants will be assigned exercises to train them in the major tasks involved in the preparation, design, implementation and analysis of a PETS, as well as in using its results to alleviate corruption. The country concerned will be Ruritania, a fictitious country.

The tasks assigned will be divided into four sections:

- *Section 1:* Designing the PETS
- *Section 2:* Implementing the PETS
- *Section 3:* Analysis and follow-up.

Group work on each section will be preceded by a lecture presenting the methods used by PETS, giving concrete examples, and describing the tasks to be performed by the working groups. At the end of group work on each section, a plenary meeting will discuss the papers produced by each group and present other possible solutions to the exercises.

SOURCES

Participants will receive the following documents:

- 'Public Expenditure Tracking Surveys', by Ritva Reinikka and Nathaniel Smith, IIEP UNESCO 2004;

- Information on Ruritania.

Group work 1
Objectives and issues

LEARNING OBJECTIVES

To apply the approach recommended in the course documents (especially in 'Public Expenditures Tracking Surveys' by R. Reinikka and N. Smith) on a concrete example.

EXPECTED RESULTS

At the end of the exercise, participants will be familiar with the methods used to define the objectives of and the major issues to be examined by a PETS.

EXERCISE

Suppose your group is preparing a PETS concerning education, health, infrastructure, etc. in Uganda and has been asked to write a *preliminary paper* justifying and briefly describing the survey. As a first contribution to this paper, your group will define the objectives and main issues of the PETS by answering the questions below.

1. Formulate the objective(s) of the PETS. (Of course this formulation might be changed after in-country consultations). Your formulation should justify the PETS, i.e. explain why the survey is needed and why it would benefit the country and the people of Uganda. This justification should be supported by country data.

2. Formulate two key research questions that the PETS will have to explore concerning the funding and delivery of public services (education, health, infrastructure, etc.) in Uganda.

3. Formulate your tentative answers to the research questions.

4. Briefly describe the various investigations the survey will have to conduct in order to meet these objectives.

SOURCES

Before discussing the group's response with your colleagues, please read attentively:

- point 1 a and b of Chapter 4 in the book 'Public Expenditure Tracking Surveys' by Reinikka and Smith (p.p. 47-50).

Group work 2
Resource flows

LEARNING OBJECTIVES

To make a preliminary analysis of the flow of government resources on a concrete example, and to discuss the opportunities such a structure offers for corruption.

EXPECTED RESULTS

At the end of the exercise, trainees will be able to analyze the flow of public funds for education, health, infrastructure, etc. in a country and detect the opportunities it offers for corruption.

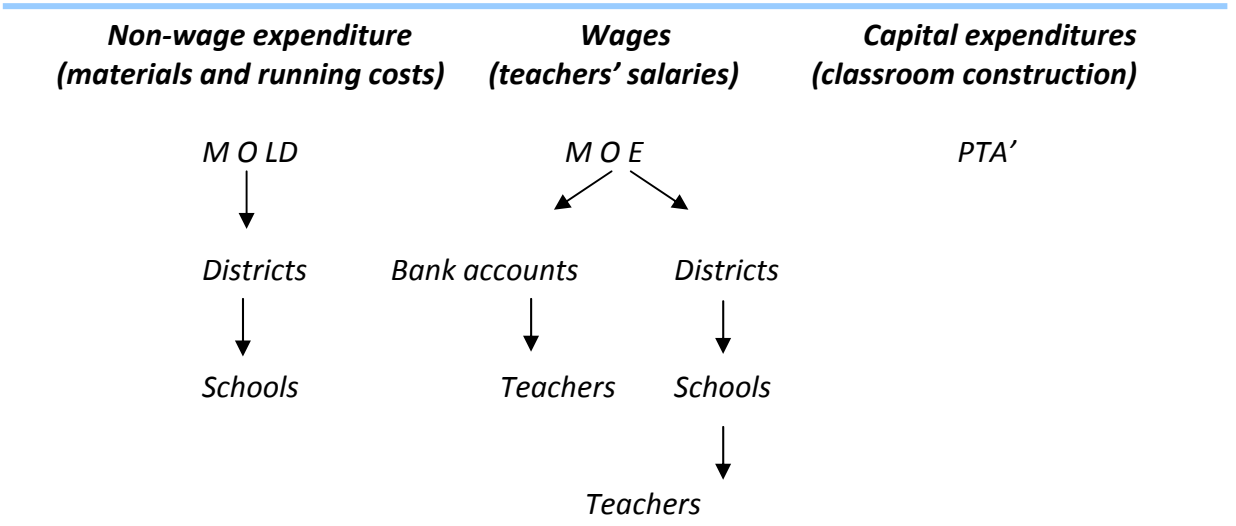
EXERCISE

In this second exercise, your group will contribute to the PETS *preliminary paper* for Uganda by analyzing the structure of the government's resource flow for education, health, infrastructure, etc. Your analysis could, among others, include the following points:

1. Draw up a provisional graph of the government's resource flow the sector considered in your group. An example of a similar graph for the education sector is shown below.

2. On the basis of your experience, discuss the opportunities for corruption offered by this pattern of resource flow. What corrupt practices could arise from such opportunities?

3. Write a one-page paper summarizing the views of your group about opportunities for corruption in Ruritanian education, health, infrastructure, etc.



Group work 3
Sampling

LEARNING OBJECTIVES

To train participants in the development of a representative sample by the stratification method.

EXPECTED RESULTS

At the end of the exercise, trainees will be able to participate usefully in the development of adequate samples not only for PETS, but also for a variety of social surveys.

EXERCICE

Your group will contribute to the *preliminary paper* concerning the PETS by preparing a provisional *sampling strategy* for the survey. For country data please refer to the paper "Information on Ruritania" and to the annexed map.

1. Define the criteria that will govern the sampling strategy: representativity of the sample, feasibility and cost of the survey, for instance.

2. Determine the structure of the sample: regional grouping, division into urban/rural areas, districts selected, number of schools/health centers, etc. per district etc.

3. On the basis of the structure thus determined, and of a list of all schools/health centers, etc. in a district with some of their main characteristics (size, rural/urban, etc), select the schools/health centers, etc. to be included in the sample. The list of schools/health centers, etc. will be distributed to each group. The random selection of schools/health centers, etc. may be done either by drawing school/health centers, etc. numbers out of a hat, or by using a stream of randomized integers such as the one reproduced below (available at www. random.com).

4. Write a short paper explaining what you have learned and the difficulties met, to be presented at the Plenary meeting.

You will find below an example of randomized integers:

12	42	3	90	36	89	45	18	60	87	52	21	68
39	44	91	72	3	64	63	99	41	85	50	36	84
67	54	92	13	59	4	39	11	28	17	38	7	33
39	55	88	27	8	18	41	28	100	19	73	72	90
22	92	9	49	49	12	39	83	64	12	34	100	19
13	83	20	10	57	40	83	37	4	72	97	21	65
45	29	60	65	18	75	76	21	80	63	5	72	94
36	21	81	77	63	73	71	73	68				

SOURCES

- For guidelines on sampling and stratification, see point 2 of Chapter 4 in the book 'Public Expenditure Tracking Surveys' by Reinikka and Smith (p.p. 54-57).

Group 4
Questionnaire design

LEARNING OBJECTIVES

To give participants an opportunity to study a PETS questionnaire in depth, and learn how to adjust it to a different public system.

EXPECTED RESULTS

At the end of the exercise, trainees will be able to participate meaningfully in the preparation of a PETS questionnaire.

EXERCISE

In this exercise, as part of the *preliminary paper*, your group will propose an adaptation of the *Sample questionnaire* to be used for the Uganda PETS.

First read attentively the Sample questionnaire (on education or on health) that has been distributed to you. Then your group will meet and do the following tasks:

1. Delete redundant questions:

   - either because they are not applicable to Uganda,
   - or because they would be unnecessary given the PETS's objectives and key research questions as defined in Exercise 1.

2. Modify questions to adapt them to Uganda as required.

3. Add questions that you consider important for the PETS and have been overlooked in the sample questionnaire.

4. Write a short paper explaining what you have done and why.

SOURCES

- As a reference, a *Sample questionnaire on education* is available in Appendix 1 of the book 'Public Expenditure Tracking Surveys' by Reinikka and Smith (p.p. 109-133).

- As a reference, a *Questionnaire for hospitals/health centers/clinics* (taken from Ghana) has also been distributed to you.

- For guidelines on questionnaire design, see point 2 of Chapter 4 in the book 'Public Expenditure Tracking Surveys' by Reinikka and Smith (p.p. 57-62).

Group work 5
Implementation and Monitoring

LEARNING OBJECTIVES

1. To train participants in making appropriate plans for hiring the staff necessary to implement a PETS.

2. To train participants in planning the activities of a PETS, as a first step in planning the resources required.

EXPECTED RESULTS

After the exercise, trainees will be able to contribute usefully to the recruitment of staff for a PETS, and to participate meaningfully in the planning of a PETS.

EXERCISE

Your group will continue its work on the PETS *preliminary paper* by estimating the staff required for the PETS. Your estimate will be based on: the data available about Ruritania; the sampling strategy you have proposed in the previous exercise; and a sample which covers 250 schools/health centers, and 20 districts.

- The survey will presumably be supervised by a Government Task Force composed of high-level officials. Do not include them in your estimates.

- Your estimates should as far as possible be supported by arguments, e.g. the experience of previous PETS. Make a realistic estimate of the staff needed to perform the various tasks involved, add a contingency allowance for unforeseen difficulties, but avoid wasting the scarce resources allocated for the survey.

- Do not forget that the staff will have not only to prepare and implement the survey, but also to monitor its implementation, enter, compile and analyze the data, prepare the report and make arrangements to disseminate the results.

1. Think about the kind of people you want as staff members: researchers from the University (e.g. sociologists), from the statistical institute, private consultants, students, patients, others? Remember that officials of ministries are not acceptable in a PETS because they are part of the public administration hierarchy. Please list the staff required as in the example below:

Category	Tasks	Education/ experience	Numbers
Researchers	Preparing, organizing, supervising survey	College degree, Experience of surveys	8
Enumerators	Data collection Data entry/compilation	Senior teachers Students	38

Note: This table is not a model but just an example showing how you could present your estimates.

2. Please list these activities in order of time from the earliest to the last. The list should include the number of institutions to be visited, the staff involved, and an estimate of the time required, allowing extra time for unforeseen difficulties. Do not forget to include staff and time for monitoring. The implementation period should not exceed 18 months.

Activity/ level	N° institut. visited	Staff involved	Time required
Data coll/ Central	20	4 researchers	4 weeks
Data coll/ Regions	20	4 researchers	4 weeks
Data coll/ Districts	40	4 researchers 4 enumerators	8 weeks
Data coll/ Schools or health centers	200	4 researchers + 40 enumerators	16 weeks
Data compilation		4 researchers + 40 enumerators	4 weeks

3. Draw up a bar graph of the time schedule showing the distribution of activities over time.

Activity/ level	2009						2010					
	July	Aug.	Sep	Oct	Nov	Dec	Jan.	Feb.	Mar.	Apr.	May	Jun.
Data coll/ Central	**XXX**											
Data coll/ Regions		**XXX**										
Data coll/ Districts			**XXX XXX**									
Data coll/Schools or health centers		**XXX XXX XXX XXX**										
Data compilation				**XXX**								

Notes:

1. *The above table and graph are not models but just examples showing how you could present your proposals.*
2. *In the above graph, the researchers in charge of a regional survey team is supposed to divide his/her time between the collection of region and district data and the monitoring of school/health centers visits by enumerators.*

SOURCES

For guidelines on PETS implementation, see point 3 of Chapter 4 in the book 'Public Expenditure Tracking Surveys' by Reinikka and Smith (p.p. 62-65).

Group work 6
Data analysis

LEARNING OBJECTIVES

1. To give trainees a first hand experience of how to calculate the leakage of funds on a spreadsheet.

2. To teach those who have never worked on a spreadsheet the basic calculation formulas.

EXPECTED RESULTS

At the end of the exercise, trainees will be able to participate meaningfully in the estimation of leakage from a set of data collected from questionnaires.

EXERCISE

In this exercise, you will make a first analysis of data from 77 questionnaires. Your group will calculate the average difference between the government subsidy received by schools and the subsidy they were supposed to receive, in other words the subsidy leakage. Then you will learn how to calculate the standard deviation, which measures the degree of dispersion of a set of data. You will do these calculations using the EXCEL mathematical formulas: e.g. the formula used to add up figures contained in cells A2 to M2 is: =SUM(A2:M2).

Meet together in the group to prepare a short paper to present your conclusions about the Exercise, what you have learned and the difficulties met, at the Plenary discussion.

Open the EXCEL file entitled *"Group work 6"*. The file contains a Table with the following data from 77 school questionnaires (a row for each school):

Column A	School number (the names of schools have been omitted)
Column B	Province
Column D	District
Columns E-T	Enrolments by grade and sex for last year
Column U	Total enrolment; e.g. U2=SUM(E2:T2)
Columns V-Y	Govt. subsidy received in quarters 1, 2, 3 and 4 last year
Column Z	Total Govt. subsidy received; e.g. Z2=SUM(V2:Y2)
Column AA	Govt. subsidy received per pupil; AA2=Z2/U2
Column AB	Official Govt. subsidy per pupil (40 currency units)
Column AC	Official amount of Govt. subsidy for the school
Column AD	Leakage (Official subsidy minus subsidy actually received)
Column AE	Leakage percent of the official amount of Govt. subsidy

Column AF	School fees
Column AG	Project fees
Column AH	Other fees
Column AI	Total fees charged to parents
Column AJ	Total fees per pupil
Column AK	Percentage qualified teachers

1. Your first task is to fill columns AC, AD and AE, which have been left blank, by manipulating data in the previous columns with EXCEL arithmetic operators (+, -, /) and formulas (e.g. SUM). AC2 is evidently equal to the school enrolment U2 multiplied by 40, so AC2 =U2*40; etc. You will quickly learn by practice how to use these formulas and copy them from cell to cell.

2. Also fill the bottom cell (80) of columns AC and AD to get the total of each column, e.g. AC80 =SUM(AC2:AC78).

3. Calculate the standard deviation of the set of data on leakage percent in column AE. The standard deviation is an algebraic expression that tells you how tightly the various data in a normally distributed set are clustered around their average. If the standard deviation is small in relation to the range covered by the data, it means that the data are tightly bunched together; if the S.D. is large, then the data are dispersed. The S.D. is particularly useful to compare the distributions of two or more sets of data. In the EXCEL spreadsheet, you will calculate the S.D. for the data in column AE by using the function = STDEV(AE2:AE78).

Group work 7
Dissemination of PETS results

LEARNING OBJECTIVES

To increase the participants' conviction of the need for concerted efforts to disseminate the results of the PETS. To review and discuss the various means available for this purpose.

EXPECTED RESULTS

At the end of the exercise, participants will be more convinced of the need to ensure the dissemination of PETS results and better prepared to plan and implement this essential phase of the survey.

EXERCISE

Your group will prepare a section of the PETS *preliminary paper* presenting a plan for the dissemination of the survey's results for a period of two months.

To start with, the following questions should be examined when preparing your plan:

- Who will be involved in the dissemination of the survey's results?
- Who should dissemination activities be addressed to?
- When will the dissemination activities begin? Should one wait until the summary report is published?
- Which activities would be the most beneficial and should get the preference given budget limitations?

Your plan could include such activities as:

- meetings with political leaders, government officials, particularly from the Ministries of Finance, Education, Health, Infrastructure, etc.;
- meetings with representatives of the civil society, such as teachers' unions, PTA's, NGO's, journalists, influential people;
- articles in newspapers and other printed media;
- radio and TV broadcasts and interviews;
- publication of excerpts of the summary survey report, or of its main conclusions, subject to the Government's agreement; etc.

Do not forget that the preparation of such activities takes time, particularly if audio-visual media or aids are to be used.

Finally, you should try to establish an accurate budget for the implementation of your plan.

SOURCES

Before discussing the group's response with your colleagues, you can read the experience of Uganda's information campaign in 1996, point 4 of Chapter 5 in the book 'Public Expenditure Tracking Surveys' by Reinikka and Smith (p.p. 76-78).

SAMPLE QUESTIONNAIRE (EDUCATION)

PUBLIC EXPENDITURE TRACKING SURVEY

PRIMARY SCHOOL SURVEY

International Institute for Educational Planning

World Bank

Section I. Identification

Question		*Unit*	*Value*
1. Sample code		Code	
2. Name of school		name	
3. Province		name	
4. District		name	
5. Day or boarding		1=Day, 2=Boarding 3=Mixed	
6. Private, public, religious		1=Public (Government) 2=Private 3=Religious, 4=Community 5=Other	
7. How long is the school day?	a. for grades 1-3	Number of hours	
	b. for grades 4-5		
	c. for grades 6-7		
8. Boys or girls		1=Boys, 2=Girls, 3=Mixed	
9. Date of interview		day, month, year (dd,mm,yyyy)	
10. Starting time of interview		(e.g., 14.00)	
11. Telephone Number		Telephone number 0=No phone	

Section II: Number of students in the school
(to be obtained from the school records)

Question	*Unit*	*Value*		
At this school, what is, or was, the number of…		…at the start of 2003?	…at the end of 2003?	…at the start of 2004?
1a. …students in grade 1…	no. students			
1b. Of these, how many were girls?	no. students			
2a. …students in grade 2…	no. students			
2b. Of these, how many were girls?	no. students			
3a. …students in grade 3…	no. students			
3b. Of these, how many were girls?	no. students			
4a. …students in grade 4…	no. students			
4b. Of these, how many were girls?	no. students			
5a. …students in grade 5…	no. students			
5b. Of these, how many were girls?	no. students			
6a. …students in grade 6…	no. students			
6b. Of these, how many were girls?	no. students			
7a. …students in grade 7…	no. students			
7b. Of these, how many were girls?	no. students			
8. …total students in class today…	no. students			
9a. Total number of students participating in primary leaving exam in 2003	no. students			
9b. Of these, how many were girls?	no. students			
10a. How many students received a passing mark on the primary leaving exam in 2003?	no. students			
10b. Of these, how many were girls?	no. students			

Section III: Personal information about head teacher
(to be obtained from the school records)

Question	*Unit*	*Value*
1. Name		
2. Gender	1=Male 2=Female	
3. Age	Years	
4. Are you the head teacher?	1=Yes 2=No	
5. If not, what is your position?	1= Deputy Head Teacher 2= Teacher 3= Other	
If respondent is not head teacher, fill in questions 6-9 *about the head teacher,* or leave them blank if the information is not known for certain.		
6. Number of years teaching	Years	
7. Number of years as head teacher	Years	
8. Number of years as a head teacher at this school?	Years	
9. Highest level of education completed?	1 = high school 2 = 1-yr teacher diploma 3 = 2-yr teacher diploma 4 = some university 5 = university degree 6 = post-graduate work	

Section IV: Teachers

(to be obtained in consultation with the head teacher with access to school records)

Question		*Unit*	*Value*
1. How many teaching positions are officially allocated to this school?		Number	
2. How many of the official positions are actually filled?		Number	
3. How many teachers are present and teaching in this school *today?*		Number persent	
4a. Have any teachers been fired or laid off in the past twelve months? How many?		Number fired	
4b-d. For each of the teachers most recently fired (up to three, from the past twelve months as stated in 4a), what was the reason for firing the teacher?	4b	1= Absenteeism 2= Abuse of children 3= Bad teaching 4= Services no longer needed / redundant 5= Conflicts with staff 6= Other	
	4c		
	4d		

5. Please fill out the table below for all the school's teachers.

	5a#	5b#	5c#	5d#	5e#	5f#	5g#	5h#	5i#
ID	Name	What grade does he/she teach?	Gender	Age	Position	Years em-ployed at this school	In-depth interview	At school today?	If no, why is the teacher away?
		Grade	1=M 2=F	Yrs	1= Senior teacher 2= Teacher 3= Trainee 4=Other	Years	1=Yes Others blank.	1=Y 2=N	1=Sick 2=Training 3=Adminis-trative duties 4=Approved leave 5=Don't know 6=Other
1	(Head teacher)								
2									
3									
4									
5									
6									
7									
8									
9									
10									

Continuation of Question 4 if necessary

	5a#	5b#	5c#	5d#	5e#	5f#	5g#	5h#	5i#
ID	Name	What grade does he/she teach?	Gender	Age	Position	Years em-ployed at this school	In-depth interview	At school today?	If no, why is the teacher away?
		Grade	1=M 2=F	Years	1= Senior teacher 2= Teacher 3= Trainee 4=Other	Years	1=Yes Others blank.	1=Yes 2=No	1=Sick 2=Training 3=Adminis-trative duties 4=Approved leave 5=Don't know 6=Other
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

From the teacher list above, select *two* teachers if your school has *less than ten teachers* altogether, *three* teachers if your school has *between ten and twenty* teachers, and *four* teachers if your school has *more than twenty* teachers. We want to select teachers randomly but also to get a sample that covers different grade levels. Start with the teachers that appear *last* in an alphabetical list. Select the number specified by the size of your school, but do not select two teachers that fall into the same column in the table below. For example, if the last two teachers in the alphabet teach in grades 5 and 6, drop the second one and select the next teacher. Thus in large schools, all four columns will be filled in, but in smaller schools one or two at random will be left blank.
IF THE DESIGNATED TEACHER IS NOT PRESENT, PLEASE DO *NOT* SELECT ANOTHER TEACHER INSTEAD. This interferes with the study's techniques of statistical randomization.

			a	b	c	d
		Units	Grade 1 or 2 teacher	Grade 3 or 4 teacher	Grade 5 or 6 teacher	Grade 7 teacher
6. Born in this province?		1= Yes 2= No				
7. Born in this district?		1= Yes 2= No				
8. What is the highest level of education completed by each of these teachers?		1= Less than high school 2=High school diploma 3= Some college 4= College degree 5= Beyond college				
9. Is this teacher present today?		1= Yes 2= No				
If no:	10. How long has the teacher been away?	Number of days				
	11. Why is the teacher away?	1= Sick 2= Training 3= Administrative duties 3= Approved leave 4= Don't know 5= Other				
	12. How is the school covering classes?	1= Use relief teacher 2= Combine classes 3= Set the students unsupervised work 4= Set the students work and visit now and then 5= Let them play sports 6=Send students home				
13. How many days has this teacher been absent this year?		Number of days				
14a. How much does the teacher receive in salary each month?		Currency figure				

14b. How much does the teacher receive in allowance each month?	Currency figure				
14c. How much is deducted from each payslip automatically?	Currency figure				
14d. So the total amount is [add 14a and 14b, then subtract 14c]	Currency figure				
15. How is the teacher paid?	1= Check 2= Direct deposit 3= Cash				
16. Who pays the teacher's salary?	1= Natl. govt. 2= School 3= Community 4= Other				
17. Who pays the teacher's allowance?	1= Natl. govt. 2= School 3= Community 4= Other				
18. Prices and wages vary considerably across different parts of this country? What is a typical hourly wage for a manual laborer in this area?		Currency figure			
19. Do you think it is possible to support a family only on the salary that this teacher earns?	1=Yes 2=No				
20. Does the teacher live in school-provided housing?	1= Yes 2= No				
If yes 21. What is the rental value of the house per month?	Currency per month				
22. In your estimate, how many hours per week does this teacher work *at this school*?	Number of hours				
23. How many hours per week is this teacher supposed to work *in the classroom*?	Number of hours				
24. Does this teacher have another job outside of school?	1= Yes 2= No				

Section V: Facilities

(to be obtained in consultation with the head teacher)

Question		*Unit*	*Value*
1. How many classrooms made of high-quality materials are there in this school?		Number	
2. How many classrooms made of low-quality materials are there in this school?		Number	
3. How many classrooms have a blackboard?		Number	
4. How many classrooms have a roof that leaks when it rains?		Number	
5. How many classrooms have a chair *and* a table for the teacher?		Number	
6. How many classrooms have storage space that can be locked at night?		Number	
7. Does this school have a library?		1=Yes 2=No	
If yes	8. Estimate the number of books.	Number	
9. Who owns the land used by the school?		1=Customary 2=State 3=Church 4=Board of Management member 5=School 6=Other	
Utilities			
10. Are there enough working toilets for the students to use?		Number	
11. Are there separate toilet facilities for girls?		Number	
12. How many of the classrooms in this school have electricity?		Number	
13. How many days last month did you experience some kind of power shortage?		1= None 2= One 3= Two to eight 4= About half the time 5= Most of the time 6= No power at all	
14. What is the main source of drinking water at this school?		0=None 1=Rain water tank 2=Spring / lake / river 3=Well / Bore hole 4=Piped 5=Other	
15. Are the students able to drink water from that source today?		1=Yes 2=No	

16. Was water available all year round from that source in 2002?	1=Yes 2=No	
17. Does the school have a playground or a sports area?	1=Yes 2=No	
18. Is the school surrounded by a wall or fence?	1=Yes 2=No	
19. Does the school have a specialist science classroom?	1=Yes 2=No	
20. Does the school have a kitchen or a cafeteria?	1=Yes 2=No	
21. How do the students each lunch? (NOTE: If the answer differs by grade level, answer for students in grade 5.)	1= Free school lunch provided at cafeteria 2= Students may pay for school lunch or bring their own 3= Students bring their own lunch and eat at school 4= Students are sent home for lunch and then come back 5= School day ends before lunch time 6= Other	
22. Does the school have a staff-room?	1=Yes 2=No	
23. Does the school receive a newspaper?	1=Yes 2=No	

Section VI. Location, Distance and School Choice

(to be obtained in consultation with the head teacher)

Question		*Unit*	*Value*
1. Is this school located in an urban or a rural area?		1=Urban 2=Rural	
2. What is the population of the village or town in which this school is located?	1=Not in village or town / Less than 100 2=Between 100 and 500 3=Between 500 and 2,000 4=Between 2,000 and 5,000 5=Between 5,000 and 20,000 6=More than 20,000		
3. What other villages or towns do students at this school come from? (List up to three, ranked according to which send the largest number of students to this school.)		Town name	a. b. c.
4. About how many students come from each of the villages listed in question 3?		Number	a. b. c.
5. How far away is each of the villages listed in question 3?		Kilometers	a. b. c.
6. How would you get to each of the villages listed in question 3?		1=Walk 2=Bus 3=Train 4=Car 5=Animal 6=Other	a. b. c.
7. Using the mode of transportation chosen in question 6, about how long would it take to get to each of the villages listed in question 3 from this school?		Hours and minutes	a. b. c.
How far from this school is the nearest of each of the follo-wing:	8. high school or secondary school	Kilometers	
	9. public transport	Kilometers	
	10. health post / clinic	Kilometers	
	11. public transport	Kilometers	
	12. paved road	Kilometers	
	13. bank	Kilometers	

13. Are there any schools that local children could go to instead of this one?		1=Yes 2=No 99=Don't know	
If yes	14. Please list the nearest ones (up to three)	School name	a.
			b.
			c.
	15. What kind of school is each of these three schools, day or boarding?	1=Day 2=Boarding 3=Mixed	a.
			b.
			c.
	16. What kind of school is each of these three schools, private, public, or religious?	1=Public (Government) 2=Community 3=Private 4=Religious 5=Other	a.
			b.
			c.
	17. How far away is each of these three schools?	Kilometers	a.
			b.
			c.
	18. What are the main reasons that parents or children choose this school?	1=Proximity 2=Academic reputation 3=Ethnicity or religion 4=Cost 5=Other (specify)	

Section VII. Organization and Governance

(to be obtained in consultation with the head teacher)

Question			*Unit*	*Value*
1. Does the school have a Board of Management (BOM)?			1=Yes 2=No	
If yes	2. How many times did the BOM meet in 2002?		Number of meetings	
	3. How many times had the BOM met in 2003?		Number of meetings	
	4. When was the last BOM meeting?		Day, month, year (dd,mm,yyyy)	
	5. How many people are on the BOM?		Number	
	6. Which of these are represented on the BOM?	a. Teachers	1=Represented 2=Not represen-ted	a.
		b. Other staff		b.
		c. District representative		c.
		d. Parent representative		d.
		e. Churches / NGOs		e.
		f. Local politicians		f.
	7. What were the top two issues discussed at the *most recent* BOM meeting?		1=Discipline 2=Finance issues 3=Fees 4=School budget 5=Staff issues 6=Curriculum matters 7=Fundraising 8=Projects 9=Maintenance 10=Other	# 1 Issue
				# 2 Issue
8. Does the school have a Parent Teacher Association (PTA)?			1=Yes 2=No	
If yes	9. How many times did the PTA meet in 2002?		Number of meetings	
	10. How many times has the PTA met in 2003		Number of meetings	
	11. When was the last PTA meeting?		Day, month, year (dd,mm,yyyy)	

	12. What percentage of the parents attend?	0=Very few 1=Less than half 2=About half 3=More than half 4=About all	
School decision making			
Who has the most say in:			
13. Approving the budget		1=Head Teacher 2=Other Teacher 3=Other Staff 4=DEO or PEO 5=BOM 6=PTA 7=Local politician 8=Community 9=Other	
14. Designing the curriculum			
15. Setting the level of fees at this school			
16. Choosing the teachers to hire			
17. Assessing teachers			
18. Deciding on maintenance work at this school			

Section VIII. Supervision and Accountability

(to be obtained in consultation with the head teacher with access to the school records if necessary)

Question		*Unit*	*Value*
1. How many visits were made to this school by outside officials?	a. 2002	Number of visits	a.
	b. 2003		b.
	c. 2004		c.
2. What outside officials made visits to this school?	MULTIPLE ANSWERS ALLOWED		
	a. 2002	1=District educational officer 2=Provincial educational officer 3=Representative of national education inspectorate 4=Other	a.
	b. 2003		b.
	c. 2004		c.
Consider only visits by the representative of the inspectorate:			
3. How many times did the inspector visit in:	a. 2002?	Number of times	a.
	b. 2003?		b.
	c. 2004?		c.
4. What was the purpose of the inspector's last visit?		1=Personal inspection 2=Advisory visit 3=Compulsory inspection 4=Other	
5. At that time, did the inspector:	a. Meet with the head teacher?	1=Yes 2=No	a.
	b. Meet with teachers?		b.
	c. Meet with the BOM?		c.
	d. Meet with parents, the PTA or the community?		d.
	e. Observe classes?		e.
	f. Check school records?		f.
6. What kind of feedback was given at the end of that visit?	4a	0=None 1=Verbal report at staff meeting 2=Verbal report to head teacher only 3=Verbal reports to individual teachers 4=Written report for head teacher 5=Written reports to individual teachers	a.
	4b		b.
	4c		c.
7. Did you get any feedback in writing that was sent to the school at a later time?		1=Yes 2=No	
If yes	8. How long did it take to receive the written report?	Number of weeks after visit	

DATA SHEET

Section IX. School's Sources of Funding (to be completed in consultation with head teacher and school records)

Source	Were funds received from this source?		How much was the school *entitled to* from this source		How much did the school *actually receive* from this source		g. On what schedule were the funds from this source disbursed?	h. How much delay was there in receipt of these funds?	i. What procedure did the school go through to get this kind of funds?	j. Did this funding come ear-marked for certain categories of spending?	k. If so, what category or categories of spending was this source of funding intended for? (multiple answers permitted)
	a. (1) in 2003	b. (2) in 2004	c. (1) in 2003	d. (2) in 2004	e. (1) in 2003	f. (2) in 2004					
	1=Y 2=N	1=Y 2=N	Curren-cy figure	Curren-cy figure	Currency figure	Currency figure	1=All at once 2=Two or more tranches 3=Monthly 4=More often than monthly	1=None / On time 2=Less than two weeks 3=Between two weeks and two months 4=More than two months	1=Automatic (sent by mail or direct deposit) 2=School responsible for pick-up 3=Significant paperwork burden	1=Yes 2=No	1=Paying staff 2=Scholastic materials 3=Maintenance 4=Administration 5=Special programs 6=Construction or expansion of facilities 7=Other
1. National govt. capitation grants											
2. Other national govt. programs											
3. Local govt. support											
4. PTA Fees											

Source	Were funds received from this source?		How much was the school *entitled to* from this source		How much did the school *actually receive* from this source		g On what schedule were the funds from this source disbursed?	h. How much delay was there in receipt of these funds?	i. What procedure did the school go through to get this kind of funds?	j. Did this funding come ear-marked for certain categories of spending?	k. If so, what category or categories of spending was this source of funding intended for? (multiple answers permitted)
	a. (1) in 2003	b. (2) in 2004	c. (1) in 2003	d. (2) in 2004				1=Automatic (sent by mail or direct deposit) 2=School responsible for pick-up 3=Significant paperwork burden	1=Yes 2=No	1=None / On time 2=Less than 2 weeks 3=Between 2 weeks and 2 months 4=More than 2 months	1=Paying staff 2=Scholastic materials 3=Maintenance 4=Administration 5=Special programs 6=Construction or expansion of facilities 7=Other
	1=Y 2=N	1=Y 2=N	Curren-cy figure	Curren-cy figure	Currency figure	Currency figure					
5. Other fees											
6. Churches / NGOs / donors											
7. Fundraising											
8. Other sources											

Section X. What did the school spend its money on?

	In 2003				In 2004			
	a. How much was spent *in the school budget* on the item on the left?	b. Was money spent on this item that was not included in the budget?	c. If so, how much?	d. Did school receive any of this item *in kind* from outside sources?	e. How much was spent *in the school budget* on the item on the left?	f. Was money spent on this item that was not included in the budget?	g. If so, how much?	h. Did school receive any of this item *in kind* from outside sources?
	Currency figure	1= Yes 2=No	Currency figure	1= Yes 2= No	Currency figure	1= Yes 2=No	Currency figure	1= Yes 2= No
1. Administrative costs								
Facilities-related expenses								
2. rent on property								
3. maintenance of school building								
4. janitorial staff								
5. security staff								
6. utilities								
7. scholastic materials (textbooks, pens, etc.)								
Staff-related expenses								
8. teachers' salaries								
9. teachers' bonuses								
10. teacher training								

Section XI
Data sheet to calculate the value of in-kind support

From Central Government

Subject	*Number*
1. Textbooks	
a. English	
b. Science	
c. Social studies	
d. Mathematics	
2. Stationary	
a. Pens	
b. Chalk	
c. Notebooks	
d. Uniforms	
e. Other	

From Local Government

Subject	*Number*
3. Textbooks	
a. English	
b. Science	
c. Social studies	
d. Mathematics	
4. Stationary	
a. Pens	
b. Chalk	
c. Notebooks	
d. Uniforms	
e. Other	

Section XII. Quality of records (To be completed after the rest of the interview has been conducted.)

Question		*Unit*	*Value*
1. Does the school keep detailed records of receipts from its spending?		1=Yes 2=No	
If yes	2. Are these available for both 2003 and 2004?	1=Yes 2=No	
3. Does the school keep records of its receipts of income and subsidies from other sources?		1=Yes 2=No	
If yes	4. Are these available for both 2003 and 2004?	1=Yes 2=No	
5a. Did the records kept at this school enable you to answer the questions in Section IX confidently and accurately?		1=Completely confidently and accurately 2=Figures may be approximate, but generally I am quite confident 3=There may be some holes in the records which compromise the figures' accuracy 4=Not confident of the accuracy of figures: specify problems with providing the requested data in part b of this question (in the space below)	
6a. Did the records kept at this school enable you to answer the questions in Section X confidently and accurately?			
7a. Did the records kept at this school enable you to answer the questions in Section XI confidently and accurately?			
5b. If you answered "4" to question 5a, specify problems with records:			
6b. If you answered "4" to question 6a, specify problems with records:			
7b. If you answered "4" to question 7a, specify problems with records:			

Notes

About adapting the survey to your country: This sample questionnaire is designed to be rather abstract and general. Some of the specifics have been drawn from particular country experiences. In other cases, it used an abstract, general formulation of a question at the expense, perhaps of clarity. It is important that the questions be as clear as possible to respondents. Substitute local terminology as much as possible, to dispel any difficulty or ambiguity of interpretation that the questions as asked here may have in your country's context. The notes below give suggestions of specific ways in which the survey might be adapted to your country. They are not necessarily exhaustive.

I. (1) Sample codes for each school should be created centrally at the time the school sample is being prepared. They help analysts organize the data.
(6) The "types" of schools listed here draw from the experience of PETS in Uganda and Papua New Guinea. What are the main types of schools in your country? Adapt the answer choices so that they capture the major, clear distinctions in school types.

II. (8) and (15) Schools in your country may not include grades 1-7. This section should be adapted, so that the grade levels it asks about correspond to those represented in primary schools (or secondary schools if that is the PETS's focus).
(16) Questions like this one are best answered while the school day is going on, so that students can be counted.
(17) We assume here that there is a more or less standardized practice of offering a leaving exam at the end of grade 7. The general goal is to measure a "graduation rate" from primary school. In your country, leaving exams may not exist, or they may be highly standardized in which case it would be useful to get more detailed results in order to compare academic achievement across the country. There may be other tests that are worth asking about. Adapt the questionnaire to your own circumstances.

III. (6)-(8) These measure the head teacher's experience level. If there are other useful local ways to ascertain the head teacher's quality, adapt the questionnaire accordingly.
(9) Vocational and higher education differs markedly across countries. Adapt the answer choices so that they will make sense to respondents in your country.

IV. (1) and (2) These questions assume that the central government allocates a certain number of "posts" to schools, which may or may not correspond at any given time to actual teachers teaching and getting paid. This system exists in many developing countries. If it exists in your country, there may be a way to use local terminology and make the question clearer. If it does not exist, these questions may not make sense, and information about the number of teachers will have to be requested in a different way.
(3) and (4) Can teachers be fired? What for? A key part of an accountability system.
(5) This is one of the most elaborately structured questions in the questionnaire as presented here. The answer to a single question within section IV consists of an entire matrix. We use this here to lead into our selection of two to four teachers for a more in-depth analysis in questions 6-23.
(6) The process of selecting teachers offered here is rather complex and could be simplified. The advantage it offers is that analysts will be able to sort teachers by grade level, while it does not impose too large a burden on smaller schools participating in the survey. It also generates a natural "weighting" scheme, with larger schools more heavily represented, but this weighting scheme is a rough one and may not be adequate for many purposes.

V. Picture the buildings and grounds of a typical school in your country. What features would you expect to see? What features might vary? What would be the marks of a prosperous school? Of a disadvantaged school? Adapt the questionnaire accordingly.
(1) and (2) "High-quality materials" and "low-quality materials" are stand-ins for local materials: for example, "concrete" may be a high-quality material in your country context, and "bush material" a low-quality material. It is necessary to substitute specific physical materials here because the present categories are subjective.

VI. (3)-(5) If you want to investigate the effects of school location more thoroughly, you might create village and town ID numbers, which would then help analysts explore the effect of distance and possibly of school choice more thoroughly.
Sections VII-XII: Issues of school governance and patterns of funding differ enough among countries that the sample questionnaire can only give general guidelines. This part of the question will require especially thorough and thoughtful adaptation.

VII. (13)-(18) These questions make an effort to get a clear picture of the decision-making process within your school. However, in current form they remain somewhat "subjective." You can do better for your own country by coming to the process of questionnaire design with some knowledge of local procedures and practices. School governance is at the heart of issues of accountability, and go far to determine how many opportunities for corruption there are, and who gets them, so this question should be designed carefully to make sure the data generated are reliable and forceful.

IX. After collecting the number of each of the items listed here, the price of these goods at the national level should be found out. The number of books purchased should be multiplied by the price to get a figure for the value of books purchased.

WORKSHOP ON PUBLIC EXPENDITURE TRACKING SURVEYS (PETS)

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Kampala, 09 – 13 March 2009

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