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Government of Uganda

Joint Evaluation of Budget Support to Uganda

Final Report

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Evaluation jointly managed by the European Commission (DG DEVCO Evaluation Unit) and the World Bank's Independent Evaluation Group (IEG) with the Government of Uganda (Ministry of Finance , Planning, and Economic Development, and Office of the Prime Minister), Ireland (Department of Foreign Affairs and Trade) and the UK (DFID)

International Cooperation and development

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JOINT EVALUATION OF BUDGET SUPPORT

TO UGANDA

Terms of Reference

(July 2014)

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1. INTRODUCTION AND PRELIMINARY SETTINGS

During the past decade donors and recipient countries have shifted increasingly from a project approach to general and sector budget support. It was felt that budget support, by contributing to the overall national development strategy and sector strategies would enhance effectiveness and efficiency of development cooperation. More broadly, in accordance with the Paris Declaration and pledge by G8 donors to dramatically increase aid, General Budget Support (GBS) was viewed as consistent with principles of greater country ownership, lower transactions costs, encouragement of the use of country systems, and hence more effective. Subsequent debates raised questions about some of the elements of this early consensus.

Budget support is defined as a method of financing a partner country's budget through a transfer of resources from an external financing agency to the partner government's national treasury. The funds thus transferred are managed in accordance with the recipient's budgetary procedures and are not tracked within the government system. Budget support includes General Budget Support (GBS) and Sector Budget Support (SBS). *Sector Budget Support* aims at contributing to accelerated progress towards the government's goals within a specific sector (as identified in the sector strategy). In the case of general budget support, the dialogue between donors and partner governments focuses on overall policy and budget priorities, whereas for sector budget support the focus is on sector-specific policies and concerns.

There is demand from parliaments and other stakeholders to show the results of this type of support. Proponents and opponents hold strong views about the effectiveness of budget support, but these views are not necessarily supported by rigorous evidence. Early evaluations of budget support focused on political economy and policy processes, as well as balance of payments and fiscal balances, but did not analyse the contribution Budget Support has made on development results. Research on development results (growth, poverty reduction) increased in the 1990s in the context of the broader empirical literature on development effectiveness. With increased provision of budget support and substantial increase in the availability and quality of relevant macro, sector, and micro data and recent research, it is both timely and important to evaluate GBS contribution to development. This will provide evidence to inform the future use of this type of support.

In the case of Uganda the Independent Evaluation Group (IEG) of the World Bank and European Commission have initiated a joint evaluation that shall meet the IEG's evaluation requirements and also allow to work within the framework of the methodological approach developed by the OECD/DAC network on development evaluations.

The evaluation team will thus be composed of some experts from or recruited by the IEG and some recruited under the present ToRs. One of the main purposes of this evaluation is to provide evidence on the extent to which budget support has contributed to the achievement of its intended objectives. The evaluation will rely as much as possible on existing evaluations and data. The evaluation will be able to build, *inter alia*, on a Review of Budget Support (BS) operations in Uganda that was carried out recently by DFID/ODI.

The organisation of these terms of reference is the following: the next section (2) provides some background on budget support in Uganda. Section 3 includes the objectives and mandate of the evaluation. Section 4 defines the scope and section 5 formulates key evaluation issues. Section 6 discusses the methodology. Section 7 describes the key deliverables and section 8 sketches the evaluation phases. Section 9 ends with the proposed organisation and planning.

2. BACKGROUND

National policies and aid dependency

Uganda's national policies have been set out in a series of Poverty Eradication Action Plans (PEAPs) since 1997. The third PEAP (2004/05–2007/08) was extended until 2009/10 following the delay in consultations on and formulation of a new five year National Development Plan (NDP) for the period 2010/11 to 2014/15. The first NDP was officially launched and approved by Cabinet in April 2010 and later on approved by Parliament in November 2010

The NDP outlines Uganda's medium term strategic development priorities and implementation strategies, with a central theme of "*Growth, Employment and Socio Economic Transformation for Prosperity"*. The NDP outlines a strong focus on investment in energy, roads and water to support growth, employment and prosperity for all, alongside an emphasis on improving the quality of service delivery – over a five year time horizon. Eight strategic development objectives to be achieved by the NDP have been identified as follows: (i) increasing household incomes and promoting equity; (ii) enhancing the availability and quality of gainful employment; (iii) improving stock and quality of economic infrastructure; (iv) increasing access to quality social services; (v) promoting science, technology, innovation and ICT to enhance competitiveness; (vi) enhancing human capital development; (vii) strengthening good governance, defence and security; and (viii) promoting sustainable population and use of the environment and natural resources. A mid-term review of the NDP has been completed, and a second NDP review is now underway.

Donor assistance in support of Uganda's PEAP and NDP, including budget support, has accounted for large, albeit declining shares of Uganda's budget. Donor assistance as a percentage of the total budget decreased from 52.3% in Uganda Fiscal Year 2003/04, to 30.4% in FY 2008/09; to a projected 21% in FY 2013/14. Budget support declined substantially over the past 5 years from an average of 8% to about 2% of the budget in FY 13/14.

In addition to GBS, not all development partners provide 'pure' SBS[1], under the definition of the OECD-DAC, but rather forms of basket funds or other ways of earmarking. During the inception phase the evaluators will have to carefully identify the SBS operations in Uganda falling under the OECD-DAC definition of budget support.

Development partner coordination and alignment to national policies before 2008

Since the signature of the Partnership Principles in 2003, aid interventions in Uganda are broadly in line with Government of Uganda's (GoU) PEAP although at the time specific alignment remained a challenge. The third PEAP (2004/05–2007/08) formed the basis for the Uganda Joint Assistance Strategy (UJAS, 2005) which set out a shared ambition to harmonise approaches to the provision of budget support, including higher institutional policy dialogue through the UJAS group since 2005. Technical dialogue on budget support issues traditionally occurred in the context of the Public Expenditure Review (PER) working group and, since 2004, also in the newly created Donor Economist Group (DEG).

In Uganda's Fiscal Year 2003/04 roughly USD 400 million budget support was provided by the ADB, Austria, Canada, Denmark, the European Union, France, Germany, Ireland, Italy, Netherlands, Sweden, Norway, United Kingdom, and the World Bank as well as USD 61 million through HIPC.

[1] SBS is defined as un-earmarked funding, internally coded within the budget, and only notionally conditioned on a sector through the choice of indicators and focus of policy dialogue.

Up to the second half of the 2000s budget support partners were working within the framework of the World Bank's Poverty Reduction Support Credit (PRSC), and World Bank teams who also led review missions. As of 2005, however, several partners considered moving from focusing their support on prior actions to a more indicator based approach for payment decisions. This thinking process coincided with the Government of Uganda's (GoU's) commitment to create a stronger link between results and allocation of budgets, in preparations for an Output Based Budgeting Tool (OBT). The process culminated in the Joint Budget Support (JBS) pre-identification mission in July 2008, which led to the development of the Joint Budget Support Framework (JBSF).

Since 2008 all budget support was extended through JBSF …

The JBSF brought together all general and most sector budget support providers in Uganda: Austria, Belgium, Denmark, the European Commission, Germany's KfW, Ireland, the Netherlands, Norway, Sweden, United Kingdom's DFID, and the World Bank. The IMF participated as a technical expert and the African Development Bank was associated as an observer. Following concerns over corruption and policy changes in home countries, the Netherlands and Norway stopped their SBS in 2010/11.

The stated objective of JBSF was *"to improve the impact of public spending on the lives of poor people, while maintaining macroeconomic stability and supporting economic growth"*. The agreed key features were: (i) a results-focus; (ii) a Joint Performance Assessment Framework (JAF) linked to the budget priorities and the PEAP/NDP; (iii) a transparent decision-making process; (iv) an aligned timetable; and (v) predictable disbursement commitments.

JAFs 1-4 (period of 4 years of annual assessments) consisted of four main parts, Part I: Preconditions for effective and efficient implementation of government policies (including Fiscal policy, public financial management, macro-economic stability, fight against corruption, GoU's commitment to poverty alleviation, and dialogue); Part II: Improved value for money in service delivery through removal of barriers in PFM and PSM systems while reinforcing compliance with regulations and avoidance of leakages; Part III: Improved sector results in Health, Education, Water and Sanitation, and Transport; Part IV: Mutual accountability in terms of development partner performance.

In December 2011, a working group of development partners was tasked by the JBSF Heads of Missions with reviewing the current JAF structure in response to GoU's call for a streamlining of the JAF which had reached close to 150 indicators and actions in JAF 4. The result of this process was a streamlined JAF 5 with 29 indicators in three key areas: (i) economic governance, transparency and accountability; (ii) political commitment to economic growth, development and service delivery (i.e. agriculture, education, energy, health, transport, water); and (iii) cross-cutting issues such as e.g. population growth.

The original conception of the JAF was designed to fill a void in government performance assessment. This was partly addressed by the introduction of the Government Annual Performance Report (GAPR), an initiative by the Office of the Prime Minister (OPM) since FY2010/11, which provides a comprehensive results framework to assess performance and progress of the NDP implementation. The GAPR has provided the Government's assessment on JAF indicators and actions upon which DPs have then made their own judgment. The processes of identifying and appraising the JAF indicators and actions as well as conducting regular dialogue followed the agreements reached in 2008/09. JBSF partners intended to formalise these procedures and agreements in a Memorandum of Understanding (MoU), which was ready for signature in 2012, but remained unsigned first due to some administrative delays on donor side, and then following the revelation of two major corruption scandals in OPM, involving a donor basket fund.

Discussions with GOU since in 2013 were focused on the PFM and anti-corruption agenda.

The corruption scandals revealed basic weaknesses in the PFM systems, which led all JBSF partners to temporarily suspend budget support, while some partners also suspended other on-budget projects. In December 2012 a comprehensive High Level Government Financial Management Reform Action Plan Matrix (HLAM) was presented by GoU, containing amongst a wide range of actions, seven key results necessary to restore fiduciary confidence for resumption of budget support. From December 2012 to July 2013 considerable efforts were taken at technical but also political level to demonstrate sufficient progress on these key results to restore confidence of the JBSF partners.

As of 2013, only a few partners are exploring options for future budget support under a new framework, closely linked to the NDP, but with a clear focus on PFM, accountability, and Justice, Law and Order. These decisions have been further jeopardised by the passing of the Anti-Homosexuality Bill into law on February 24, 2014[2].

A Partnership Policy, first formulated by the Government (OPM-lead) was prepared in 2011 as an update to the 2003 Partnership Principles. This was approved by Cabinet in 2012 and highlights budget support as the Government's preferred aid modality. However, following the aid suspensions of late 2012 and 2013 the Government is understood to be reviewing the Policy.

3. OBJECTIVES AND MANDATE OF THE EVALUATION

The main objective of the evaluation is to assess to what extent the General Budget Support (GBS) and Sector Budget Support (SBS) in Uganda contributed to achieve the expected results by giving means to the partner government to implement its national / sector strategies, and to enhance the efficiency and effectiveness of its policies, strategies and spending actions. The evaluation should also analyse how GBS and SBS have contributed (or not) to improved transparency within government systems and stronger accountability. This will cover different two to three time periods in the evolution of GBS in Uganda, i.e. pre-JBSF (2004-2008), JBSF (2009-2012), and HLAM (2013) and may present opportunities to contrast experience across periods. The evaluation of World Bank budget support will focus on the PRSCs and the financial sector development policy operation (DPO) during the period of analysis.

The evaluation will pay some attention to other aid modalities (basket/common funds, projects), in order to assess the complementarity and synergy between them, including (comparative) advantages or disadvantages taking into account the country context. It should also look into the availability and credibility of data.

The evaluation will take stock of what has been achieved with the main purpose to be forward looking and allow for lessons learnt and recommendations to inform on:

- the conditions under which GBS/SBS has an effect (or not) and the possible intensity and nature (positive or negative) of such effect in Uganda;
- the design and implementation of future GBS/SBS operations in Uganda, taking into account the state of transition Uganda is in following the withdrawal from budget support by several partners following the corruption scandals in 2012, and the expected increase in domestic revenue generation due to oil;

[2] Norway and Denmark have withheld a proportion of their financial aid to Government and the World Bank has suspended a USD $90 million health sector programme following the passing of the bill.

- improvements to be set up by development partners and the Government of Uganda to maximize GBS/SBS impacts in synergy with other complementary joint aid modalities in Uganda;
- constraints in government policies, institutional structures and administrative arrangements in Uganda, which might impede the overall effectiveness and impact of spending actions and targeted public policy.

4. SCOPE

4.1 Thematic Scope

The evaluation will focus on the impact of Budget Support on Uganda's:

- Macro-economy (including on growth, fiscal and debt issues) and income poverty reduction.
- Public Finance Management (PFM)
- Governance (including Accountability, Rule of Law and Justice)
- Health sector
- Education sector
- Water and Sanitation sector
- Gender

The evaluation will assess how and to what extent gender has been mainstreamed through Budget Support operations in Uganda. Besides the evaluation of the impacts of the provided funds, the impact of the other main inputs of BS such as policy dialogue and BS related capacity building must also be thoroughly assessed.

Where appropriate/possible the analysis shall include an analysis of the complementarity, synergies and divergences between different aid modalities. This analysis may also permit analysis of a counterfactual situation in which BS funding might have been provided through projects or sector support programmes.

The team recruited by the IEG will focus on the evaluation of the impacts of BS on Uganda's macro-economy, income poverty reduction, PFM, Accountability and Governance. The EU will recruit, through the present ToRs, the team of experts in charge of evaluating the impact of BS on Uganda's Health, Education, Water and Sanitation sectors relevant within the analysis of non-income poverty. The EU team will also be in charge of assessing the mainstreaming of gender as mentioned above.

The IEG team will be responsible for the overall coordination of the reports and will take the leadership in drafting them. The IEG and the EU team of consultants will cooperate closely, including via joint visits to the country, Washington and Brussels.

The evaluation should take into account all budget support operations (GBS and SBS) and .will cover, in particular:

i. the inputs provided through GBS and SBS arrangements over the period concerned;

iii. the performance of the GBS/ SBS inputs, in terms of direct and induced outputs;

iv. the changes related to GBS/ SBS (including level, quality and sustainability) which have occurred during the period under evaluation as regards the outputs, outcomes and impacts of government policies, strategies and actions (including governance and reform), and the key causal factors driving those changes;

v. the extent to which GBS and SBS have contributed to the results identified at the outcome and impact levels and the sustainability of these outcomes and impacts, considering both positive contributions to public policy-making and implementation processes and any (unwanted) negative side-effects which may have arisen;

vi. the overall relevance of the GBS/ SBS arrangements in view of the evolving partner country and sector specific contexts, also related to future flows of own revenues, the aid policies and the related goals;

vii. the efficiency of GBS/ SBS operations, considering both the process and the relation between effects (direct outputs, induced outputs and outcomes) and inputs;

viii. the consideration of recommendations from previous evaluations, in the GBS/ SBS (design and implementation) under evaluation.

ix. Where relevant, the evaluation will assess whether GBS and SBS has contributed differently to the results identified.

4.2. Temporal and geographical scope

The evaluation covers 10 years of general budget support and sector budget support operations to Uganda from 2004 until 2013, covering 5 years pre- JBSF and 5 years of JBSF, potentially considering the last year separately in light of the budget support suspension and focused dialogue on the HLAM. The evaluation will consider the support provided by all partners together and will provide some information that will allow comparing pre JBSF and JBSF area in terms of coordination, policy dialogue, results achieved, etc.

The field phase of the evaluation will take place in Kampala as well as in a number of districts outside the capital. Field missions are a central and integrated part of the evaluation.

5. APPROACH AND KEY EVALUATION ISSUES

The evaluators will basically follow the methodological approach for the evaluation of budget support developed within the OECD/DAC framework.[3] This approach combines a comprehensive evaluation framework discerning five levels of analysis with a so-called 'three step approach' and proposals for rigorous assessment of impacts.

The Evaluation Framework is divided into five levels as follows:

Level 1: *Budget support inputs*: funding, policy dialogue and capacity building support.

Level 2: *Direct outputs of budget support*: improvements in the relationships between external assistance and the national budget and policy processes.

[3] See OECD/DAC, Methodological approach for budget support evaluations (2012) in annex 1

Level 3: *Induced outputs*: expected positive changes in the quality of public policies, the strength of public sector institutions, the quality of public spending (increased allocative and operational efficiency), and consequent improvements in public service delivery.

Level 4: *Outcomes*: envisaged positive effects at the level of final beneficiaries – service users and economic actors – due to improved government policy management and service delivery.

Level 5: *Impact*: envisaged positive effects on sustainable economic growth, poverty reduction, empowerment of the poor and improvements in their real incomes, and other issues and priorities specified in the BS programme (s) being subject of the evaluation.

In addition, the approach discerns three 'steps' in the evaluation. This 'three step approach' recognises the different roles of donors and government in budget support processes, as well as the indirect impact of budget support on poverty alleviation (ie. through government policies):

- The *first step* aims at an assessment of the inputs provided by budget support and their effect on the relationship between external assistance and the partner country's budget and policy processes (direct outputs) as well as the induced changes in the financing and institutional framework for public spending, public policy, policy management and service delivery (induced outputs).

- The *second step* aims at an assessment of the outcomes (beneficiaries' responses) and impacts (sustainable growth, poverty reduction, improved governance, etc.) related to the explicit aims of budget support and to identify the determining factors.

- Finally, based on the findings in step one and two, *step three* aims at a synthesis and conclusions in which way budget support has contributed to changes (intended but also unintended) in the partner country. It should allow matching the results of the two previous steps and help identifying the related links, if any, thereby completing the contribution assessment on the causal relationship between GBS/SBS and the government strategy outcomes.

The key issues, to be addressed by the evaluation team, are derived from the framework and the three step approach:

Step 1, Level 1	Comparison between planned budget support inputs and those actually provided. Relevance and appropriateness of the design of the BS programme(s) and the mix of BS inputs in relation to: ▪ the political, economic (including ***"absorption capacity"*** for BS) and social context of the partner country; (IEG/EU) ▪ the government's policy framework including sectors, and: IEG/EU ▪ the DPs development assistance strategies; IEG/EU
Step 1, Level 2	Contribution of budget support to: ▪ increased size and share of external funding subject to the government's budgetary process; IEG ▪ increased size and share of the government budget available for discretionary spending; IEG

	▪ improved predictability of aid flows; IEG/EU ▪ the establishment of an efficient and effective policy dialogue framework focussed on strategic government priorities; IEG/EU ▪ the provision of well-coordinated technical assistance and capacity building activities focussed on strategic government priorities; IEG/EU ▪ greater harmonisation and alignment of external assistance as a whole; IEG/EU ▪ reduced transaction costs of external assistance as a whole. IEG/EU
Step 1, Level 3	Improvements in the areas supported through BS programmes and identification of the role played by BS (including thorough policy dialogue and capacity building) in determining these changes, e.g. : ▪ macroeconomic and budget management (revenue mobilisation and expenditure policies, inflation and debt management, monetary and foreign exchange policies); IEG ▪ quantity and quality of goods and services provided by the public sector EU ▪ PFM and procurement systems (fiscal discipline, enhanced allocative and operational efficiency, transparency, etc.); IEG ▪ public policy formulation and execution processes, including strengthened public sector institutions; IEG/EU ▪ fight against corruption and fraud; IEG ▪ improved transparency within government systems; IEG ▪ links between the government and oversight bodies in terms of policy formulation and approval, financial and non-financial accountability, and budget scrutiny. IEG
Step 2, Levels 4 & 5	Assessment of expected achievements in terms of development results at outcome and impact level as defined in the BS agreements, e.g.: ▪ changes in the internal and external competitive structure of the economy (enhanced competition on the domestic market; increased capacity and openness of financial services) and impact in terms of sustainable and inclusive economic growth (growth of private sector investment and production,....); IEG ▪ changes in income and non-income poverty; IEG/EU ▪ changes in the use and resulting quality of public services and their impact on the livelihoods of the population: EU - for example in case of BS for the education sector: enrolment, dropout, repetition and completion rates, gender equality, learning achievements, availability of a qualified labour force responding to market demand, employment rates, etc.

Step 3	- for example in case of BS for the health sector: health centres utilisation, supervised deliveries, immunised children, …, infant / under five / maternal mortality rates, incidence of malaria / tuberculosis / respiratory infections, etc. ▪ Changes in other key issues defined in BS agreements, e.g. governance, , IEG Identification of the determining factors of the changes (Internal and external factors) IEG/EU Assessment of the extent to which the above-mentioned determining factors can be related to the factors identified at the level of Induced Outputs (changes in macro-economic management, budgetary allocations, PFM systems, government institutional management, delivery of social services due to government policies and interventions, other government policy formulation and processes, etc.) IEG/EU

The key evaluation issues are indicative and during the inception phase they need to be translated into evaluation questions that are adapted to the context of Uganda.

The evaluation team will need to clearly identify and formulate judgement criteria (JCs) and indicators for each of the evaluation questions (EQs) to be developed. This will be done during the inception phase of the evaluation.

Note: Step 1, Levels 2 and 3 could be looked at separately for the pre-JBSF period and JBSF period.

6. METHODOLOGY

6.1 General approach

Evaluators are required to follow the above mentioned approach for the evaluation of budget support.

Wherever possible, they should apply methods and techniques that allow for a rigorous assessment of the impact of budget support. In both stages (step one and step two) the evaluators shall combine qualitative analyses (building on the literature, interviews, and other appropriate qualitative tools such as a stakeholder and beneficiary survey for example) with quantitative methods and techniques.

The analyses for step 1 will rely on interviews of key stakeholders and experts (including at headquarter level), existing evaluation reports, reviews, other official documents and academic literature, information on financial flows, micro- and macro-economic data and other indicators. Contribution analysis should be used here as far as possible.

The second step involves a description of the translation of sector budgets into sector programmes and investment and an assessment of the impact of these investments. The sector case studies shall combine quantitative techniques with more qualitative approaches, such as interviews, focus group discussions, field visits, and a document and literature review. For the in depth case studies a statistical (econometric) evaluation is required if there are no (recent) rigorous impact evaluations. Analyses will be based on administrative data and existing household surveys.

Further, in Step 3 of the methodological approach, the contribution of budget support as a factor of change or as a leverage for change to the attainment of the development results identified in Step 2 is to be determined.

6.2 Available information

The evaluation will rely as much as possible on existing reviews, evaluations and data, a small stakeholder and beneficiary survey will be carried out as well.

In this context the evaluation shall not only take into consideration but build on the Review (mentioned under point 1 above) that has been undertaken by DFID/ODI on BS operations between 1998 and 2012. Besides the Final Report, the Consultant will have access to all basic material collected by this Review such as the Financing Agreements received from Development Partners, the inventory of BS operations, relevant documents and information from the IEG on World Bank budget support, statistical and other data, studies, write-ups of meetings/interviews held, list of persons in government, and of Development partners and possibly non-state actors, etc. The Inventory assesses the design and responsiveness of BS over the 15 years period and is structured across seven themes: BS programme objectives and details, financing details, conditionality frameworks, dialogue frameworks, donor harmonisation, alignment to national strategies, links to TA and capacity building. Thus, the Review will cover the essential elements of the 1st Step analysis but mainly as regards the education sector and to only some extend the health sector as well.

In addition a number of studies are already available such as for example:

- The World Bank: Poverty Reduction Support Credits in Uganda: Results of a Stocktaking Study by Miovic, P. (2004)
- OECD/DAC: Uganda country case study in *A Joint Evaluation of General Budget Support 1994-2004* (2006)
- The World Bank, S. Koeberle, Z. Stavreski and J. Walliser (eds) Budget Support as More Effective Aid? Recent Experiences and Emerging Lessons: *General Budget Support and Public Financial Management Reform: Emerging Lessons from Tanzania and Uganda* by Williamson, T. (2006)
- The World Bank: S. Koeberle, Z. Stavreski and J. Walliser (eds) Budget Support as More Effective Aid? Recent Experiences and Emerging Lessons: *Budget Support, Aid Dependency, and Dutch Disease: The Case of Uganda* by Atingi-Eto, M. (2006)
- The Office of the Prime Minster: Evaluation of the Poverty Eradication Action Plans 1997-2007 (2008)
- The World Bank: *Uganda - Country Assistance Evaluation, 2001-07* (2009)
- IEG: *Poverty Reduction Support Credits (PRSC); An Evaluation of World Bank Support* (2010)
- ODI: *Sector Budget Support in Practice, Case Study Education Sector in Uganda* by Hedger, E., Williamson, T., Muzoora, T. and Stroh, J. (2010)
- The World Bank: Implementation Completion Reports of World Bank's PRSCs 1-9 and the financial sector DPO (2002-14).

- World Bank: Case study Uganda in *Beyond the Annual Budget: Global Experience with Medium-Term Expenditure Frameworks* (2013)
- NPA, Mid-Term Review of the National Development Plan, 2013
- The World Bank, Public Expenditure Review of Decentralization, 2012
- ODI – Budget Support to Uganda 1998-2012, Retrospective Review, 2014

Uganda is also one of the countries included in the three surveys carried out under the coordination of the OECD-DAC in order to monitor the implementation of the Paris Declaration (PD) in 2006, 2008 and 2011. In 2011, the final report on Phase II of the implementation of PD in Uganda was published with a focus on results in health, water and sanitation, and agriculture.

For the analysis of the impact of the government policies (or step two), the evaluation will rely as much as possible on recent studies as well as available Public Expenditure & Financial Accountability studies (PEFA), Public Expenditure Reviews (PER), Public Expenditure Tracking Surveys (PETS) and Country Economic Memoranda by the World Bank.

7. KEY DELIVERABLES

Following approval of the technical and financial proposal, the key deliverables are:

- the inception report
- a presentation of the preliminary findings (slide presentation) after the field phase
- the draft final report
- the final report (including the survey)
- Leaflet/ brochure on the results of the evaluation (EU financed: the offer must be based on 200 pieces).

All documents will be written in English. The electronic versions of all documents need to be delivered in both editable and not editable format. The final evaluation report should include an executive summary of no more than 15 pages, and a High Level Summary Note of 2 pages shall be drafted before the dissemination seminars. The length of the final main report should not exceed 100 pages. Additional information should be included in the annexes. A non-editable version on CD-ROM support shall be added to each printed Final main report.

The approved draft Final Report will be presented at a seminar in **Kampala** (pertinent comments may still be taken into account in the report thereafter) and the Final Report will then be presented in **Brussels and Washington. A *slide presentation is used for all seminars*.** For each seminar, **100 hard copies** of the report have to be produced and delivered to the place of the seminars (the exact number of reports per destination and delivery date will be specified by the Evaluation Manager).

The delivery of the documents follows the phasing of the evaluation according to the timing given in section 9.3 of these terms of reference.

8. STANDARD PHASES AND ACTIVITIES

The work to be carried out can be divided into six phases. The details of each of these are outlined in the following sections.

8.1 The preparatory phase

There will be an *initial 1day meeting* of the evaluation team leaders with the Management Group (Video Conference) to discuss and clarify objectives and requirements stated in the ToRs and technical offer of EU recruited team of experts. The EU recruited team leader should participate to this meeting from Brussels.

The preparatory phase will imply a visit by the EU financed experts of the evaluation team to Uganda of no less than two weeks. A further meeting with the Reference Group will follow the MG meeting.

8.2 Inception Phase

The inception phase is aimed at structuring the evaluation and consists of:

i. a preliminary desk-based review of documentation and the acquisition of most of the documentation available,

ii. a workshop at which all stakeholders will get familiarised with the evaluation objectives, methodological approach, timing and tasks to be carried out,

iii. the identification of the main specific features to be introduced in the comprehensive evaluation framework and the ensuing presentation,

iv. the finalisation of the list of questions to be covered and contacts to be taken for a small survey of stakeholders and possibly beneficiaries.

v. discussion and agreement with the Management Group on the preliminary framework and preliminary list of Evaluation Questions (EQs), Judgement Criteria (JCs) and indicators.

At the beginning of the Inception Phase a ½ day familiarisation workshop will be held in Kampala at which the team leaders, the members of the MG and all stakeholders involved in BS shall participate (staff members of the responsible government line-ministries, interested members of the development partner Community and the wider community of political leaders, academics, CSOs, private sector representatives). A further meeting with the Reference Group will follow the MG meeting. The workshop logistics (room rental, catering etc.) costs are **not** to be included in the offer.

The Inception Phase will imply a visit by the EU financed experts of the evaluation team to Uganda of no less than two weeks and one week mission to the IEG in Washington DC.

This inception phase will end with the submission of the draft inception report, which will be circulated for comments to the Management Group and Reference Group.

The evaluation team prepares a presentation (including a PPP) covering key parts of the inception report, in particular the preliminary framework and a preliminary list of JCs linked to the EQs and their justifications to be presented to the Management Group in an *inception meeting* for discussion and validation in line with the ToRs. .

The main objectives of the inception meeting are:

- to review with the Management Group the structuring of the evaluation and the key concerns to be addressed, and for the technical team to receive comments and feedback on the proposed approach;;
- to discuss the strategy proposed by the evaluation team in the inception report;
- to identify the sources of information necessary for the evaluation;
- to collect documentation and data available immediately and make arrangements for the compilation / preparation of data in the areas where there are gaps;
- to collect information (list of stakeholders and beneficiaries among others) to be used for the survey;
- to clarify the management arrangements for the evaluation

8.3 Desk and field phase

Following the submission – and approval - of the inception report, the evaluation team will review the additional information and documents collected. The EU recruited consultants will carry out the survey, thus be in charge of sending out the questionnaire, collecting the responses and evaluating them.

The following field phase covers a mission of the evaluation team to Uganda of at least 3 weeks. The evaluation team should spend sufficient time for visits in a number of provinces/districts. The provinces/districts to be visited will be agreed based on specific criteria laid down in the inception phase.

At the end of this phase the evaluation team will present preliminary findings (Slide presentation) to the Management Group and Reference Group of the evaluation.

8.4. The analysis and synthesis phase

Thereafter the evaluation team will carry out the overall analysis and synthesis of the collected information and prepare a draft final report. The report will be submitted to the MG in conformity with the substance and structure previously agreed with the Group. The draft final report will be presented by the IEG and EC team leaders to the Management Group of the evaluation (1/2 day meeting) in Brussels/Washington (Video Conference). The MG will decide on the timing of the consultation of the Reference Group that has 3 weeks to comment, both to point out any omissions or errors and to provide feedback on the conclusions and operational recommendations. The IEG will carrie out in parallel its internal quality assurance.

Comments received from the Management Group and Reference Group should be taken into consideration without compromising the independence of the evaluation team's value judgments.

The evaluation team may either accept or reject the comments, but in case of rejection, it will respond on the reason for rejection of these comments and the evaluation team’s responses can be annexed to the report.

The final report will be prepared based , considering discussions and comments made by the Management Group, the Reference Group and Workshop in Uganda and will have to be validated by the Management Group.

The evaluators have to hand over in an appropriate electronic format all relevant data gathered during the evaluation.

8.5. The communication/dissemination phase

The approved draft Final Report is presented by the evaluation team in Uganda to the national core stakeholders involved in budget support, interested members of the donor Community and to the wider community of political leaders, government officials, academics, CSOs, private sector representatives, to whom the findings and recommendations would be of interest. This presentation will be done during a ½ day seminar which will be organised in Kampala. The consultants should ensure the participation of the main members of the evaluation team in this seminar. The costs for the logistics for the seminar will be covered under a separate contract. The evaluation team will prepare a short 2 page High Level Summary Note on the results of the evaluation.

The report will be revised, as deemed appropriate by the evaluators, in order to take into account the comments made during this seminar in the final version of the report.

The final report should be presented to a wider range of stakeholders during a ½ day meeting organised in Brussels/Washington. The seminar logistics (room rental, catering etc.) costs are **not** to be included in the offer.

9. ORGANISATION AND PLANNING

9.1 Responsibility for the management of the evaluation

The evaluation is supported by the Government of Uganda as well as by the evaluation departments of many development partners, i.e. Austria, Belgium, European Commission, Denmark, Germany, Ireland, Sweden, United Kingdom and the World Bank - IEG.

For a successful evaluation, cooperation and participation of the Government of Uganda (Ministry of Finance, Planning and Economic Development, Office of the Prime Minister and other ministries) is also a prerequisite.

The evaluation will be followed by a *Management Group*, consisting of the Government of Uganda represented by the Ministry of Finance, Planning and Economic Development as well as the Indipandent Evaluation Group of the World Bank and European Commission (lead), Denmark, Ireland and the UK.

The European Commission (DEVCO Evaluation Unit) and IEG are responsible for the management of the evaluation. The Evaluation manager (EM) at the IEG and in the DEVCO Evaluation Unit will provide a pivotal role in facilitating the quality assurance process and ensure that evaluation is undertaken in accordance to the ToRs. They will be responsible of the organisation and serve as principal liaisons with the Management and Country Reference Group members.

The Management Group is responsible for the (timely) realisation and quality control of the evaluation. This includes:

- ensuring that evaluation is supported by and accompanied by the government and that key stakeholders are involved in the budget support evaluation;

- maintaining regular contacts with government, the evaluation team, and Reference Group, including the preparation of consolidated comments to the various reports prepared by consultants;
- approval of the Terms of Reference;
- organisation of the evaluation;
- composition of the evaluation team in accordance with the ToR and DAC quality standards;
- overseeing the work of the consultants including approval of reports;
- communication to immediate stakeholders and the wider development community;
- development and implementation of a dissemination strategy;
- ensuring that the evaluation will be carried out according to the ToR.

The overall approach of the Management Group will be to work in a transparent manner based on regular consultations with the Country Reference Group (see below).

A Country *Reference Group* will be established to:

a) serve as a resource and provide advice and feedback to the Management Group and evaluation team;

b) ensure the evaluation team has access to and consults all information sources and documentation on activities undertaken

c) review and comments the draft reports produced during the evaluation process.

The Country Reference Group consists of key government stakeholders, civil society, Parliament representatives and interested development partners.

The members recruited by the European Commission will be financed by the Commission and the IEG team members will be financed by the IEG. The 3 Workshops at the beginning of the Inception Phase and during the dissemination phase shall be financed by the Commission.

9.2 Evaluation team

The *Evaluation Team* will be composed of members from or recruited by the IEG and of experts recruited by the European Commission. Fluency in English, knowledge of one or more local languages, a thorough knowledge of and extensive experience of development processes in Uganda within the team would be a strong advantage and are important for a successful evaluation.

The evaluation team is led by the IEG team and will include the EU team leader and consultants. The evaluation team is responsible for:

- work plan and application of the agreed methodology;
- inception report;
- survey
- interim presentation (Slide presentation)
- draft and final report(s);

All members of the evaluation team shall be committed to an effective and efficient team work. The overall coordination of the evaluation will be undertaken by the team leader of the IEG in close cooperation with the team-leader recruited by the EU.

The **EU team leader** should have:

- at least **three references as team leader for multi-disciplinary evaluation teams**;
- **strong experience of budget support modalities** and budget support **evaluation techniques**
- an in-depth knowledge of the **methodological approach for BS evaluations developed within the OECD/DAC framework**

He /she will participate in the overall coordination of the evaluation, provide particular support on the provision of budgetary data (domestic and external resources) and analysis, and provide quality assurance of the EC recruited sector expert inputs

Expertise of team of Sector Experts:

General qualifications:

- development cooperation in general;
- development cooperation in Uganda
- Evaluation methodologies for complex evaluations.
- English fluent

Thorough knowledge and experience is required with:

- **budget support modalities;**
- techniques for the evaluation of budget support and for carrying out surveys;
- **the following sectors: health, education and water and sanitation,**
- **methods and techniques for impact evaluation (including statistical/econometric expertise**),
- **gender issues**

Following experience is an advantage:

- socioeconomic developments in Uganda
- One or more local languages
- familiarity with IEG evaluation methodology

The offer should clearly state which of the proposed team members cover which of the above qualifications.

The offer should also clearly state the category of each team member and which tasks the proposed team members are supposed to take responsibility for and how their qualifications relate to the tasks (if this is not self-evident from their profile).

All members must have higher relevant academic degree and must have a sound working knowledge (oral and written) in English.

The key skills are indicated **in bold**. In their absence, the 80 points threshold may not be reached.

It is expected that the Team leader will be an expert of category Senior.

During the offers evaluation process the contracting authority reserves the right to interview by phone one or several members of the evaluation teams proposed.

Experts must be strictly neutral. Conflicts of interests must be avoided.

During the offers evaluation process the contracting authority reserves the right to interview by phone one or several members of the evaluation teams proposed.

The consultants should provide the administrative support needed for organising the meetings of the evaluators with different actors during the evaluation process.

The offer does not need to make provisions for the costs of the workshops at the beginning and end of the evaluation.

The offer has to include 2 missions for the experts of 5 days each to Washington DC to coordinate with the IEG team members.

9.3 Proposed planning

The meetings and dates mentioned in the following section may be changed with the agreement between the Contractor and Contracting Authority.

Evaluation phases and stages	**Notes and reports**	**Date**	***Meetings/Communications***
Preparation phase			
EU procurement and award of contract Kick off meeting	EU: Technical and financial offer	*July/August 2014* *Beginning of September 2014*	Formal contract between the consultant and the contracting DP agency Meeting with Management Group (MG) Videoconference
1. Inception phase			
Preliminary desk review		*September 2014*	
Inception seminar in the country		2nd or 3rd week *of September (tentative 16/09)*	Meeting with Management group, Reference Group (RG) and other stakeholders in Uganda, Kampala
Visit of Team Leaders and Sector Experts to the partner country.+ preparation of the survey		*September 2014* (2 weeks)	
Mission to Washington EC team: work with IEG team		*Beginning October 2014* (1 week)	
Preparation of inception report	Draft inception report	*October 2014*	
Carry out small survey		*October/ November*	
Review of inception report		*October 2014*	Meeting with MG
Drafting of final inception report	Final inception report	*End October 2014*	Validation by MG
2. Desk and Field Phase			
Detailed desk review		*Beginning Nov 2014*	

Evaluation phases and stages	**Notes and reports**	**Date**	***Meetings/Communications***
Visit of Core Evaluation Team to partner country. Interviews with stakeholders, further data collection		*Nov 2014 (starting 10.Nov.)*	Meeting with RG in partner country.
Presentation of preliminary findings	Slide presentation	*Dec 2014*	Meeting with MG (Video Conference)
3. Analysis and Synthesis Phase			
Writing draft final report		*Dec 2014 to Feb/March 2015*	
Submission of draft final report	Draft Final Report	*End Feb/March 2015*	
Meeting with MG and with the RG.		*April 2015*	Meeting in videoconference
Receipt of comments		*April 2014*	Comments consolidated and sent by the MG
Final report	Revised draft Final Report	*Beginning May 2015*	Signed-off by MG according to IEG quality assurance procedures
5. Communication/Dissemination phase			
National seminar	Power point presentation and discussion.	*May 2015*	1/2 day conference. Participants: RG, MG, Headquarter Evaluation Units + DP representatives, various stakeholders in partner country.
Brussels/Washington seminar	Power point presentation and discussion	*June 2015*	Half day conference in Brussels and Washington

10. TECHNICAL OFFERS EVALUATION CRITERIA

The offers must contain as minimum all items referred to in the Annex 1, art. 10.3.b. of the Framework contract.

The offers evaluation criteria and their respective weights are:

	Maximum
Total score for Organisation and methodology	
Understanding of ToR	10
Organization of tasks including timing	10
Evaluation approach, working method, analysis	15
Quality control mechanism	5
Sub Total	**40**
Experts/ Expertise	
Team leader	25
Other experts	25
Expert for quality control	10
Sub Total	**60**
Overall total score	**100**

ANNEX 1 – SURVEY

A survey will be conducted within this evaluation to collect feedback on the design and implementation of BS operations and the outcomes and impacts formulated within their frameworks. The survey will be carried out at 2 levels.

The first level will cover issues related to the design (including the formulation of outcomes and impact) and implementation of the BS operations under consideration, and central/national stakeholders including government officials, development partners directly involved in BS operations. The target group is thus government officials in various line ministries, including Ministry of Works and Transports, Ministry of Water, Ministry of Lands, Housing and Urban Development, Ministry of Education and Sports, Ministry of Finance, Planning and Economic Development, Ministry of Health, Ministry of Local Government, Ministry of Public Service, Ministry of Tourism, Trade and Industry, and others. The survey team will be required to finalise the survey questions, online template and contact list during the inception phase, thereafter send out the questions online via email, collect the data, (this may require phone, fax and other forms of follow up to ensure at least a 30% response rate) and report the results in raw and aggregate format. The online survey will take place in October/beginning of November.

The second level of the survey will relate to sub-national/local authorities and community groups, to the identification and verification/validation of examined outcomes and impacts and the determining factors in the field of education and health in Uganda, and if possible water & sanitation. Examples of such result indicators are the increase in access to schools, number of vaccinated children, women delivering in hospitals and access to medicine. This survey will be conducted on the ground in two to three distinct districts of Uganda. Local authorities and bodies, including schools and health care facilities, shall be contacted and the data collected shall be 'cleaned', put into a central data base and reported on in raw and aggregate format. This part of the survey will take place in a subsequent phase to be defined during the inception stage and it requires conducting the survey on the ground and may engaging local staff.
Before the beginning of Inception Phase the IEG will provide a draft of the online-template, potential survey questions for and possible stakeholders to be contacted at both levels of the exercise.

Annex 2: List of documents and sources of information

Table of Contents

1 Government of Uganda

1.1 Overall legal and policy framework

Government of Uganda (2007): *Peace, Recovery and Development Plan For Northern Uganda (PRDP) 2007-2010.*

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Annex 3: List of persons met

Name	First name(s)	Title	Institution
Achiro	Irene	Monitoring officer, Water & Environment	Ministry of Finance, Planning and Economic Development
Agaba	Annette	District Finance Officer, Mbarara	Ministry of Education and Sports Mbarara District
Akol	Edward	Director of Audit	Auditor General
Alidria-Ezati	Isaac	Director of Health Services	Ministry of Health
Alitii	Candia Tom	Principal Finance Officer	Ministry of Health
Arinaitwe	Jim	Coordinator Global Fund	Ministry of Health
Asiimwe	Loy	MIS Manager, Directorate of Water Development	Ministry of Water and Environment
Babumba	Mutebi	District Internal Auditor	Masaka DLG
Bant	James	Director of Audit, Forensic Audits and Investigations	Auditor General
Baryomunsi	Godfrey	Vice Chairperson	Mbarara DLG
Bazzanella	Sabrina	Governance, Programme Manager	EU
Birnbaum	Albert Bruun	First secretary Governance	Danida
Brownbridge	Martin	Advisor to Central Bank	Bank of Uganda
Bwiiza	Angela	Coordinator TSUs	Ministry of Water and Environment
Byamugisha	Albert	Commissioner M&E	Office of the Prime Minister
Century	Howard	Procurement Specialist	World Bank
Chibita	Mike J.	Director of Public Prosecutions	Directorate of Public Prosecutions
Coronel	Ana Lucia	Senior Resident Representative	IMF
Curtale	Filippo	Health Sector Advisor	Belgian Technical Cooperation
de Woelmont	Gauthier	Public Finance Management Advisor	Belgian Technical Cooperation
Desiderio	Turwsiime	Senior Education Officer, Mabarara	Ministry of Education and Sports Mbarara District
Dhatemwa	Godfrey	Commissioner, Planning and Policy Analysis	Ministry of Education and Sports
Egesa	Kenneth	Acting Director of Research	Bank of Uganda
Ejolu	Innocent	Principal Policy Analyst	Office of the Prime Minister
Enyako	Roger	Finance and Budget	Ministry of Health
Eyatu	Joseph Oriono	Commissioner Rural Water Supply	Ministry of Water and Environment
Girma Tessema	Zemedkun	Senior Transport Specialist	World Bank
Gwokyala	Noeline	Monitoring officer education sector	Ministry of Finance, Planning and Economic Development
Hirya	Joseph	Director of Audit	Auditor General
Hoorntje	Theo	Head of Cooperation	EU
Isasozi	Joseph	Ag. DFO	Masaka DLG
Isemwogerere	Fredrick	DCAO	Masaka DLG
Juuko	Elias	Acting District Water Engineer / District Water Officer	Masaka DLG
Kaana	Francis		Ngaara, Primary School, Mbarara District
Kabango	Freddie	Action DAO	Masaka DLG

Name	First name(s)	Title	Institution
Kabirizi	Aaron	Director Water Development	Ministry of Water and Environment
Kabuye	Pascal	ACAW/AWI	Masaka DLG
Kaggwa Sebudde	Rachel	Senior Economist	World Bank
Kaguna Bwela	Amooti	District Health Officer	Ministry of Health Mbarara District
Kahangire	Moses	District Works Officer / Acting DE	Mbarara DLG
Kakande	Margaret	Head BMAU, Budget Monitoring and Accountability Unit	Ministry of Finance, Planning and Economic Development
Kalebbo	Justus	Technical Monitoring Officer, Public Finance Management	Ministry of Finance, Planning and Economic Development
Karoro	Henry	Economist, Budget Directorate	Ministry of Finance, Planning and Economic Development
Kasekende	Louis	Deputy Governor	Bank of Uganda
Kashaija	Kenneth	Assistant Engineer in charge of boreholes	Mbarara DLG
Kasirye	Ibrahim	Principal Research Fellow	Economic Policy and Research Center
Kasito	Margaret	Irish Aid technical Assistance, Gender Unit	Ministry of Education and Sports
Kasule-Mukasa	Paul	Program Coordinator	Ministry of Local Government
Katungi	Stuart Gordon	Database programmer, Budget Department	Ministry of Finance, Planning and Economic Development
Kawanguzi	Kefa	Monitoring officer health sector	Ministry of Finance, Planning and Economic Development
Kibirige	Moses	Trade & Competitiveness	World Bank
Kiiza	Lawrence	Directorate of Economic Affairs (planning)	Ministry of Finance, Planning and Economic Development
Kirumira	Daniel	Physical Planner	Masaka DLG
Kirwan	Frank	Head of Cooperation	Embassy of Ireland
Kiwanuka	Joel	Principal Sociologist	Ministry of Water and Environment
Klinken van	Rinus	Sector Lead WASH	SNV Netherlands Development Organisation
Knapp	Simone	Head	Austrian Development Agency
Kramer	Anja	Officer	KfW
Kugonza	Maria	Economist, Education Planning and Analysis Department	Ministry of Education and Sports
Kule	Benson Baritazale	Commissioner of Secondary Education	Ministry of Education and Sports
Kyokuhaire	Juliet	Principal Economist Infrastructure & Social Services,	Ministry of Finance, Planning and Economic Development
Kyomukama	Maggie	Assistant Commissioner, Gender and Community	Ministry of Gender, Labour and Social Development
Laker	Caroline	Social Development Advisor	Irish Aid
Larsen	Soren Hogsbro	First secretary	Danida
Lhouiva	Balalga	Assistant Commissioner, Education Planning and Analysis	Ministry of Education and Sports
Lindberg	Anne	Health sector advisor	Swedish International Development Agency
Lock	Stefan	Head of Section, Economic and Social Sectors	EU
Lubanga	Timothy	Assistant Commissioner for Monitoring & Evaluation	Office of the Prime Minister

Name	First name(s)	Title	Institution
Lubega	Irene Namatovu	Head of Statistics Section, Planning Department	Ministry of Education and Sports
Lukwago	Asuman	Permanent Secretary	Ministry of Health
Magezi	Barbara	Senior Public Sector Specialist	World Bank
Masala	Giuseppe	Head of Cooperation Office	Italian Cooperation
Matyama	Frederick	Assistant Commissioner DARC (new unit replacing ALD)	Ministry of Finance, Planning and Economic Development
Mbowa	Swaibu	Senior Research Fellow	Economic Policy and Research Center
Mbulamako	Laban	Commisioner, Budget Directorate	Ministry of Finance, Planning and Economic Development
Meassick	Mark	Deputy Mission Director	USAID
Meyer	Rosette	Human Rights, Conflict and Gender Advisor	EU
Millar	Thomas	Head of Section, Governance Trade and Private Sector	EU
Mokooyo	Edward	Assistant Commissioner Health Services	Ministry of Health
Molica	Denise	Technical Advisor on Aid Effectiveness	Italian Cooperation
Mpoza	Isaac David	Ag. Director Debt & Cash Management	Ministry of Finance, Planning and Economic Development
Mugala	Josephine	Program Officer-Research & Development	UWASNET
Mugambe	Kenneth	Budget Director	Ministry of Finance, Planning and Economic Development
Mugisha	James	Gender focal point	Ministry of Health
Muhakanizi	Keith	Permanent Secretary / Director General	Ministry of Finance, Planning and Economic Development
Mulindwa	Innocent	Senior Education Expert	World Bank
Mulindwa	John Baptist	Acting District Education Inspector	Ministry of Education and Sports Masaka District
Mulyagonja Kakooza	Irene	Inspectorate General	Inspectorate of Government
Musisi	Albert	Ag. Commissioner Macro-economic policy	Ministry of Finance, Planning and Economic Development
Musisi	Stuart	District Health Officer	Ministry of Health Masaka District
Musisi	Willau	DCDO	Masaka DLG
Mutono	Samuel	Water and Sanitation Expert	World Bank
Muwanga	John	Auditor General	Auditor General
Nabaggala	Margaret	Dep. DHO	Ministry of Health Masaka District
Nabbumba	Rosetti	Deputy Head, Budget Monitoring and Accountability Unit	Ministry of Finance, Planning and Economic Development
Najjuma	Cate	Senior Programme Adviser-Economist	Royal Danish Embassy Kampala
Namagembe	Betty	Acting District Education Officer	Ministry of Education and Sports Masaka District
Ndoleriire	William	Assistance Commissioner, Infrastructure and Social Services Department	Ministry of Finance, Planning and Economic Development
Nekesa	Jacinta	Head of Integrated WASH Programme	WaterAid
Nekyujiwe	Rose	Acting DNRE	Masaka DLG

Name	First name(s)	Title	Institution
Nguessa Nganou	Jean-Pascal	Senior Country Economist	World Bank
Nkaada	Daniel	Commissioner Pre-Primary and Primary Education	Ministry of Education and Sports
Nkusa	Richards	Laboratory Technician	Mpugwe Health Clinic III
Ntambaatu	Margret	ADMO	Masaka DLG
Ntambaazi	Margaret	Acting District Health Officer	Mbarara DLG
Nyirarukungo	Marie-Gonetti	First Secretary for Development Cooperation	Belgian Technical Cooperation
Ogwang	Emmanuel	Fiscal decentralization system support officer	Ministry of Finance, Planning and Economic Development
Okwero	Peter	Senior Health Specialist	World Bank
Ongom	Elizabeth	Education Advisor	EU
Raitz von Frenz	Christian	Governance and Accontability Expert	EU
Reed	Leslie	Mission Director	USAID
Rider Smith	David	Advisor	DFID
Roberts	Nick	Consultant TASU-JBSF	Freelance
Rugamba-Rwanyange	Rosemary	Education Specialist	UNICEF
Runumi	Francis	Director of Planning	Ministry of Health
Schmidt	Sybille	Programme Officer, Economic and Social Sectors	EU
Sekaggya-Bagarukayo	Diane	Education Advisor	Irish Aid
Seryazi	John CT	Operations Officer	EU Delegation/Infrastructure Section
Seviiri	Mathias	Medical Staff	District Level IV Clinic
Shinyekwa	Isaac	Research Fellow Trade & Integration	Economic Policy and Research Center
Skiba	Agneiszka	Operations Adviser Infrastructure	EU
Smolders	Steven	PFM Expert	EU
Spets	Susanne	Chancellor for Development Assistance to Uganda	Swedish International Development Agency
Ssansa	Mugenyi	Ag. Director Coordination and Monitoring	Office of the Prime Minister
Ssemogerere	Frederick	Assistant CAO	Masaka DLG
Ssengooba	Freddie	Lead Researcher	Makere School of Public Heath
Sseremba	Hood	Ag. CAO	Masaka DLG
Ssewakiryanga	Richard	Executive Director	Uganda National NGO Forum
Ssewanyana	Sarah	Executive Director	Economic Policy and Research Center
Ssozi	Disan	Assistant Commissioner, Directorate of Water Development	Ministry of Water and Environment
Sturesson	Annie	Senior Economist - ODI Fellow, Aid Liaison Department	Ministry of Finance, Planning and Economic Development
Tumusiire	Godfrey	Dep. Chief Administrative Officer	Ministry of Health Mbarara District
Twahil	Kiteezaala	Head Teacher	Kaddugala Secondary School, Masaka District
Tweesime	Fred	DARC Member	Ministry of Finance, Planning and Economic Development

Name	First name(s)	Title	Institution
Wagona	Vincent	Principal State Attorney	Directorate of Public Prosecutions
Waiswa	Bageya	Secretary to the Inspectorate of Government	Inspectorate of Government
Wakhweya	Jacqueline	Private Sector Unit Leader	USAID
Walala	John Genda	Director, Local Government Inspection	Ministry of Local Government
Wanambi	Nelson	Principle Economist, Budget Department	Ministry of Education and Sports
Wanyera	Maris	Commissioner Development Assistance and Regional Cooperation (DARC)	Ministry of Finance, Planning and Economic Development
Williamson	Tim	Consultant	Consultant/ODI

Annex 4: Complementary data on Budget Support financial transfers

Clarifications and background on the sets of data used

Despite significant efforts by the team in trying to gain a full understanding of the amounts provided by donors in the form of budget support, be it GBS or SBS, it has not been possible to reconcile the different sets of data retrieved from the different sources.

Three sets of data have been gathered and reviewed by the team. These are:

- Data provided by the Aid Liaison Department of the MoFPED;
- Data provided by the TASU; and
- Data provided by the ODI team that carried out a review of budget support in Uganda over the period 1998-2012.

Additional efforts have also been made to gather first-hand information directly from the donors but overall these efforts have not yielded the desired results.

Table 1 Advantages and disadvantages of different data sources

Source	PROs	CONs
ALD, MoFPED	Complete set of data on both disbursements and commitments over the whole period covered by the evaluation	The data provided includes amounts which despite being on budget are not budget support. This is evident when looking at figures for some donors (eg. Italy which is included but has never provided BS in Uganda or the inclusion of IFAD among the BS donors)
ODI	The data set has been implicitly been validated by donors with whom the results of the review has been shared, many of which contributed directly to the set-up of the data base through the provision of information	The data set provides information only on disbursements Again, data includes amounts which despite being on budget are not budget support
TASU	The data set includes specific information (cross-checking of data with donors) on amounts committed and disbursed	The data set only provides information for the period FY 2009/10 – 2013/14 and thus covers only the last period of the evaluation timeline

Efforts have been made to reconcile the different sets of data and try to identify the sources of differences. Among these: i) the possible inclusion of amounts which are on-budget but are not budget support according to information retrieved through direct contacts with DPs; ii) the possible differences in dates (e.g. dates recorded for the disbursement by donors and dates recorded for receipt of funds by the GoU) which might have a bearing in some cases on the actual FY; iii) differences in the currency conversion rates.

None of these can explain the differences in figures recorded. In the end, **the decision was made to rely mainly upon the data provided by the MoFPED although in some cases reference will also be made been to TASU data**. This also allows to ensure greater consistency when comparing figures for BS with other figures included in the GoU's budget.

The two tables that follow provide an overview of the discrepancies between the sets of data by looking at disbursements for the period covered by all three sets of data.

Table 2 Total amounts of GBS / SBS by source of data over the period FY 2009/10-2012/13, USD millions

	Education SBS	Health SBS	Water SBS	GBS SBS	Total BS (incl. HIPC)
MoFPED	52,0	25,0	51,0	505,0	987,0
ODI	43,3	32,4	39,8	700,0	1081,0
TASU	43,7	44,5	45,3	583,4	892,3

Source: own elaboration based on data from MoPED, ODI and TASU.

Table 3 *Total amounts of BS by donor according to source of data over the period FY 2009/10-2012/13, USD millions*

	Austria	Belgium	Denmark	EU	Germany	Ireland	Nether.	Norway	Sweden	UK	WB	Others
MoFPED	30,6	11,5	50,6	93,5	18,2	70,1	26,2	41,8	31,2	137,3	260,0	293,8
ODI	15,1	21,9	45,8	133,7	23,7	31,9	24,0	28,2	36,2	141,6	419,5	0,0
TASU	13,6	16,5	62,5	91,4	25,5	60,4	40,9	38,6	27,7	156,5	350,0	-

Source: own elaboration based on data from MoFPED, ODI and TASU.

Finally, it is also worth noting that differences exist between the data on BS provided the ALD in disaggregated form (by donor, by year) and that retrieved from the Annual Budgetary Central Government Finance Statistics also published by MoFPED.

This can explain differences in the data presented in the report and possible inconsistencies.

Table 4 *Total amounts of GBS, SBS and BoP support, USD millions*

	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
GBS	272,7	306,3	113,0	434,7	128,0	233,8	207,9	186,0	103,1	8,0	0,0
SBS	115,1	105,8	112,7	183,7	104,2	56,5	64,8	92,1	113,6	12,0	24,1
BoP/HIPC	61,7	64,7	81,5	52,2	47,6	44,0	45,9	47,9	58,7	47,0	
Total	449,4	476,8	307,2	670,7	279,7	334,3	318,6	326,1	275,4	66,9	24,1

Source: own elaboration based on data from ALD, MoPED

Table 5 *Average amounts of GBS, SBS and BoP support according to the periodisation (pre-JBSF, JBSF and HLAM), USD millions*

	2003/4-2007/8		2008/9-2011/12		2012/13-2013/14	
	amounts	% over total	amounts	% over total	amounts	% over total
GBS	1254,7	57%	730,8	58%	8,0	9%
average x year	250,9		182,7		4,0	
SBS	621,5	28%	327,1	26%	36,1	40%
average x year	124,3		81,8		18,1	
BoP	307,7	14%	196,5	16%	47,0	52%
average x year	61,5		39,3		9,4	
Total	2183,9	100%	1254,4	100%	91,1	100%
average x year	436,8		313,6		45,5	

Source: own elaboration based on data from ALD, MoFPED

Table 6 Budget support and grants as share of government revenue, USD millions

	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Revenues and Grants	1.555,9	1.736,2	1.753,5	2.210,8	2.316,5	2.300,6	2.380,3	2.890,7	3.099,7	3.199,4	3.430,9
Revenues	922,1	1.075,2	1.263,5	1.579,7	1.887,2	1.864,9	1.983,7	2.537,7	2.648,8	2.837,5	3.157,0
Grants	633,8	661,1	490,1	631,2	429,3	435,8	396,6	353,0	450,9	361,9	274,0
Budget Support	449,6	459,0	264,5	425,4	276,2	261,4	214,6	204,3	230,0	76,8	83,1
Project Support	184,3	202,0	225,6	205,7	153,1	174,3	182,0	148,7	220,9	285,1	190,9
Share of Grants / Revenues & Grants	41%	38%	28%	29%	19%	19%	17%	12%	15%	11%	8%
Share of Budget Support / Grants	71%	69%	54%	67%	64%	60%	54%	58%	51%	21%	30%
Share of Project Support / Grants	29%	31%	46%	33%	36%	40%	46%	42%	49%	79%	70%

Source: own calculations based on MoFPED, Annual Budgetary Central Gov Finance Statistics data

Table 7 Average amounts of BS and grants recorded on budget according to the periodisation: pre-JBSF, JBSF and HLAM, USD millions

	2003/04-2007/08	2008/09-2011/12	2012/13-2013/14
BS	374,9	239,2	80,0
Grants	569,1	409,1	317,9
% BS/Grant	66%	58%	25%

Source: own elaboration based on data from MoPED, Annual Budgetary Central Government Finance Statistics data (the different source explains differences with data presented in other tables).

Table 8 On-budget aid

	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
In billion Ush											
Total ODA (OECD)	1.806	2.165	2.183	2.733	2.988	3.332	3.885	4.347	3.950	4.281	4.377
Grants on-budget	1147,4	1177,1	897,5	1087,8	738,6	884,8	863,6	890,5	1129,3	936,2	708,7
of which, BS	814	817	484	733	475	531	467	515	576	199	215
Off-budget aid	659	988	1.286	1.646	2.250	2.447	3.021	3.456	2.820	3.345	3.668
Grants on budget / Total ODA	64%	54%	41%	40%	25%	27%	22%	20%	29%	22%	16%
In million USD											
Total ODA (OECD)	998	1.216	1.192	1.586	1.737	1.641	1.784	1.723	1.577	1.655	1.692
Grants on-budget	634	661	490	631	429	436	397	353	451	362	274
of which, BS	449,6	459,0	264,5	425,4	276,2	261,4	214,6	204,3	230,0	76,8	83,1
Off-budget aid	364	555	702	955	1.308	1.205	1.387	1.370	1.126	1.293	1.418

Source: MoFPED, Annual Budgetary Central Gov Finance Statistics and OECD statistics, http://stats.oecd.org/qwids/

Table 9 Predictability of BS disbursements, amounts in USD

	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
MoFPED data											
Forecasts	465,64	546,16	498,65	658,47	415,75	419,93	363,11	282,4	310,69	286,92	19,42
Disbursements	449,43	476,84	307,21	670,67	279,74	334,32	318,61	326,05	275,39	66,94	24,14
Performance	97%	87%	62%	102%	67%	80%	88%	115%	89%	23%	124%
Deviation	3%	13%	38%	-2%	33%	20%	12%	-15%	11%	77%	-24%
TASU data											
Forecasts	-	-	-	-	-	-	328,2	360,5	311,2	325,8	118
Disbursements	-	-	-	-	-	-	287,9	259,6	206,6	138	35,3
Performance	-	-	-	-	-	-	88%	72%	66%	42%	30%
Deviation	-	-	-	-	-	-	12%	28%	34%	58%	70%

Source: own elaboration based on data from ALD/MoFPED and TASU.

Table 10 Trends of BS as a share of GoU public expenditure, amounts in billion Ush

	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Revenues and Grants (R&G)	2.816,7	3.091,7	3.211,5	3.810,3	3.985,4	4.671,4	5.183,1	7.292,5	7.763,4	8.276,5	8.875,4
Revenues	1.669,2	1.914,6	2.314,0	2.722,5	3.246,8	3.786,6	4.319,5	6.402,0	6.634,1	7.340,3	8.166,7
Grants	1.147,4	1.177,1	897,5	1.087,8	738,6	884,8	863,6	890,5	1.129,3	936,2	708,7
Budget Support (BS)	813,8	817,4	484,4	733,2	475,2	530,9	467,3	515,5	576	198,7	215
Project Support (PS)	333,6	359,7	413,2	354,6	263,4	354	396,3	375	553,3	737,5	493,7
Grants / R&G	41%	38%	28%	29%	19%	19%	17%	12%	15%	11%	8%
BS / R&G	29%	26%	15%	19%	12%	11%	9%	7%	7%	2%	2%
BS / Grants	71%	69%	54%	67%	64%	60%	54%	58%	51%	21%	30%
PS / Grants	29%	31%	46%	33%	36%	40%	46%	42%	49%	79%	70%
Expenditure (incl. PS)	3.014,4	3.215,9	3.487,8	3.956,2	4.318,0	4.949,0	6.785,5	8.809,0	9.023,8	10.049,2	11.491,2
Development (dvt) Expenditures	1.115,5	1.229,0	1.256,0	1.516,1	1.436,7	1.657,1	2.478,4	2.850,9	3.602,9	4.236,9	4.816,0
Grants / total expenditure	38%	37%	26%	27%	17%	18%	13%	10%	13%	9%	6%
BS / total expenditure	27%	25%	14%	19%	11%	11%	7%	6%	6%	2%	2%
Grants / dvt exp	103%	96%	71%	72%	51%	53%	35%	31%	31%	22%	15%
BS / dvt exp.	73%	67%	39%	48%	33%	32%	19%	18%	16%	5%	4%
GoU Expenditure (excl. PS)	2.337,90	2.481,10	2.750,40	3.153,90	3.628,20	4.498,90	5.898,50	7.766,90	7.322,40	7.886,10	9.740,80
Grants / GoU expenditure	49%	47%	33%	34%	20%	20%	15%	11%	15%	12%	7%
BS / GoU expenditure	35%	33%	18%	23%	13%	12%	8%	7%	8%	3%	2%
Grants / dvt exp	103%	96%	71%	72%	51%	53%	35%	31%	31%	22%	15%
BS / dvt exp.	73%	67%	39%	48%	33%	32%	19%	18%	16%	5%	4%
BS / GDP	6,5%	5,3%	3,0%	4,0%	2,2%	2,2%	1,6%	1,5%	1,5%	0,4%	0,4%

Source: own calculations based on MoFPED, Annual Budgetary Central Government Finance Statistics data, World Bank national accounts data, and OECD National Accounts data files.

Table 11 Average BS as a share of GoU public expenditure across the three periods, billion Ush

	pre-JBSF 2003/4-2007/08	JBSF 2008/9-2011/12	HLAM 2012/13-2013/14
Share of grants / Revenues & Grants	31%	16%	10%
Share of BS / revenues & grants	20%	9%	2%
Share of Budget Support / Grants	65%	56%	26%
Share of Project Support / Grants	35%	44%	74%
Expenditure (incl. donor project expenditures)			
Aid (grants) on budget as % of total expenditure	29%	13%	8%
Budget support as a % of total expenditure	19%	7%	2%
GoU Expenditure (excl. donor projects)			
Aid (grants) as % of GoU expenditure	37%	15%	10%
Budget support as a % of GoU expenditure	24%	9%	2%
Aid (grants) on budget as % of development exp	79%	38%	18%
Budget support as a % of development exp.	52%	21%	5%

Source: own calculations based on MoFPED, Annual Budgetary Central Gov Finance Statistics data

Table 12 GoU expenditure by type and source of funding (%of GDP)

	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Curr. Exp.	15,3%	12,9%	13,9%	13,4%	13,6%	13,4%	14,3%	17,1%	13,9%	11,6%	12,0%
Dev. Exp.	9,0%	8,0%	7,8%	8,3%	6,8%	6,8%	8,2%	8,2%	9,2%	8,4%	8,7%
Tot .Exp.	24,2%	20,9%	21,7%	21,7%	20,4%	20,2%	22,5%	25,2%	23,1%	20,0%	20,7%
Revenues	13,4%	12,5%	14,4%	15,0%	15,3%	15,5%	14,4%	18,3%	17,0%	14,6%	14,7%
Resource gap before grants	10,8%	8,5%	7,3%	6,8%	5,1%	4,7%	8,2%	6,9%	6,1%	5,4%	6,0%
Grants	9,2%	7,7%	5,6%	6,0%	3,5%	3,6%	2,9%	2,6%	2,9%	1,9%	1,3%
BS	6,5%	5,3%	3,0%	4,0%	2,2%	2,2%	1,6%	1,5%	1,5%	0,4%	0,4%
on-budget Project support	2,7%	2,3%	2,6%	1,9%	1,2%	1,4%	1,3%	1,1%	1,4%	1,5%	0,9%
Resource gap after grants (deficit)	1,6%	0,8%	1,7%	0,8%	1,6%	1,1%	5,3%	4,3%	3,2%	3,5%	4,7%
Curr. Exp. covered by rev.	13,4%	12,5%	13,9%	13,4%	13,6%	13,4%	14,3%	17,1%	13,9%	11,6%	12,0%
Dev. Exp covered by rev.	0,0%	0,0%	0,5%	1,6%	1,7%	2,0%	0,0%	1,3%	3,1%	3,0%	2,7%
Budget Support	6,5%	5,3%	3,0%	4,0%	2,2%	2,2%	1,6%	1,5%	1,5%	0,4%	0,4%
On-budget Projects	2,7%	2,3%	2,6%	1,9%	1,2%	1,4%	1,3%	1,1%	1,4%	1,5%	0,9%
Deficit & others	1,6%	0,8%	1,7%	0,8%	1,6%	1,1%	5,3%	4,3%	3,2%	3,5%	4,7%

Source: own calculations based on MoFPED, Annual Budgetary Central Gov Finance Statistics data World Bank data and OECD National Accounts

Table 13 DWSDCG: amounts budgeted, released and comparison with water SBS flows.

	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
budget	24,5	30,76	29,6	27,74	40,66	46,35	45,44	55,37	56,85	58,86	64,95
release	24,48	25,42	27,99	27,74	40,52	41,44	44,13	55,37	52,1	53,64	41,38
SBS funds						35,6	49,35	30,2	34,77	36,49	22,92
SBS/releases						86%	112%	55%	67%	68%	55%

Source: SPRs

Annex 5: Complementary information on the methodology

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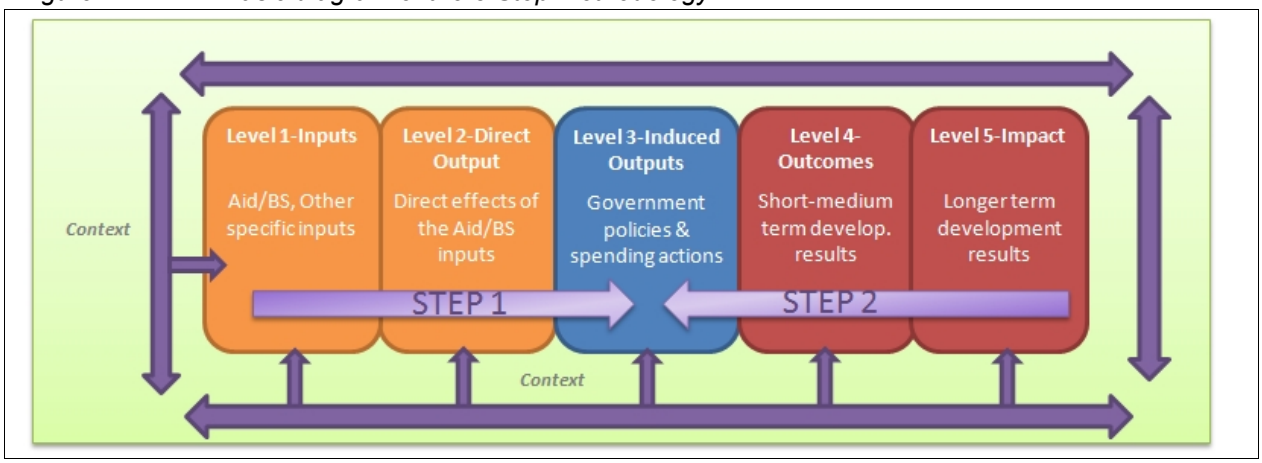
1 Introduction

In line with the OECD-DAC methodological approach for budget support evaluation (3 Step approach), the intervention logic of the evaluation is based on a comprehensive evaluation framework (CEF), which includes a specific theory of change. As shown in the basic diagram below, the intervention logic (IL) has four main components (highlighted with different colours):

- the government policies and spending actions[1] (level 3);
- the development results (levels 4 and 5);
- the various inputs to the government policies and spending actions, namely BS, and their direct effects (levels 1 and 2); and
- the context, including country and sectoral level political economy, various political, economic and social factors intervening in the process (the context interacts with all the levels).

Figure 1 Basic diagram of the 3 Step methodology



The implicit theory of change of this IL is that government policies and spending actions (level 3), in their interaction with the context (which encompasses external / exogenous factors)[2], play a direct role in the determination of the development results (levels 4 and 5). The inputs and direct effects of aid (namely in the case of BS, where they support general policy and budgetary capabilities) may only provide a contribution to enhance the government policies / actions.

Therefore, in the evaluation:

- it is possible to establish a direct causality link between level 3 and levels 4 & 5, i.e. between government and civil society strategies/action, on one side, and development results, on the other side; and
- it is possible to establish a direct causality link between levels 1 & 2 and level 3, i.e. between aid (namely BS) inputs and direct effects, on one side, and government strategies, policies and spending actions, on the other side; but
- it is very difficult to identify a direct causality link between levels 1 & 2 and levels 4 & 5, i.e. between aid (and BS) inputs and direct effects, on one side, and development results on the other side. Indeed, too many different – and much more important than aid – determining factors intervene in the process and make such links very vague and almost impossible to isolate.

As a consequence of the mentioned theory of change and its implications, the methodology splits the evaluation in two parts: Step 1 to evaluate the causality links between levels 1 & 2 and level 3 of the IL; and Step 2 to evaluate the causality link between level 3 and levels 4 & 5. More specifically, the evaluation includes:

- A contribution assessment (Step 1) aimed at identifying the specific contribution of the BS operations – in their interaction with other government, non-government and donor funded programmes and with the context – to the improvement of government strategies and civil society action (e.g. contribution to the strengthening of government policies, institutions, budget allocation processes, PFM and service delivery…).

[1] This level also includes civil society, which is part of the policy processes and as such is directly and indirectly affected by BS inputs.

[2] The assessment must also take into account the non-BS factors which may influence government's outputs, including: i) the stability and sensitivity of the political framework, ii) the capacity of civil society organisations and their ability to interact with the government, iii) the inherent capacities of the public sector, and iv) the external economic environment.

- A policy impact assessment (Step 2), in the sectors supported by the BS operations that have been selected as focal sectors of the evaluation, aimed at identifying the actual achievements in terms of development results and the policy and non-policy factors that have determined such achievements.
- A synthesis exercise (Step 3) that brings together the results of the two assessments mentioned above, aimed at identifying to what extent the policies supported by the different BS components (as shown by Step 1) have participated in the determination of the development results (as shown by Step 2). Such synthesis allowed establishing a causal relationship between BS and the development results.

2 Intervention logic

The IL (see Figure 2 below) is presented in a comprehensive version, which provides a framework for the whole budget-support-based co-operation with Uganda. It has been used to assess the general effects produced by the BS operations in their synergies and interactions, and to assess the sectoral effects. In this respect, the three sectors identified as case studies for Step 2 were given greater prominence.

The five levels of the IL are described below:

Level 1: **Inputs of budget support**, including policy dialogue and conditionalities, flow of funds as well as other complementary inputs (e.g. technical assistance, capacity development...) provided either by the same donors or by others or by specific government programmes - which BS may complement or overlap with.

Level 2: **Direct outputs** of budget support: improvements in the relationships between external assistance and the national budget and policy processes.

Level 3: **Induced outputs**: expected positive changes in the quality of public policies, the strength of public sector institutions, the quality of public spending (increased allocative and operational efficiency), and consequent improvements in public service delivery.[3]

Level 4: **Outcomes**: envisaged positive effects at the level of final beneficiaries – service users and economic actors as a result of Government policies and spending actions.

Level 5: **Impact**: envisaged positive effects on sustainable economic growth, poverty reduction, empowerment of the poor and improvements in their real incomes, and other issues and priorities specified in the BS operations being subject of the evaluation.

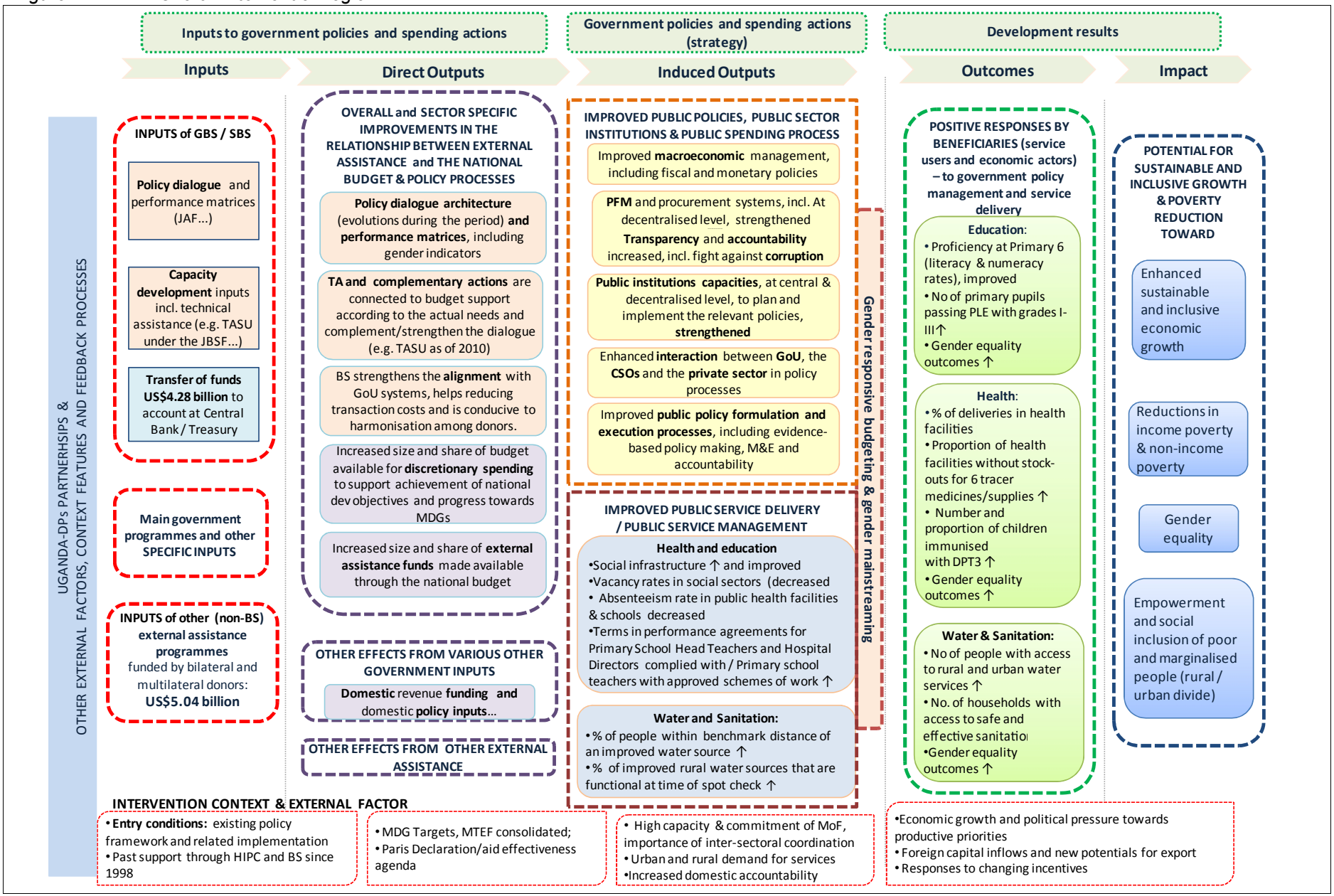
In adapting the Intervention Logic (IL) to the Ugandan case, due consideration was given to the relevance and applicability of the range of inputs, direct outputs, induced outputs, outcomes and impacts identified in the standardised IL. The results of these considerations are summarised in Figure 2, which presents the adapted version of the IL.

- The scale of Budget Support and the range of inputs provided in Uganda (funds, policy dialogue, and related support to capacity-building) are consistent with the inputs foreseen in the standardised framework at Level 1;
- The scale of external assistance in Uganda justifies the analysis of the interactions between Budget Support and other modalities foreseen at Level 2;
- The range of issues covered by the performance matrices and the associated dialogue framework justifies a focus on five core induced outputs at Level 3;
- Detailed attention has been directed, at Levels 4 & 5, to growth and income poverty and to non-income poverty, as captured in final outcomes and impacts within the education, health and water & sanitation sectors;
- Gender has been mainstreamed across the different levels of the IL to ensure the consideration of gender equality issues in the different dimensions of the analysis.

The IL provides a synthetic representation of the theory of change that the evaluation and includes the overall causality links between the different levels, namely the contribution of BS to the government policies and spending actions and the role of the latter in the determination of the development results. The detailed links and the related assumptions are developed in the EQs, which are designed to highlight specific areas of the IL and for which the JCs contain a detailed formulation of the causality assumptions underpinning the IL.

[3] As explained in the methodological approach for budget support evaluations, "*according to the current DAC definitions, the accomplishment of a policy reform has to be considered as an 'output' in the intervention logic. It cannot be considered as an 'outcome' because it does not represent per se a benefit to the people targeted by the BS. On the other hand, the accomplishment of a policy reform is not a direct output of the BS programme although the programme may have been designed to promote it, but rather an accomplishment of national stakeholders influenced by a number of other factors including BS. That is why this crucial level of the CEF is called 'induced outputs'*".

Figure 2 Overall intervention logic



3 Data collection and analytical tools

3.1 Standard data collection tools

The table below summarises the various mix of data collection tools and sources that were used for the different levels of analysis.

Table 1 Mix of data collection tools and sources

	Step 1 - Contribution analysis	Step 2 - Policy impact assessment		
		Education	Water	Health
Documentary sources[4]	●	●	●	●
Semi-structured interviews (central and local level)	●	●	●	●
On-line stakeholder survey	●			
Field survey	●	●	●	●
Development outcomes/impact database[5]		●	●	●
Focus groups (central and local level)		●	●	●
Site visits/direct observations		●	●	●

Counterfactual analysis complemented the above mentioned contribution analysis and policy impact assessments (see table). It was particularly important in the assessment of BS contribution to the induced outputs (Step 1), but also in Step 2 where counterfactuals were incorporated in the quantitative and qualitative assessments, which took into account and compared a wide range of determining factors. Strong attention was paid to distinguish the effects of BS programmes from the effects of other programmes with which BS interacts (especially, but not only, at the level of induced outputs). Attention was placed on the identification of: i) the most important internal or external factors that have contributed to government achievements, ii) the specific BS contributions and iii) related counterfactuals. A case by case approach has been adopted, whereby possible realistic alternatives to Budget Support (projects, nothing, intervention of other international partners replacing the BS donors) were identified and discussed.

3.2 Field survey

A small-scale field survey has been implemented in eight districts/municipalities (two in each of the four broad regions of Uganda) to collect information at ground level on major (cross-sectional and temporal) variations in terms of: i) the execution of sector policies/strategies at the local level; ii) the provision of basic services; and iii) perceptions of sector outcomes by the service units, including factors that may have influenced them. The survey targets service providers and local government administrations (at district level and below) in two focal sectors: education and health. While the main focus is on education and heath, the survey also covers aspects related to water and sanitation (e.g. on the availability and quality of water and sanitation infrastructures in health/education service units). The survey also gives a special attention to gender mainstreaming in the execution of public policies at the local level and the provision of basic services.

The survey mainly consists of three questionnaires:

1. A questionnaire for health facilities, with all modules applied to level-III units and a subset of modules applied to level-II units. The answers are collected from three different respondents: The In-Charge (Head) of the health unit, the Chairman of the Health Facility Management Committee, and a representative of technical staff (nurse or doctor, if different from the In-Charge) of the same committee. If the staff representative has also been elected as Chairman, a random nurse or doctor is interviewed instead.
2. A questionnaire that applies to both primary and secondary schools. The answers are collected from three different respondents: The Head Teacher / Principal of the school, the Chairman of

[4] Documents reviewed included: government/donor strategic, policy and programming documents; documentation associated to budget support programmes; technical assistance reports; documentation reflecting the process and content of policy dialogue; studies and academic literature on the main themes and sectors; etc.

[5] For more details, see sub-section on Step 2 quantitative analyses below.

the School Management Committee (if different from the Head Teacher), and a teacher representative other than Head Teacher of the same committee. If the latter has also been elected as Chairman, a random teacher is interviewed instead.

3. A short questionnaire for local administrations, with relatively general questions that can be asked to different officers at district and sub-county levels.

Questionnaires largely uses closed questions (yes/no, multiple choice, numbers), possibly with numerical scaling for qualitative statements ("*To which extent do you agree with…?*"). Electronic versions of the questionnaires were developed and installed on mobile/smart phones. Enumerators entered the collected data in real time in these devices. Data was regularly uploaded via the web-based secured platform ODK Open Data Kit. Both Particip and its local partner ran back-checks of the data, such as screening for missing values, outliers, internal consistency and time performance.

In addition to the three questionnaires described above, semi-structured interviews were conducted with district and sub-county officers in order to capture complementary qualitative elements and better understand the complex dynamics at play in local administrations. Interviews use both voice recording and written notes. Internal research staff translated the notes into English, provided a version in MS Word of each, and did a first summary based on a template provided by Particip.

Further details are provided in Annex 7.

3.3 On-line stakeholder survey

An on-line survey was administered to a limited sample of stakeholders directly involved in the funding and implementation of BS operations and belonging to the following four target groups:

1. Government (incl. MoFPED, the Office of the Prime Minister, line ministries) and other national institutions (target: around 20 respondents);
2. Development partners (target: around 60 respondents);
3. Non state actors, incl. research organizations, consultancies/ Independent consultants, CSOs, International NGOs (target: around 10 respondents).

The questionnaire consisted of closed questions with a rating scale 1-4 (5 including the "don't know" answer). Additionally, respondents had the possibility to comment on the question in an optional text box below the closed question. While each survey question related to the different aspects tackled by the EQs, the questionnaire did not mirror the complete spectrum of the evaluation matrix but provided the team with additional subjective views on the main issues at stake and allowed to better focus the field phase through the identification of a number of key investigation areas.

The survey was primarily used to collect information on issues related to the design and implementation of the BS operations (Step 1), although a few questions also pitched at a higher level to cover issues linked to the effects of BS operations on policy reforms and the achievements of sector outcomes (Step 2). The questionnaire complements the information gathered through documentary reviews and interviews with regard to issues related to design and implementation of BS operations. It also complements (to a lesser extent) information gathered through documentary reviews, interviews, quantitative analyses and the field survey with regard to policy reform efforts and their results in terms of development outcomes.

The survey was directly implemented by Particip via a standard online survey tool already used in recent similar evaluations. To ensure response collection and achieve the targeted response levels, the following measures are planned: email reminders; personal phone calls; if necessary, personal visits to 'must' respondents by team members.

Further details are provided in Annex 8.

3.4 Quantitative analyses for Step 2

The different quantitative analyses that are applied for Step 2 (causality assessment) share the common objective of contributing to the assessment of the causal relationship between the outcomes and incomes targeted by BS in the focal sectors and GoU specific policies supported by BS operations. To do so, different causal relationships between the outcome and impacts targeted by BS and a multitude of policy and non-policy factors were considered, in order to identify the most relevant ones.

In particular, detailed econometric analyses were carried out in Education and Water & Sanitation, two sectors where reliable time series are available. Different panel data estimation techniques were used to exploit inter-annual changes in key variables within districts, thus minimising potential bias in the causal interpretation of coefficient estimates. The underlying panel datasets covered all districts of Uganda over the period 2006 to 2013 and were primarily created from micro data of sector-specific Management Information Systems (service unit censuses), as well as other sources.

Further details are provided in Annex 6.

3.5 Approach to assessing gender mainstreaming

In line with the ToRs and with a view to ensure a comprehensive analysis of gender issues within the evaluation, the team has mainstreamed gender related issues across the set of evaluation questions either through the inclusion of judgement criteria or through the inclusion of indicators.

This approach allowed to analyse gender mainstreaming both across the different levels of the results-chain and in relation to the different strands of effects, encompassing issues related to financial flows as well as dialogue and institutional effects, and ending with the analysis of disaggregated data at outcome and impact level.

To this end, the team assessed:

- the design of the budget support programmes in order to identify: i) the inclusion of gender specific or gender disaggregated indicators (or lack thereof); and ii) the existence of accompanying measures related to gender (technical assistance, support to undertake gender analysis or related capacity building support...). Step 1 / Level 1.
- the extent to which: i) gender issues have (or have not) been included and discussed in the framework of the budget support policy dialogue processes at both sectoral and overall levels; and ii) gender-sensitive or gender- related accompanying measures (if any) feed into policy dialogue processes. Step 1 / Level 2.
- the extent to which gender issues have been mainstreamed in government policies and spending actions supported by BS operations (e.g. development and application of gender budgeting guidelines, existence of identifiable gender related, pro-poor expenditures, inclusion of gender-sensitive targets for public service delivery, strengthening of institutional and technical capacities at both central and decentralised level, inclusion of gender-sensitive and gender-specific indicators within monitoring systems...). Step 1 / Level 3.
- the extent to which the development results, in particular in the three focal sectors of education, health and water & sanitation, show improvements in terms of gender-sensitive outcomes and gender equality, and the extent to which these improvements can be traced back to increasingly gender responsive policies or to other policy or non-policy factors. Step 2 / Level 4.

In addition, a specific benchmarking of gender gaps in Uganda was carried out to provide complementary information on the situation of the country in terms of gender equality and equity – see Annex 9.

4 Quality assurance

The quality assurance (QA) system put in place for this evaluation responded to both IEG and EU standards which aim at ensuring that the study is implemented in a timely manner and at a high professional level as required by the ToR.

Our quality assurance covers various – inter-related – dimensions, including the:

- Quality of deliverables, esp. the final evaluation report which was measured against the IEG and DEVCO's Evaluation Unit quality criteria[6]. This includes the respect of the independence of IEG and its internal quality control processes.
- Process organisation within the evaluation team and applied methods according to best professional standards and the guidelines set forth by the IEG and DEVCO's Evaluation Units;
- Timeliness and reliability of service delivery;
- Utility of the evaluation for its users including aspects of the evaluation focus, consideration of specific information and decision making needs;
- Stakeholder and client relationship management with DEVCO, IEG and key stakeholders at HQ and national level.

Quality assurance was ensured at three main levels:

- Continuous supervision of the evaluation work and deliverables by the IEG as well as the Team Leader and the Deputy Team Leader of the EU team of evaluators.
- Control of the quality of the methodology and the deliverables by a Quality Director appointed by Particip. The quality director is not part of the evaluation team and thus brought in an external critical perspective on the evaluation process and outputs.
- Involvement of other stakeholders (incl. Management and Reference Groups) in the quality assurance process, which was facilitated by the IEG and DEVCO's Evaluation Unit.

Our approach took into account that ensuring quality assurance is an incremental process. If, for instance, the understanding of the intervention strategy is not meticulously developed, all successive steps of the evaluation, such as the formulation of the EQs, etc. could be substantially flawed. Corrective measures were thus initiated at an earliest possible stage to avoid the accumulation of quality deficiencies that would have been hard to remedy at a later stage.

The team also abided by international ethical standards for evaluations as set by the DAC[7]. Particip is a member of the Global Compact and as such already employs all the UN and DAC ethical standards in all activities of the company, as set down in Particip's Code of Conduct[8].

The IEG carried out in parallel its internal quality assurance:

- During the preparation phase, IEG carried out its internal quality control through the engagement of the manager of the IEG public sector evaluation unit with the IEG evaluation team, keeping the management of the IEG appraised at critical junctures of preparation.
- During the synthesis phase, the draft evaluation report underwent a thorough peer-review process under the direction of the manager of the IEG public sector evaluation unit. Peer reviewers internal and external to the World Bank Group engaged to ensure evaluation accuracy, credibility, and relevance of the evaluation and the final report.

[6] The standard evaluation methodological approach of DEVCO's Evaluation Unit considers nine quality criteria following: Meeting needs, Relevant scope, Defensible design, Reliable data, Sound data analysis, Credible findings, Valid Conclusions, Usefulness of recommendations and Clarity of the report.

[7] See www.oecd.org/dataoecd/55/0/44798177.pdf

[8] See also Particip's website: http://www.particip.de/company/principles/

Annex 6: Technical note on the econometric analysis

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1 Summary

This technical annex presents the econometric analysis of secondary data. The analysis estimates the effects of a range of service inputs (physical, financial and human resources) on development outcomes. Different panel data estimation techniques are used to exploit inter-annual changes in key variables within districts, thus minimising potential bias in the causal interpretation of coefficient estimates. The underlying panel datasets cover all districts of Uganda over the period 2006 to 2013 and were primarily created from micro data of sector-specific Management Information Systems (service unit censuses), as well as other sources. The analysis focuses on the sectors of Education and Water & Sanitation, two sectors where reliable time series are available.

Results suggest that educational access (female and male enrolment ratios) at primary and secondary levels improved as a consequence of additional schools, classrooms, seating/writing spaces and teachers. Boys' enrolment rose in addition with expanding schools to higher grades, and girls benefited from gender-segregated schools. Educational achievement indicators responded positively to additional teachers and improved teacher qualification, seating/writing spaces and reduced overcrowding of classrooms. There is little evidence that fiscal transfers to districts directly affected educational outcomes beyond the physical and human resources funded through them.

In the Water and Sanitation sector, general fiscal transfers improved selected Golden Indicators even beyond their potential effects on water sources. Rural functionality rates rose in response to UNICEF support and additional functional water points. The effect of water sources on other outcomes is ambiguous.

2 Objectives and link to evaluation questions

The objective of the following analysis is to trace trends in selected development outcomes and, in particular, identify their causal determinants including resources provided under public sector policies or programmes. It thus aims to provide evidence for the Step 2 analysis, in particular for EQ 8 (Education) and EQ 9 (Water and Sanitation). While obtaining descriptive trends in outcomes is relatively straightforward with adequate data, a much more challenging task is to identify the causal determinants of these changes. This is where advanced econometrics techniques play a key role.

The econometric analysis does not aim at estimating the effects of budget support directly, but provides a contribution to understanding whether increased provision of service inputs leads to better development outcomes. To the extent that those service inputs are - or at least can be - provided by the national government with the help of budget support, the econometrics can help to indirectly link budget support with development outcomes (see step 3 analysis in the main evaluation report).

Due to the nature of data and estimation techniques, this exercise is largely limited to 'hard', countable resources (e.g. classrooms, teachers, water sources). Knowing the effects of physical resources on development outcomes offers useful insight into the intervention logic even if the exact source of finance for these inputs cannot be determined from the data. This is particularly convenient since the main unit of this econometric analysis is the district, rather than the central level (see details in Section 3.2.1 below). The results from district-level estimates thus have implications for sector policies implemented by the national and local authorities.

3 General methodology

3.1 Econometrics versus standard statistical analyses

The general purpose of econometric analysis is to identify the existence and intensity of causal relations between specific variables, such as hypothesised links in an intervention logic or theory of change. While statistical methods measure numerical relations (such as correlations) between variables, but are in general silent on causalities, econometrics goes beyond this step and aims to provide causal assessments, e.g. of the mechanisms of development interventions.

The differences in resources required for a statistical versus an econometric analysis are often substantial, with the latter imposing a much higher data burden and methodological challenges. Moving from correlation to causal analysis typically requires considerable extra time for identification and collection of adequate data, construction of complex datasets, fitting quantitative models to empirical and theoretical context, as well as verification and revision of methodological details.

The fundamental methodological choice in this study was hence between a statistical (or 'light' econometric) analysis for a very broad set of variables, but with little causal implications, versus identifying causal effects in a limited set of outcome equations (using advanced econometrics). This evaluation has opted for the last approach.

3.2 General econometric approach

3.2.1 Choice of the unit of observation

In the current analysis, the unit of observation is the district (70 districts as per administrative division in 2006, 112 districts in 2013). With at most ten years of available data, neither the national level nor four regions of Uganda would yield sufficient sample size for an econometric analysis. Using units below the district is not an option either since data for a range of key variables are not available at a more disaggregated level than the district. In addition, most outcomes (e.g. enrolment ratios, access to water points) require a minimum level of geographic aggregation and are difficult to measure at service provider level, for instance. In the current setting, the challenges in causal inference stemming from potential district externalities and unobserved cross-district policy shocks are likely to be limited[1].

3.2.2 Identification issues in cross-sectional versus panel datasets

In econometrics, 'identification' refers to interpreting a specific coefficient estimate in a regression as a *causal* effect of the (independent) variable of interest on the outcome (dependent variable), rather than a mere measure of correlation between the two variables.

The identification strategy in this evaluation is based on panel data for all districts of Uganda, which aims to disentangle the effects of service inputs from those of other determining factors on the outcome indicator in question. Box 1 provides a common example of so-called 'omitted variable bias' to illustrate how unobserved factors may distort the causal interpretation of coefficient estimates.

Box 1 Omitted variable bias in the Education sector

Consider the following example. Suppose we want to identify the effect of additional classrooms on enrolment ratios in secondary schools, using a sample of district-level observations. Some districts have few classrooms per school and low levels of school enrolment, while others show the reverse situation. That is, the data reveal a positive correlation between educational inputs and outcomes. However, this statistical observation does not necessarily imply that additional classrooms would lead to higher enrolment. The reason is the presence of unobserved factors (variables without data not included in the regressions) that may affect *both* school resources and enrolment simultaneously and produce so-called 'omitted variable bias'.

One such factor could be household income. Districts with wealthier households tend to have more classrooms per school than poorer districts since they (i) generate more public revenues to be used for school infrastructure and (ii) benefit from larger private contributions of households to the school system. At the same time, household wealth is also associated with higher enrolment ratios, for instance since child labour is less common and (adult) labour market returns are higher, hence more demand for education.

If household wealth is not accounted for, the magnitude of the causal relation between classrooms and enrolment may actually be much lower than suggested by statistical correlations – with very different policy implications. Enrolment ratios do not mainly improve due to additional classrooms, but higher household income, which also has the 'side effect' of funding new classrooms.

To address this problem, the current analysis hence adopts an approach based on a panel dataset. The key advantage of this method is to dramatically reduce omitted variable bias - the possibility that coefficient estimates cannot be interpreted as causal effects if 'unobserved' variables (those not included in the regressions due to lack of data) are correlated with both the outcome and the input of interest. Specifically, the estimator presented below eliminates potential omitted variables bias from differences in *time-invariant* characteristics of districts and only leaves unobserved *time-variant* factors at district level as potential sources of bias. On the one hand, this econometric identification strategy implies that the number of variables that need to be 'controlled for' in the analysis is much smaller. On

[1] Two theoretical challenges arise from selecting the district as the main unit of analysis. First, there may be externalities in form of spillovers of education or water/sanitation resources to other districts (such as schools or water points located near a district border that also serve the population living a few kilometres away across the border). The consequence would be estimation bias (coefficient estimates do not represent the true causal effects), depending on the size of the spillovers. However, with an average district area of 3,450 km2 (2006 division) equivalent to about 60km x 60km, the potential for cross-border service provision seems limited. Second, unobserved factors of different districts within the same region may be correlated, which may lead to misrepresentation of the statistical uncertainty (standard errors) in the results. For instance, this could happen if the local governments of two neighbouring districts coordinate their policies and thus affect each other's development outcomes. However, this problem can be solved by 'clustering' standard errors at district level (see below).

the other hand, it requires data to be collected from the same units of observations over several (ideally regular) periods of time.

3.2.3 Estimation methods

To illustrate the identification problem and strategy, consider the following equation. Any specific outcome indicator (dependent variable) ***Y*** in district *i* located in region *r* measured in year *t* is a function of a set of geographic and time indicators, as well as *K*+*J* independent variables, which comprise *K* variables of interest and *J* control variables;

$$\boldsymbol{Y_{irt}} = \alpha_i + + \varphi_r + \mu_t + \varphi_r \times \mu_t + \delta \boldsymbol{Y_{ir,t-1}} + \beta_1 \boldsymbol{X_{1,irt}} + \ldots + \beta_K \boldsymbol{X_{K,irt}} + \gamma_1 \boldsymbol{Z_{1,irt}} + \ldots + \gamma_J \boldsymbol{Z_{J,irt}} + \varepsilon_{irt}.$$

For example, the female enrolment ratio in primary (***Y***) for the year 2008 (*t*) in district Mpigi (*i*) located in the Central Region (*r*) is a function of:

α_i	Constant district characteristics (e.g. geography of *i* = Mpigi), whether observed or not
φ_r	Constant characteristics of *r* = Central Region, whether observed or not
$\varphi_r \times \mu_t$	Changes in *r* = Central Region in year *t* = 2008, whether observed or not
μ_t	Changes at national level in *t* = 2008, whether observed or not
$\boldsymbol{Y_{ir,t-1}}$	Observed outcome in previous year (here: female enrolment ratio in primary in *t* = 2007)
$\boldsymbol{X_{1,irt}}$, … , $\boldsymbol{X_{K,irt}}$	Independent variables of interest with available data, such as key financial and physical resources for service provision in the given sector and for which the analysis aims to identify/estimate causal effects
$\boldsymbol{Z_{1,irt}}$, … , $\boldsymbol{Z_{J,irt}}$	Observed control (other independent) variables, such as population size, whose coefficient estimates have no causal interpretation, but which help identify the causal effects of $\boldsymbol{X_{1,irt}}$ … $\boldsymbol{X_{K,irt}}$
ε_{irt}	Unobserved changes – variables without data - in *t* = 2008 specific to the district (Mpigi).

The econometric strategy in this analysis is to run regressions based on the above equations, which yield a set of coefficient estimates – including those for β_1, … , β_K, which should be interpreted as causal effects of service provision inputs on the development outcome. In a model with multiple causal effects, the decision which variables are causally interpreted (variables of interest) is inevitably a somewhat subjective choice of the researcher, but it usually made based on: (i) the research question, (ii) the underlying theoretical model (from an intervention logic, literature, etc.) and (iii) an assessment whether the identifying assumptions are likely to hold for the given variables.

The identification strategy for supporting this interpretation needs to address two main potential challenges:

a) Omitted variable bias. The unobserved factors, either time-variant (ε_{irt}) or constant (α_i), are correlated with both Y_{irt} and, for example, $X_{1,irt}$.
b) Reverse causality bias. The outcome Y_{irt} affects the variable of interest, for example $X_{1,irt}$, in the same period - and not the other way around[2].

In the following, these challenges are addressed with three different estimation methods and related robustness checks. All estimators and specifications exclusively exploit inter-annual changes in variables *within* districts over time. The key advantage of this method is to eliminate potential estimation bias from unobserved constant district characteristics (α_i).

In addition to the three estimators, it is possible to use pooled Ordinary Least Squares estimation, which basically removes the panel dimension and treats all observations equally as an "as-if" cross-sectional dataset. As expected, the results from pooled OLS (not reported) are quite different from those of panel data estimation – indicating omitted variable bias - and thus provide an empirical justification for using panel rather than cross-sectional data.

[2] A different concern is serial correlation in the error term ε_{irt}, which occurs if the error terms of two or more adjacent time periods are correlated, for example through an abrupt decrease in unobserved income of households in a given district that occurs in 2006 but lasts until 2008. Serial correlation does not bias the coefficient estimates, but may understate their standard errors (a measure of statistical uncertainty). However, the standard errors can be computationally 'corrected' in the estimation (by clustering them at district level, see further below).

4 Data

4.1 Data requirements and structure

Drawing meaningful causal inference based on the previous estimation approach imposes high data requirements - in particular, a set of observations for all districts of Uganda over several years of the evaluation period. The panel data estimators proposed above are based on sufficient numbers of both observed units (sample size) and time periods per unit (variation). Adequate data sources are those that jointly fulfil four main characteristics:

- Data are available at district or a lower level of aggregation. The district level is the highest level of aggregation at which sample size is large enough for econometric estimation.
- Several rounds of data from the evaluation period 2004-2013 must be available for the same (all) districts. Besides sample size (number of districts), statistical significance requires sufficient identifying variation within districts, which crucially depends on the number of observations per district.
- Reported values must be representative at district level, ideally a census of service units. In the opposite case, there is technically too much 'measurement error' in either the outcomes of the variables of interest, which results in results in very low precision of the estimates or strong estimation bias, respectively.
- The data sources must contain information on both service inputs and outcomes – otherwise it not possible to establish links between the key variables.

Most existing surveys do not satisfy these data requirements, since they usually do not form a panel over the evaluation period, collected data from too few units per district, and/or lack relevant variables for the purpose of the analysis[3].

The only two existing data sources that systematically comply with the above data requirements include:

- Sector-specific Management Information Systems (MIS) administered by the corresponding line ministries, which include data on outcome indicators, physical and human resources and constitute the main data sources of this analysis;
- The BOOST database by the World Bank, which compiles data on public expenditures in Uganda and, in particular, includes central government transfers to districts.

4.2 General data limitations and how they were addressed

4.2.1 Differences in data availability and sector focus

Given the key role of MIS data in the econometric analysis, the evaluation team spent substantial time with collecting (or attempting to collect), verifying and processing data from:

- The Education Management Information Systems (EMIS) managed by the Ministry of Education and Sports
- The Water Supply Database managed by the Ministry of Water and Environment
- The District Health Information System (DHIS) managed by the Ministry of Health.

For each sector, the quality and usefulness of the MIS data actually obtained was affected by a number of factors:

- Average data quality (e.g. as regards missing values, harmonisation) and coverage of service units in 2004-2013
- Number of relevant variables actually processed and available in the MIS
- Technical constraints in migrating electronic data from previous versions of the MIS
- Accessibility of electronic data/ease of obtaining authorisation
- Contact and cooperation with technical MIS staff in the Ministry
- Availability of publications as alternative source.

[3] For this reason, datasets related to the Uganda National Household Survey, Uganda National Panel Survey, Demographic and Health Survey, National Assessment of Progress in Education, and the Service Delivery Indicators for Uganda were not be directly used in the regressions.

After assessing these factors for each factor over the course of data collection, it was decided to focus the econometric analysis of secondary data on the sectors of Education (detailed analysis) and Water and Sanitation (shorter analysis). In particular the Education sector provides a rich set of relevant microdata that yields a spectrum of statistically precise coefficient estimates, convincing results from robustness checks and a number of causal links between school resources and educational outcomes consistent with standard intervention logic.

The Health sector was excluded from the econometric analysis. According to the Ministry of Health itself, the data quality until 2008 is modest and data from predecessor versions of the current District Health Information System (DHIS2), which started in fiscal year 2011/12, have not been migrated to the DHIS2 in such a way that they could be easily extracted. The online access granted by the Ministry of Health to the evaluation team provides relevant **data from 2012/13 only**. Potential alternatives have been analysed but did not yield the expected results. First, cross-sectional data from other surveys face the limitations for analysis and causal inference mentioned above. The Uganda National Household and Panel Surveys collected some data for health service inputs at community level, but observed very few districts household (health outcomes) per community. DHS data are only available for 2006 and 2011 and are not representative at district level, and neither are the Uganda Service Delivery Indicators 2012. As a consequence, the risk of failing to obtain statistically significant results would be high, due to technically large 'measurement errors' (district means estimated from few units per district). The main publications that summarise specific MIS data (Sector Performance Reports and Statistical Abstracts of the Ministry of Health) have only been made available to the evaluation team for recent years, also resulting in a too short time series.

4.2.2 Limited information on context-specific factors

The MIS listed above are censuses since they aim to collect annual data from *all* service providers – primary and secondary schools, or local Water and Sanitation Committees. Given the resource requirement for these systems and their primary purpose of informing line ministries and stakeholders about service delivery inputs and outcomes, it is not surprising that the MIS contain little contextual information about broader population characteristics, economic activity, income, etc. However, as long as these contextual factors did not change much within districts over the study period, the potential risk of omitted variable bias as a consequence of ignoring them in the regressions is limited.

4.2.3 Changes in the district division over time

Panel data estimation compares changes within the *same* units (here: districts) over time. In practical applications with geographic-administrative units, it is not unusual that the borders of a subset of units changes over time. In Uganda, several new districts were carved out in the course of the evaluation period, which doubled the number of districts from 56 in 2004 to 112 in 2013. In the fiscal year 2005/06, the earliest period in the datasets used here, there were 70 districts.

This poses the challenge of harmonising the unit of observation for the regressions. Conceptually, there are two ways of doing this, depending on the structure of raw data:

a) **Unit of observation = mother district as per division 2006:**
   Most of the current sources of raw data are based on the respective district division valid in each given year: the Water Supply Database and Sector Performance Reports (MoWE), data on schools exams (UNEB), the BOOST database (World Bank) and most population data (UBoS and other). In these cases, the harmonised unit of observation should be the district in the year with the fewest districts – that is, the 'mother' district at the beginning of the study period. The reason is simple: it is usually possible to convert smaller into larger aggregates, but not vice versa. Specifically, the division is harmonised overt time by aggregating, for every year, the variable values over all districts that were carved out from the same mother district after the initial year. The result is a panel dataset with the **70 districts** as per district division 2005/06.
b) **Unit of observation = district as per division 2013:**
   The schools in the EMIS microdata are assigned to the district division 2013 throughout all years. The harmonisation was already done by the data provider (MoES). Using the exact location of individual service units (schools), their observations for every year were retrospectively assigned to the 2013 district even though it was actually not yet carved out. As long as no data from other sources added, this produces a panel dataset with **112 districts** per year.

A dummy is added to all regressions that takes the value 1 in the post-split period to account for unobserved systematic differences (e.g. change in political structures, administrative overhead expenditure) between carved out districts and their mother districts,. For example, the variation in the district division may potentially have affected the composition and quality of local governments. While no systematic data about these political changes are available, note that the dummy captures *all*

systematic changes directly resulting from redistricting and *de facto* turns them into 'observed' variables, thus minimising omitted variables bias. Unobserved policy changes not related to changes in the district division could still be a potential source of bias, though (if they simultaneously affected both inputs and outcomes).

5 Application to specific sectors

5.1 Education

5.1.1 Data sources and their limitations

The following sources of raw data were used for the analysis of the Education sector:

1. **EMIS data for all primary and secondary schools** for the school years 2006 to 2013.
   This is the most comprehensive data source for the econometric analysis. The Ministry of Education and Sports provided a customised extract of school-level data from the current EMIS version, plus migrated data from the predecessor version implemented in 2006. Data from earlier years was not available. The EMIS aims at being a census of all government and private schools of Uganda. The data are collected through standardised data forms completed in annual intervals by the head teacher of every school and contain detailed data on school characteristics, physical resources, enrolment, teachers and educational activities. The EMIS extract provides some of the outcomes, as well as broad range of variables of interest and control variables.
2. **UNEB data on Primary Leaving Exams** (registration and results) at district level, school years 2006 to 2011 and 2013 provided through the MoES (2012 not made available) and used as outcome variables.
3. **Financial transfers from the national to district governments as listed in the BOOST database** for the fiscal years 2005/06 to 2011/12, which serve as variables of interest and control variables.
4. **UBoS population data by age and gender** per district, used as denominators for some outcome variables as well as additional control variables. The data are from the 2002 population census and UBoS population projections for 2006 and 2007.

Table 1 below summarises the data sources for the Education sector.

Table 1 Data sources for econometric analysis, Education sector

Data source	Data provider	Variable categories
EMIS school-level data	MoES	Outcomes, variables of interest, control variables
PLE results	UNEB via MoES	Outcomes
Fiscal transfers	World Bank	Variables of interest, control variables
Population	UBoS	Outcomes, control variables

While combining these data sources into a panel generates the best possible dataset for the analysis, the data do face a few limitations**.** The most important are:

- The school status – government versus private – suffers from coding errors in 2006 to 2009. It is thus impossible to separately look at public schools, the main indirect beneficiaries of budget support. While enrolment ratios and school completion rates are measured in % of school age population and by definition not separated by school status, it would have been desirable to measure the effects of resource improvements specifically in public schools – provided that these are very different from the effects of changes in private schools. If they are not, the estimates correctly reflect the impacts among public schools.
- Coding errors in the EMIS also appear in the qualification of secondary school teachers; their effect on outcomes can hence not be identified.

In addition, there is a limited amount of measurement error in educational outcomes – yet, often much smaller than in estimated district means from surveys. This imprecision is due to three factors:

a) *Population estimates:* Population is only available in form of estimates (by UBoS for school years 2006 and 2007; own projections based on UBoS methods for 2008 to 2013).

b) *School coverage below 100%:* Not all schools are covered in all years. For example, when moving to a new EMIS in 2010, the number of secondary schools visibly declined during this transitional stage. However, as long as this (small) share of under-coverage is approximately the same across districts, estimates are barely affected.

c) *Inflated enrolment data*: Field work suggested that schools have an incentive to – and actually do - inflate enrolment data, partially due to the fact that the allocation formula for capitation grants is based on the number of enrolled students. However, as long as the share of over-reporting in enrolment is (i) roughly constant within districts throughout 2006 to 2013 and/or (ii) the same for all districts in a given year – which seems a reasonable assumption – estimates are again not affected. Inflated enrolment numbers would then be absorbed in the terms α_i or μ_t, respectively.

5.1.2 Construction of the datasets and descriptive statistics

For the Education sector, four different datasets were constructed and used in the analysis: primary and secondary schools, each of them with 2006 and 2013 district divisions.

From the set of individual EMIS school-level extracts, variables were aggregated at the levels of districts in the 2006 or 2013 divisions. The method of aggregation (sum, average, % share of schools, etc.) depended on the specific variable. Basic consistency checks for the microdata and their district aggregates were performed, even though the effect of a data error in an individual school has little effect on the district values (more than 200 primary schools per mother district 2006 division).

Additional outcomes were calculated from UNEB data and linked to the EMIS data.

The outcome indicators are defined as follows (the first applies to both primary & secondary levels):

Gross enrolment ratio	= no. of enrolled students : estimated population of official school age;[4]
Completion rate	= no. of students who passed PLE : population of official age for taking PLE;
Pass rate	= number of students who passed PLE : students who sat PLE.

All outcomes are computed for (i) boys, (ii) girls, (iii) gender difference (boys minus girls).

The denominators of enrolment ratios and completion rates require projections of the school age population by age and gender since the EMIS contains only enrolment, but not district population. Box 2 provides details on these population projections.

Box 2 Population projects for the Education sector

Using available census data for 2002 and estimates for 2006 and 2007, the district population was projected in the spirit of the method for sub-national projections outlined in UBoS (2007) – here, for each age group and gender:

$$P_t = P_0 \times e^{rt}.$$

P_t is the projected age- and gender-specific population in year t, P_0 is the population in the baseline period, e is Euler's number and r is the average exponential growth rate of population in the first years of the baseline period[5]. For the current purpose, the formula was first applied to the period 2002 to 2006. From rearranging the equation, $r = [\ln(P_{2006}/P_{2002})]/4$, where *ln* denotes the natural logarithm[6]. The value of r is then plugged into the original equation to project population by age and gender for all years of the post-2007 period, setting 2002 as the baseline period:

$$P_t = P_{2002} \times e^{r\,(t-2002)} \text{ for all years } 2008 \leq t \leq 2013.$$

The implied national averages of the gross enrolment ratios and completion rates are consistent with those reported in other sources. From visual inspection of the outcome histograms, a minor number of outlier districts in specific years were dropped from the sample. In any case, whatever the potential deviations between actual and projected population, they could only bias estimates if they were systematically related to school resources – an unlikely scenario.

The third data source, the BOOST database, was reduced to fiscal transfers to districts and municipalities. For consistency with the EMIS and UNEB data, all municipalities were merged with their surrounding rural districts. Fiscal transfers earmarked for education were created as separate variables and all other transfer aggregated into one single variable. In the regressions, fiscal transfers are

[4] Note that, in the regressions for enrolment ratios, certain variable of interest are expressed in % of the child population (e.g. teachers per 1,000 children of school age), not in % of enrolled students. Otherwise, an exogenous enrolment 'shock' that drives more children into school would lead to a congestion effect of existing school resources (e.g. teacher-student ratio) and produce coefficient estimates with a sign opposite to what one would expect. For achievement outcomes, in contrast, the variables of interest may be expressed in terms of enrolled students which are relatively invariant to enrolment shocks.

[5] Or, if data are available, prior to the baseline period, as in the original version of UBoS (2007).

[6] Alternative population projections based on r obtained from the growth rate between 2006 to 2007 (rather than 2002 to 2006) were also used in the regression, with very similar results.

included with one year lag relative to the educational outcome, which accounts for implementation lags and the fact that complete data were only available until fiscal year 2011/12.

Finally, different sources and years were linked through a district 'mastersheet', which displays the names of each of the 112 districts in every year of the period 2006 to 2013 – either the same name, if it already existed in that year, or the name of the mother district from which it was carved out. Spelling differences of district names among data sources were adjusted manually. The dataset for the 2013 district division 2013 does not include UNEB and BOOST data. As evident from Table 2 and Table 3 further below, each district division offers specific advantages for running the regressions. The data for the 2006 division includes the full set of available variables, but has only half of the total number of observations, which may reduce statistical significance and potentially fails to detect some relationship between inputs and outcomes in the data. Using the 2013 district division potentially produces more precise estimates, but necessarily excludes those variables for which the raw data are not in this format.

The resulting descriptive statistics for the primary and secondary school datasets are given in Table 2 and Table 3 below. Descriptive statistics serve two purposes: for data consistency checks and to support the economic interpretation of coefficient estimates.

Table 2 Descriptive statistics for primary school datasets (2007-2013)

Year of district division used for creating dataset	Division 2006	Division 2013
Number of districts as per district division	70	112
Number of complete observations in years 2007-2013	385	779
Educational outcomes (dependent variables)		
Gross enrolment ratio (boys)	1.456 (0.397)	1.434 (0.360)
Gross enrolment ratio (girls)	1.420 (0.406)	1.393 (0.358)
Gross enrolment ratio (gender gap)	0.036 (0.099)	0.041 (0.116)
School completion rate (boys) [a, b]	0.531 (0.163)	. .
School completion rate (girls) [a, b]	0.445 (0.197)	. .
School completion rate (gender gap) [a, b]	0.091 (0.123)	. .
Pass rate Primary Leave Exam (boys) [a, b]	0.854 (0.074)	. .
Pass rate Primary Leave Exam (boys) [a, b]	0.799 (0.095)	. .
Pass rate Primary Leave Exam (gender gap) [a, b]	0.056 (0.043)	. .
Financial resources		
Central government transfers budgeted for recurrent expenditure in primary education (previous year, in billion USh) [b]	6.180 (3.750)	. .
Central government transfers budgeted for School Construction Program (previous year, in billion USh) [b]	0.705 (0.725)	. .
Total of other budgeted central government transfers (previous year, in billion USh) [b]	11.239 (6.069)	. .
Physical resources: general school characteristics		
Number of schools per 1,000 children of official primary school age in the population	2.934 (1.100)	2.900 (1.051)
Share of schools with classes up to P7	0.791 (0.107)	0.783 (0.117)
Share of schools located in rural areas	0.794 (0.118)	0.804 (0.133)
Share of schools located in periurban areas	0.117 (0.067)	0.105 (0.067)
Physical resources within schools		
Average number of classrooms per school	8.146 (1.268)	8.180 (1.345)
Student-classroom ratio	64.333 (16.974)	64.496 (17.946)
Average number of adequate seating and writing spaces per classroom	41.215 (7.825)	40.168 (8.426)
Share of students with adequate seating and writing space	0.663 (0.117)	0.650 (0.136)
Average number of textbooks per school	750.2 (360.4)	779.7 (382.9)
Textbook-student ratio	1.419 (0.450)	1.468 (0.466)
Physical resources: water and sanitation		
Share of schools within 1 km distance to nearest main water source	0.661	0.643

	(0.130)	(0.137)
Share of schools with improved water sources	0.939	0.931
	(0.058)	(0.075)
Number of separate girls' toilets with doors or shutters per 1,000 girls of official primary school age in population	26.030	25.089
	(8.923)	(8.846)
Number of separate boys' toilets with doors or shutters per 1,000 boys of official primary school age in population	26.769	25.734
	(9.402)	(9.237)
Number of teachers per 1,000 children of official primary school age in population	27.375	26.789
	(8.433)	(7.743)
Human resources		
Student-teacher ratio	54.258	54.800
	(12.197)	(13.156)
Share of female teachers	0.374	0.363
	(0.104)	(0.114)
Share of underqualified (i.e. licensed or Grade II) teachers	0.060	0.069
	(0.054)	(0.066)
District characteristics		
Dummy for years after the split of the mother district	0.283	.
	(0.451)	.
School average of distance in km to District Education Office	22.892	23.607
	(6.910)	(8.671)
Share of schools with more than two inspections per year	0.631	0.597
	(0.125)	(0.145)
Population of boys of official primary school age (6-12 years)	41,481.3	26,882.1
	(21,040.3)	(17,268.5)
Population of girls of official primary school age (6-12 years)	43,145.9	28,201.0
	(24,761.0)	(21,951.0)

Notes:
The unit of observation is the district as per district division in the given year (column header). The cells display the mean values of the variables across districts, with standard deviations in parenthesis. All school variables refer to primary schools.
[a] Number of complete observations in regressions for educational achievement outcomes is smaller (312 obs.) since data not available for school year 2012.
[b] Variables not available in format of district division 2013, hence not used.

Table 3 Descriptive statistics for secondary school datasets (2007-2013)

Year of district division used for creating dataset	Division 2006	Division 2013
Number of districts as per district division	70	112
Number of complete observations in years 2007-2013	385	806
Educational outcomes (dependent variables)		
Gross enrolment ratio (boys)	0.304 (0.132)	0.315 (0.190)
Gross enrolment ratio (girls)	0.232 (0.129)	0.248 (0.208)
Gross enrolment ratio (gender gap)	0.072 (0.057)	0.066 (0.083)
Financial resources		
Central government transfers budgeted for recurrent expenditure in secondary education (previous year, in billion USh) [a]	1.940 (1.630)	. .
Total of other budgeted central government transfers (previous year, in billion USh) [a]	16.695 (8.878)	. .
Physical resources: general school characteristics		
Number of schools per 1,000 children of official secondary school age in the population	0.675 (0.282)	0.779 (0.727)
Share of girls-only schools	0.044 (0.041)	0.040 (0.051)
Share of boys-only schools	0.018 (0.034)	0.016 (0.039)
Share of schools with classes up to S6	0.358 (0.166)	0.324 (0.181)
Share of schools located in rural areas	0.566 (0.168)	0.589 (0.207)
Share of schools located in periurban areas	0.233 (0.107)	0.213 (0.131)
Physical resources within schools		
Average number of classrooms per school	8.338 (1.668)	8.264 (1.960)
Student-classroom ratio	47.993 (9.816)	46.780 (11.579)
Average number of adequate seating and writing spaces per classroom	42.984 (9.090)	41.645 (10.538)
Share of students with adequate seating and writing space	0.898 (0.081)	0.894 (0.098)
Average number of textbooks per school	1,226.9 (747.9)	1,067.4 (742.9)
Textbook-student ratio	2.943 (1.449)	2.654 (1.442)
Physical resources: water and sanitation		
Share of schools within 1 km distance to nearest main water source	0.753 (0.142)	0.720 (0.179)
Share of schools with improved water sources	0.967 (0.045)	0.954 (0.066)
Number of separate girls' toilets with doors or shutters per 1,000 girls of official secondary school age in population	7.843 (4.564)	8.735 (9.192)
Number of separate boys' toilets with doors or shutters per 1,000 boys of official secondary school age in population	8.574 (5.120)	9.468 (9.990)
Number of teachers per 1,000 children of official secondary school age in population	12.484 (6.251)	13.732 (10.757)
Human resources		
Student-teacher ratio	22.059	21.578

	(5.457)	(5.860)
Share of female teachers	0.205	0.198
	(0.046)	(0.052)
District characteristics		
Dummy for years after the split of the mother district	0.291	.
	(0.455)	.
School average of distance in km to District Education Office	17.387	19.027
	(6.331)	(9.445)
Share of schools with more than two inspections per year	0.260	0.223
	(0.136)	(0.151)
Population of boys of official secondary school age (13-18 years)	30,050.2	18,815.7
	(16,210.8	(14,152.7)
Population of girls of official secondary school age (13-18 years)	33,261.8	20,873.4
	(20,212.1)	(18,296.2)

Notes:
The unit of observation is the district as per district division in the given year (column header). The cells display the mean values of the variables across districts and years, with standard deviations in parenthesis. All school variables refer to secondary schools.

[a] Variables not available in format of district division 2013, hence not used.

5.1.3 Results and robustness checks

5.1.3.1 Access to education (gross enrolment ratios)

The indicator for educational access chosen for this analysis is the gross enrolment ratio. Estimation results are presented in Table 4, Table 5, Table 6 and Table 7, which make use of all four datasets: primary and secondary schools, each using the 2006 and 2013 district division. While the distinction by school levels may potentially shed light into different mechanisms of educational resources, the different district divisions serve mainly as additional robustness and consistency checks of the estimation strategy and the data (details further below).

Each of the tables presents coefficient estimates in three vertical boxes, which coincide – from left to right – with the different panel data estimators selected for the econometric analysis

Within each estimator, three different columns report the effects of the given inputs on the gross enrolment ratios for: (i) girls, (ii) boys and (iii) the gender difference (boys minus girls).

The rows display the chosen variables of interest (X_1, … , X_K) in the equations. These variables fall in three broad categories: financial, physical and human resources. The selection corresponds to standard variables in theoretical and applied studies in the field of educational economics. Intuitively, these variables are those that one would expect to potentially affect the quantity of educational supply, such as the capacity of schools to host pupils, but not necessarily the quality of education.

In contrast to the variables of interest, the set of control variables ($Z_{1,irt}$, … , $Z_{J,irt}$) is listed in the footnotes of the tables. The resulting coefficient estimates are not reported since they are not the objective of interest. Control variables were merely included to reduce omitted variable bias among the variables of interest, but their coefficients themselves are not expected to have any causal interpretation.

Cell entries show the point estimate of the percentage point change in the given enrolment ratio induced by a one-unit change of the variable in the given row. However, as long as a specific estimate is not statistically significant from zero (denoted by *, ** or ***), the data do not say with sufficient certainty whether the given input affects the gross enrolment ratio or not. Statistical significant coefficient estimates from the preferred specification are marked in bold and constitute the main basis of evidence. The two examples in Box 3 may illustrate how coefficients can be interpreted.

Box 3 Interpretation of coefficient estimates in enrolment equations

In Table 4, consider the coefficient 0.144 in the central column for the variable “Number of schools per 1,000 children of official primary school age in the population”. Constructing one additional school per each group of 1,000 children aged 6-12 years in the district would increase the gross enrolment ratio of girls by 14.4 percentage points (i.e. bring 144 new girls into the school system). Combining different descriptive statistics from Table 2 suggests that a primary school hosts on average approximately 500 students[7]; somewhat less than half of them (240) girls. These numbers are logically consistent. While a new school has capacity for about 240 girls, about 40% of these places are likely to be filled through transfers from other schools or even remain vacant within the first year, and only 144 of the 240 places would be filled by girls who were not attending school before.

Another example, from Table 5, is the coefficient 0.004 in the ‘boys’ column of the main specification for the variable “Average number of adequate seating and writing spaces per classroom”. It says that adding one space per classroom increases the male gross enrolment ratio by 0.4 percentage points (4 boys per 1,000 boys of primary school age). Combining descriptive stats from Table 2 suggests that one additional space per classroom in each school amounts to providing 25 new spaces per 1,000 children of primary school age[8]. In other words, installing or upgrading a total of six seating and writing spaces brings one additional boy into the school system.

Note that statistical significance depends on the size of the coefficient estimate relative to its standard error, a measure of statistical uncertainty. Statistical significance can be determined based on standard errors ‘clustered’ at the level of unit of observation (district), following the suggestion by Bertrand, Duflo and Mullainathan (2004) adopted in many panel data studies in the recent years. The standard errors themselves are not reported to save space.

Given the excellent data availability for gross enrolment ratios and their determining factors, the underlying econometric specifications provide a good basis for performing a number of ‘robustness

[7] Number of enrolled students per school = number of classrooms per school x the student-classroom ratio = number of schools per 1,000 children of primary school age x total gross enrolment ratio x 1,000.

[8] Number of new spaces per 1,000 children of primary school age obtained by adding one space per classroom in all schools = number of classrooms per school x number of schools per 1,000 children of primary school age.

checks'. These checks consist in modifications of the main econometric model to ensure that results are not simply a consequence of the specific estimation approach chosen by the researcher, but adequately capture the true relationships between variables. In addition to the robustness checks included in Table 4, Table 5, Table 6 and Table 7, a few additional modifications of the model were verified. The key econometric results for impacts on gross enrolment ratios are summarised in Box 5.

Box 5 Summary of econometric results for gross enrolment ratios

Districts improved their gross enrolment ratios (GERs) in primary and secondary over time with increased provision of:

- *Schools*: 1 additional school per 10,000 children of primary school age increased the male and female GERs in primary by 1.5 to 2 percentage points and somewhat less at secondary level.
- *Classrooms:* 1 additional classroom for all schools led to a roughly 3 pct. point increase in the male and female GERs at primary level and to 1 pct. point increase at secondary level
- *Adequate seating and writing space*: 1 additional space in all classrooms raised the male and female GERs in primary by 0.5 to 1 pct. points and by 0.2 pct. points in secondary.
- *Teachers:* 1 more teacher per 1,000 children of primary school age produced an increase of 1 pct. point in male and female GERs at primary level and of 0.3 pct. points in the female GER in secondary.

While the positive signs of the effects usually hold for both boys' and girls' enrolment, the magnitudes of the impacts are often different for the two and may trigger a change in the enrolment gender gap.

Boys benefited relatively more from:

- New primary and secondary schools;
- Additional classrooms and seating/writing spaces in secondary;
- Upgrading schools to the highest class: expanding 10 % of the schools to grades P7 (primary) or S6 (secondary) increased male GERs by about 2 and 0.5 pct. points, respectively.

In contrast, girls benefited relatively more from:

- Classrooms and spaces in primary;
- Increasing shares of girls-only secondary schools;
- Number of gender-segregated latrines (somewhat mixed evidence).

Table 4 Impacts of educational inputs on gross enrolment ratios (primary level), district division 2006

Estimation method →	***Panel data: Main estimation method***						***Dynamic panel data: Alternative estimator***		
National and sub-regional changes filtered	No			Yes			Yes		
Purpose	Robustness check			**Main (preferred) specification**			Robustness check		
School years covered in dataset	2007 to 2013			2007 to 2013			2009 to 2013		
Number of observations used	N = 385			N = 385			N = 251		
Dependent variable: gross enrolment ratio for …	Boys	Girls	Gdr. Gap	Boys	Girls	Gdr. Gap	Boys	Girls	Gdr. gap
Financial resources									
Central government transfers to district (in billion USh, previous fiscal year) budgeted for:									
- recurrent expenditure in primary education	-0.001	0.000	-0.001	-0.004	-0.002	-0.002	-0.007*	-0.004	-0.003**
- School Construction Programme	-0.002	-0.006	0.004*	-0.002	-0.005	0.003	-0.003	-0.004	0.003
Physical school resources									
Number of schools per 1,000 children of official primary school age in the population	0.163***	0.138***	0.024*	**0.167*** **	**0.144*** **	**0.023***	0.182***	0.189***	-0.022
Share of schools with classes up to P7	0.197	0.015	0.182***	0.263	0.125	**0.139****	0.196	0.117	0.055
Average number of classrooms per school	0.027	0.035*	-0.008	0.022	0.028	-0.006	0.029	0.042**	-0.015**
Average number of adequate seating and writing spaces per classroom	0.008**	0.009*	-0.001	**0.008*** **	**0.009*** **	-0.001	0.007**	0.007**	-0.001
Share of schools with improved water sources	-0.292	-0.301	0.009	**-0.429****	**-0.411****	**-0.018*****	-0.257	-0.205	0.094***
Number of separate girls' toilets with doors or shutters per 1,000 girls of official primary school age in pop.	-0.035**	-0.002	-0.034***	**-0.030****	0.002	**-0.032*****	-0.027	0.011	-0.036***
Number of separate boys' toilets with doors or shutters per 1,000 boys of official primary school age in pop.	0.032**	0.002	0.030***	**0.025****	-0.003	0.028	0.027	-0.011	0.036
Human resources									
Number of teachers per 1,000 children of official primary school age in population	0.014***	0.011***	0.003**	**0.015*** **	**0.012*** **	**0.003****	0.016***	0.014***	0.002
Share of female teachers	0.007	0.437	-0.430**	-0.339	0.198	**-0.537****	0.281	0.627	0.020
R^2	0.626	0.583	0.502	0.652	0.613	0.518	.	.	.

Notes: Each cell entry shows the estimated percentage point change in the given enrolment ratio induced by a one-unit change of the variable in the given row.
*, ** and *** denote statistical significance (effect different from zero) at 10 %, 5% and 1%, respectively (marked in bold in the main specification).
The unit of observation is the mother district as per district division 2006. All variables refer to primary schools in the district. Gender gap = outcome for boys minus girls. Standard errors (not reported) are clustered at the district level (for the main estimation method) or robust (alternative estimation). Additional independent (control) variables include: population of (i) boys and (ii) girls of official primary school age (6-12 years), share of schools located in rural areas, share of schools in periurban areas, school average of distance in km to District Education Office, share of schools within 1 km distance to nearest main water source, average number of textbooks per school, % of underqualified (i.e. licensed or Grade II) teachers, share of schools with more than two inspections per year, total of other central government transfer in previous fiscal year and a dummy for the years after the split of the mother district (if any).

Table 5 Impacts of educational inputs on gross enrolment ratios (primary level), district division 2013

Estimation method →	***Panel data: Main estimation method***						***Dynamic panel data: Alternative estimator***		
National and sub-regional changes filtered	No			Yes			Yes		
Purpose	Robustness check			**Main (preferred) specification**			Robustness check		
School years covered in dataset	2006 to 2013			2006 to 2013			2008 to 2013		
Number of observations used	N= 779			N = 779			N = 575		
Dependent variable: gross enrolment ratio for …	Boys	Girls	Gdr. Gap	Boys	Girls	Gdr. Gap	Boys	Girls	Gdr. gap
				Physical school resources					
Number of schools per 1,000 children of official primary school age in the population	0.201***	0.184***	0.017**	**0.180*** **	**0.163*** **	**0.017** **	0.148***	0.146***	-0.010
Share of schools with classes up to P7	0.197*	-0.026	0.223***	**0.215** **	0.001	**0.214*** **	0.090	-0.028	0.040
Average number of classrooms per school	0.024*	0.036***	-0.012**	**0.023***	**0.033*** **	**-0.010** **	0.027***	0.033***	-0.006
Average number of adequate seating and writing spaces per classroom	0.004**	0.006***	-0.002***	**0.004** **	**0.006*** **	**-0.002*** **	0.003*	0.005***	-0.001*
Share of schools with improved water sources	-0.205*	-0.218*	0.013	-0.145	-0.128	-0.017	-0.154	-0.200*	-0.003
Number of separate girls' toilets with doors or shutters per 1,000 girls of official primary school age in pop.	-0.030**	-0.005	-0.025***	**-0.029***	-0.006	**-0.023*** **	-0.020	0.002	-0.020***
Number of separate boys' toilets with doors or shutters per 1,000 boys of official primary school age in pop.	0.026**	0.004	0.022***	0.024	0.005	**0.019*** **	0.017	-0.002	0.019***
				Human resources					
Number of teachers per 1,000 children of official primary school age in population	0.009***	0.006**	0.003**	**0.011*** **	**0.008*** **	**0.002** **	0.014***	0.011***	0.002***
Share of female teachers	-0.238	0.119	-0.357***	-0.405	0.014	**-0.420*** **	-0.202	-0.072	0.089
R^2	0.562	0.541	0.401	0.600	0.585	0.411	.	.	.

Notes: Each cell entry shows the estimated percentage point change in the given enrolment ratio induced by a one-unit change of the variable in the given row.

*, ** and *** denote statistical significance (effect different from zero) at 10 %, 5% and 1%, respectively (marked in bold in the main specification).

The unit of observation is the district as per district division 2013 (linked to the corresponding part of its mother district in earlier years in case of splits). All variables refer to primary schools in the district. Gender gap = outcome for boys minus girls. Standard errors (not reported) are clustered at the district level (for the main estimation method) or heteroskedasticity-robust (Arellano-Bond estimation). Additional independent (control) variables include: population of boys of official primary school age (6-12 years), population of girls of official primary school age (6-12 years), share of schools located in rural areas, share of schools located in periurban areas, school average of distance in km to District Education Office, share of schools within 1 km distance to nearest main water source, average number of textbooks per school, share of underqualified (i.e. licensed or Grade II) teachers, share of schools with more than two inspections per year.

Table 6 Impacts of educational inputs on gross enrolment ratios (secondary level), district division 2006

Estimation method →	***Panel data: Main estimation method***						***Dynamic panel data: Alternative estimator***		
National and sub-regional changes filtered	No			Yes			Yes		
Purpose	Robustness check			**Main (preferred) specification**			Robustness check		
School years covered in dataset	2007 to 2013			2007 to 2013			2009 to 2013		
Number of observations used	N= 385			N = 385			N = 246		
Dependent variable: gross enrolment ratio for …	Boys	Girls	Gdr. Gap	Boys	Girls	Gdr. Gap	Boys	Girls	Gdr. gap
				Financial resources					
Central government transfers to district (in billion USh, previous fiscal year) budgeted for:									
- recurrent expenditure in secondary education	0.002**	0.003***	0.000	0.001	0.001	0.000	0.001	0.001	0.000
				Physical school resources					
Number of schools per 1,000 children of official secondary school age in the population	0.236***	0.208***	0.029	**0.193*** **	**0.159*** **	0.034	0.285***	0.240***	0.081***
Share of girls-only schools	-0.119	0.177**	-0.296***	-0.079	0.207**	**-0.287*** **	-0.085	0.213*	-0.260***
Share of boys-only schools	-0.027	-0.030	0.003	-0.032	-0.041	0.009	-0.061	0.119	-0.146
Share of schools with classes up to S6	0.050*	0.028	0.022	**0.047***	0.018	**0.029***	0.089***	0.055**	0.024
Average number of classrooms per school	0.014***	0.011***	0.003**	**0.013*** **	**0.010*** **	0.003	0.012***	0.008***	0.005**
Average number of adequate seating and writing spaces per classroom	0.003***	0.003***	0.001***	**0.003*** **	**0.002*** **	**0.001*** **	0.002***	0.002***	0.001***
Share of schools with improved water sources	0.057	0.079**	-0.022	0.016	0.043	-0.028	0.064	0.070**	0.013
Number of separate girls' toilets with doors or shutters per 1,000 girls of official secondary school age in pop.	-0.007	0.004	-0.011**	-0.001	0.011	-0.012	-0.037***	-0.012	-0.024***
Number of separate boys' toilets with doors or shutters per 1,000 boys of official secondary school age in pop.	0.013	0.001	0.011**	0.007	-0.005	**0.012***	0.036***	0.014*	0.020***
				Human resources					
Number of teachers per 1,000 children of official secondary school age in population	-0.001	-0.001	0.000	0.002	0.002	0.000	-0.002*	0.000	-0.002**
Share of female teachers	0.189**	0.134**	0.055	0.036	0.007	0.029	-0.03	-0.068	0.066
R^2	0.736	0.738	0.438	0.778	0.778	0.522	.	.	.

Notes: Each cell entry shows the estimated percentage point change in the given enrolment ratio induced by a one-unit change of the variable in the given row.
*, ** and *** denote statistical significance (effect different from zero) at 10 %, 5% and 1%, respectively (marked in bold in the main specification).
The unit of observation is the mother district as per district division 2006. All variables refer to secondary schools in the district. Gender gap = outcome for boys minus girls. Standard errors (not reported) are clustered at the district level (for the main estimation method) or robust (alternative estimation). Additional independent (control) variables include: population of (i) boys and (ii) girls of official secondary school age (13-18 years), shares of schools located in (i) rural and (ii) periurban areas, school average of distance in km to DEO, share of schools within 1 km distance to nearest main water source, average number of textbooks per school, share of schools with > 2 inspections per year, central govt. transfers in previous fiscal year for: (i) SCP and (ii) total of other transfers, and a dummy for the years after the split of the mother district (if any).

Table 7 Impacts of educational inputs on gross enrolment ratios (secondary level), district division 2013

Estimation method →	*Panel data: Main estimation method*						*Dynamic panel data: Alternative estimator*		
National and sub-regional changes filtered	No			Yes			Yes		
Purpose	Robustness check			**Main (preferred) specification**			Robustness check		
School years covered in dataset	2006 to 2013			2006 to 2013			2008 to 2013		
Number of observations used	N= 806			N = 806			N = 591		
Dependent variable: gross enrolment ratio for …	Boys	Girls	Gdr. Gap	Boys	Girls	Gdr. Gap	Boys	Girls	Gdr. Gap
				Physical school resources					
Number of schools per 1,000 children of official secondary school age in the population	0.133***	0.057**	0.075***	**0.124*** **	**0.044** **	**0.081*** **	0.150***	0.090***	0.060***
Share of girls-only schools	-0.128*	0.066	-0.194***	**-0.116***	0.074	**-0.189*** **	-0.148	0.064	-0.218***
Share of boys-only schools	-0.105	-0.217	0.112	-0.098	-0.202	0.104	-0.136	-0.051	-0.092
Share of schools with classes up to S6	0.028	-0.001	0.029**	0.020	-0.003	**0.023** **	0.056***	0.055***	-0.003
Average number of classrooms per school	0.012***	0.009***	0.003	**0.012*** **	**0.009*** **	**0.003** **	0.007***	0.006***	0.004**
Average number of adequate seating and writing spaces per classroom	0.003***	0.002***	0.001***	**0.003*** **	**0.002*** **	**0.001*** **	0.002***	0.001***	0.001***
Share of schools with improved water sources	0.115***	0.112***	0.003	0.049	0.044	0.005	-0.012	0.048	-0.033
Number of separate girls' toilets with doors or shutters per 1,000 girls of official secondary school age in pop.	-0.028***	-0.019	-0.009	**-0.018***	-0.011	-0.007	-0.040***	-0.029**	-0.018***
Number of separate boys' toilets with doors or shutters per 1,000 boys of official secondary school age in pop.	0.031***	0.023*	0.008	**0.021** **	0.015	0.006	0.041***	0.031**	0.016***
				Human resources					
Number of teachers per 1,000 children of official secondary school age in population	0.001	0.003***	-0.002	0.002	**0.004*** **	-0.002	-0.001	0.001	-0.001
Share of female teachers	0.061	-0.067	0.127**	-0.060	**-0.177** **	**0.117***	-0.113	-0.154*	0.084*
R^2	0.753	0.615	0.428	0.779	0.660	0.465	.	.	.

Notes: Each cell entry shows the estimated percentage point change in the given enrolment ratio induced by a one-unit change of the variable in the given row.

*, ** and *** denote statistical significance (effect different from zero) at 10 %, 5% and 1%, respectively (marked in bold in the main specification).

The unit of observation is the district as per district division 2013 (linked to the corresponding part of its mother district in earlier years in case of splits). All variables refer to secondary schools in the district. Gender gap = outcome for boys minus girls. Standard errors (not reported) are clustered at the district level (for the main estimation method) or heteroskedasticity-robust (alternative estimation). Additional independent (control) variables include: population of boys of official secondary school age (13-18 years), population of girls of official secondary school age (13-18 years), share of schools located in rural areas, share of schools located in periurban areas, school average of distance in km to District Education Office, share of schools within 1 km distance to nearest main water source, average number of textbooks per school, share of schools with more than two inspections per year.

Note that a few coefficient estimates contradict the expected signs in some specification (e.g. share of improved water sources). This may be a consequence of remaining omitted variable or reverse causality bias that cannot be completely cleared out through panel data estimation. The above results should hence still be interpreted with some caution.

The lack of evidence of an effect of central government transfers for education may be surprising at first sight. However, this may simply reflect that financial resources mainly affect enrolment through physical resources acquired by them and have no *direct* effect beyond these physical resources.

5.1.3.2 Educational achievement: primary completion and PLE pass rates

Results for educational achievement are presented in Table 8 (completion rates in primary) and Table 9 (pass rates Primary Leaving Exam).

The presentation format is slightly different from those used before. Here, estimates are only shown for the preferred specification. The two other specifications, which mainly served as robustness checks are not displayed. The only difference between the two vertical panels of columns is to exclude or include variables from the BOOST database. Excluding them not only changes the set of independent variables, but also increases the number of observations since missing data for the fiscal variables no longer constrain the sample. This may potentially improve the precision (statistical significance) of the estimates.

Note that the sets of variables of interest are different from those in the equations for gross enrolment. The variables chosen here are mainly indicators for the quality of education, again borrowed from standard literature.

In general, Table 8 and Table 9 show relatively few effects that are statistically significant different from zero. One of the reasons might be impossibility of disentangling the achievement and composition effects of school resources. If the effect of improving educational quality is not only to increase educational achievement of the children already in school, but also to pull – usually weaker – out-of-school children into the school system, then average achievement of all enrolled students may not vary much. Without data for a constant student population, it is not possible to isolate the first effect.

The results for educational achievement are summarised in Box 6 below.

Box 6 Summary of econometric results for educational achievement

Districts improved their completion rates in primary as a consequence of:

- *Reduced overcrowding of classrooms:* Having 1 student less in all classrooms increased the completion rate by 0.2 percentage points.

Pass rates for the Primary Leaving Exam improved in response to:

- *Adequate seating and writing spaces:* providing adequate space to 10 pct. points more students increased pass rates by 1 pct. point among boys and 1.5 pct. points among girls.
- *Teachers:* one student less per teacher improved pass rates for boys by about 0.2 pct. points.
- *Teacher qualification:* a 10 pct. point decrease in the share of underqualified teachers produced an increase of 2 and 3 pct. points in the pass rates of boys and girls, respectively.

Similar to the estimates for enrolment, there is no evidence of a direct effect of education expenditure beyond the variables included in the regressions.

Table 8 Impacts of educational inputs on school completion rates (primary level)

	Main estimation method					
National and sub-regional changes filtered	Yes			Yes		
Central government transfers included	No			Yes		
School years covered in dataset	2006-2011, 2013			2007-2011, 2013		
Number of observations	449			312		
Dependent variable: completion rate for gender…	Boys	Girls	Gender gap	Boys	Girls	Gender gap
			Financial resources			
Central government transfers to district (in billion USh, previous fiscal year) budgeted for:						
- recurrent expenditure in primary education				0.006	0.004	0.002
			Physical school resources			
Student-classroom ratio	**-0.002*** **	-0.001	**-0.001***	**-0.002** **	**-0.002***	-0.001
Share of students with adequate seating and writing space	-0.143	-0.118	-0.025	-0.145	-0.089	-0.055
Textbook-student ratio	-0.025	-0.012	**-0.013***	-0.018	-0.007	-0.011
Share of schools with improved water sources	0.063	0.091	-0.027	-0.001	0.055	-0.056
			Human resources			
Student-teacher ratio	0.002*	0.001	0.001	0.001	0.001	0.000
Share of female teachers	0.069	0.259	-0.19	0.077	0.095	-0.019
Share of underqualified (i.e. licensed or Grade II) teachers	-0.062	-0.038	-0.024	-0.034	-0.007	-0.027
R^2	0.397	0.473	0.435	0.395	0.464	0.331

Notes: Each cell entry shows the estimated percentage point change in the given completion rate induced by a one-unit change of the variable in the given row.

*, ** and *** denote statistical significance (effect different from zero) at 10 %, 5% and 1%, respectively (marked in bold).

The unit of observation is the mother district as per district division 2006. All variables refer to primary schools in the district. Gender gap = outcome for boys minus girls. Standard errors (not reported) are clustered at the district level. Additional independent (control) variables include: population of boys of official primary school age (6-12 years), population of girls of official primary school age (6-12 years), number of schools per 1,000 children of official primary school age in the population, share of primary schools with classes up to P7, share of schools located in rural areas, share of schools located in periurban areas, school average of distance in km to District Education Office, share of schools within 1 km distance to nearest main water source, number of separate girls' toilets with doors or shutters per 1,000 girls of official primary school age in population, number of separate girls' toilets with doors or shutters per 1,000 girls of official primary school age in population, share of schools with more than two inspections per year, central government transfers in previous fiscal year for: (i) School Construction Programme and (ii) total of other transfers, and a dummy for the years after the split of the mother district (if any).

Table 9 Impacts of educational inputs on pass rates (Primary Leaving Exam)

	Main estimation method					
National and sub-regional changes filtered	Yes			Yes		
Central government transfers included	No			Yes		
School years covered in dataset	2006-2011, 2013			2007-2011, 2013		
Number of observations	449			312		
Dependent variable: pass rate PLE for gender…	Boys	Girls	Gender gap	Boys	Girls	Gender gap
Financial resources						
Central government transfers to district (in billion USh, previous fiscal year) budgeted for:						
- recurrent expenditure in primary education				0.000	0.004	**-0.004****
Physical school resources						
Student-classroom ratio	0.001	0.000	0.000	0.000	0.000	0.000
Share of students with adequate seating and writing space	**0.105***	**0.164****	-0.059	0.070	**0.168***	-0.097
Textbook-student ratio	0.001	0.005	-0.005	0.003	0.010	-0.007
Share of schools with improved water sources	-0.009	0.018	-0.027	-0.009	0.007	-0.015
Human resources						
Student-teacher ratio	-0.001	0.000	-0.001	**-0.002****	-0.001	**-0.001***
Share of female teachers	0.052	-0.007	0.059	0.191	-0.037	0.228
Share of underqualified (i.e. licensed or Grade II) teachers	**-0.214*****	**-0.279*****	0.065	**-0.260*****	**-0.339*****	0.079
R^2	0.638	0.661	0.341	0.651	0.671	0.36

Notes: Each cell entry shows the estimated percentage point change in the given completion rate induced by a one-unit change of the variable in the given row.

*, ** and *** denote statistical significance (effect different from zero) at 10 %, 5% and 1%, respectively (marked in bold).

The unit of observation is the mother district as per district division 2006. All variables refer to primary schools in the district. Gender gap = outcome for boys minus girls. Standard errors are clustered at the district level. Additional independent (control) variables include: population of boys of official primary school age (6-12 years), population of girls of official primary school age (6-12 years), number of schools per 1,000 children of official primary school age in the population, share of primary schools with classes up to P7, share of schools located in rural areas, share of schools located in periurban areas, school average of distance in km to District Education Office, share of schools within 1 km distance to nearest main water source, number of separate girls' toilets with doors or shutters per 1,000 girls of official primary school age in population, number of separate girls' toilets with doors or shutters per 1,000 girls of official primary school age in population, share of schools with more than two inspections per year, central government transfers in previous fiscal year for: (i) School Construction Programme and (ii) total of other transfers, and a dummy for the years after the split of the mother district (if any).

5.2 Water and Sanitation

The analysis for the Water and Sanitation is marked by a few key differences with the Education sector.

- First, the relevant MIS (the Water Supply Database and data from earlier Sector Performance Reports) contain much fewer variables - especially inputs - than the EMIS.
- The available Water and Sanitation raw data come at relatively higher levels of aggregation – mostly at district level, in some cases at sub-county level.
- Measurement error and structural breaks in the data are somewhat more likely than in the Education sector.
- Certain outcome indicators are not calculated based on the actual use of service points (water sources), but only from assumed numbers of users.

The overall limitations of the Water and Sanitation data are much more severe than in the Education sector. As a consequence, the econometric framework yields only a handful of coefficient estimates that have a causal interpretation and identify the determinants of Water and Sanitation outcomes. The analysis essentially reveals the contribution of selected financial and technical inputs on Water and Sanitation development outcomes, but provides very limited evidence on the effects of physical resources.

Given these limitations, the remainder of this section presents results from panel data estimation with relatively few variables and a limited set of robustness checks (also in order to not repeat all of the econometric exercises performed for the Education sector).

5.2.1 Data sources and their limitations

The sources of raw data for the analysis of the Water and Sanitation sector are the following:

1. **Water Supply Database** for the fiscal years 2009/10 to 2012/13.
   This online database includes a number of outcomes – "Golden Indicators" - for the Water sector at district and/or sub-county level, as well as variables of interest and control variables, mainly the number and functionality status of different types of point water sources. These data were collected through a baseline census of water sources in 2009/10 (Water Supply Atlas), with subsequent updates reported by local WATSAN Committees.
2. **Annual Sector Performance Reports,** in particular for the fiscal years 2005/06 to 2008/09.
   The same variables included in the Water Supply Database were manually extracted from data tables in the Sector Performance Reports for the fiscal years prior to 2009/10. In addition, reports from more recent years provided data on UNICEF and sanitation coverage.
3. **Financial transfers from the national to district governments included in the BOOST database** for the fiscal years 2005/06 to 2011/12, which provide a few variables of interest and control variables.
4. **UBoS data on rural population** (projections for 2008 and data from the 2014 census).

The data sources are summarised in Table 10 below.

Table 10 Data sources for econometric analysis, Water and Sanitation sector

Data source	Data provider	Variable categories
Water Supply Database	MoWE	Outcomes, variables of interest, control variables
Sector Performance Reports	MoWE	Outcomes, variables of interest, control variables
Fiscal transfers	World Bank	Variables of interest, control variables
Population	UBoS	Outcomes, control variables

There are several major limitations inherent in the data.

First, the data sources are not necessarily as harmonised over time as the EMIS. The presentation format of Sector Performance Reports slightly varies throughout the study period, and some variables exhibited a structural break in fiscal year 2009/10 with the introduction of the Water Supply Database and the corresponding change in reporting procedures. However, these reporting issues affect all districts of Uganda and are likely to be absorbed by the year dummies μ_t, thus reducing the risk of potential estimation bias.

A second concern is the limited availability of key variables. The Water Supply Database does not cover all Golden Indicators (for example, water quality and sanitation indicators). Furthermore, the

regressions show that the independent variables included in the regressions explain a relatively low share of within-district variation in outcomes (as measured by the R^2-coefficients in the estimation tables: usually 20-30 % as opposed to 50-70 % for Education). This suggests that the set of unobserved factors – which could potentially generate omitted variable bias - is relatively larger. Just as in the Education analysis, there are few data on contextual socioeconomic variables; but in addition, the regressions also do not include human resources or technological and economic factors that condition the adoption of water and sanitation facilities. Some of these factors (e.g. geography) do not change over time and are thus not a concern for interpreting results based on panel data estimators.

Third, there is an 'identification problem' – namely reverse causality bias - for the effects of the District Water and Sanitation Development Conditional Grant**.** The budget allocation formula of the grant (see MoWE 2008) reveals that district funding increased with the number of sub-counties that fell below the national rate of safe water coverage (and their distance to the national rate). In the data, it is hence impossible to disentangle two relationships between funding and outcomes that worked in opposite directions. While districts potentially improved their outcomes as a consequence of additional funding (funding↑ leads to outcomes↑), allocated funding increased when districts saw their outcomes declining (outcomes↓ leads to funding↑), for example due to exogenous factors not included in the regressions. The effect of interest is only the first, but the econometrics can only measure the aggregate relationship (combined effects) between funding and outcomes.

Fourth, the true effects of water sources on rural access rates cannot be empirically identified as explained in Box 7 below. In the outcome equations for rural access, water sources are hence not treated as variables of interest but only as control variables – their estimated coefficients have no causal interpretation and are hence not reported.

Box 7 Non-identification of the effects of water sources on rural access rates

In contrast to the Education data, the Water sector does not calculate access rates to service facilities (water points) from the actual number of users (people who fetch water), but based on fixed estimated numbers of people served per water source. While the Golden Indicator 'rural access' is supposed to capture the % of rural population within 1 km of an improved water source, for practical purposes the following number of users are assumed per point water source: 200 people for protected springs, 300 for deep boreholes, 300 for shallow wells and 3 (6) users for rain water tanks below (above) 10,000 litres of volume (MoWE 2010, p. 7). To avoid that the resulting total number of people served would exceed the actual district population, the MoWE introduced a cap at sub-county level at the value of 95% of the sub-county population. The nominator of the rural access rate is thus given by:

$$pop\_served_i = \Sigma_{s \in i} \max(0.95 * pop\_total_s; \Sigma_{k \in s} users_k \times n_k)$$

where pop_served_i denotes the total number of people served in rural areas of district i; pop_total_s is total rural population of sub-county s; $users_k$ stands for the fixed number of users assumed per rural water source of type k, and n_k is the number of rural water sources of type k.

This computation method implies that the *actual* effect of point water sources on rural access can econometrically not be identified for two reasons:

First, the actual users are not registered at the water sources. With fixed estimated numbers of users instead, the effect of additional water sources on the estimated rural access rate is simply mechanic, at least in areas where the capping rule is not binding. For example, one new deep borehole per 10,000 rural inhabitants in a district should simply increase the rural access rate by 3 percentage points *by assumption*[9] - whatever its actual impact is.

Second, in sub-counties where the capping rule is binding, the effect of additional water sources on rural access is zero, again *by assumption* – even if not in reality. For simplicity, consider a sub-county with only one type of water source and a binding capping rule. The effect of one new water source is:

$$\max(0.95 * pop\_total_s; users_k \times (n_k+1)) - \max(0.95 * pop\_total_s; users_k \times n_k) = 0.95 * pop\_total_s - 0.95 * pop\_total_s = 0$$

which may heavily understate the true effect.

Finally, the effects of physical Water and Sanitation resources on the two Golden Indicators 'sanitation coverage' and 'equity' are not reported either. By standard intervention logic, the mere type and number of water sources is not *expected* to causally change those outcomes. Sanitation

[9] Any econometric strategy would fail to reveal the true net effect of new water sources on rural access, both since data on the actual number of users are missing and the calculation method for the rural access rate ignores users who merely switched from another water source, unless they fall inside the capping rule. In the Education data, none of these problems occur.

coverage should not be affected by water sources (unless for chance correlation with geographic factors), and equity depends on the distribution rather than the type of water sources.

5.2.2 Construction of the dataset and descriptive statistics

In contrast to the Education sector, only one single dataset based on the district division 2006 was created. All raw data were obtained at district level and did not require aggregation from lower administrative levels or service units. None of variables used the 2013 or any constant district division throughout all fiscal years of the study period. Similar to the Education sector, the full set of Water and Sanitation variables is only available from the fiscal year 2005/06 onwards.

Data from the Water Supply Database are represented in the 2013 district division, whereas the data tables for the same variables in the Sector Performance Reports use the district division in the respective years. The approach for harmonising the unit of observation was to aggregate all districts carved out after 2006 at the level of their mother districts in 2006. Again, a dummy was added to the regressions for the years after a mother district was split (if any).

Four Golden Indicators were used as outcome variables. All of them apply only to rural areas:

- Rural access (% of rural population within 1 km of an improved water source, in practice calculated as previously explained)
- Rural functionality (% of improved water sources that are functional at time of spot-check)
- Sanitation coverage (% of rural population with access to improved sanitation/latrines)
- Equity (mean sub-county deviation from the district average in persons per water point).

Computing the variables values at the level of 2006 mother districts required one to use the rural population of the newly carved out districts as weights for all variables expressed in %. Since rural population per district was only available from a 2008 projection provided by the MoWE and the recent 2014 population census, projections for 2006-2007 (using extrapolation from 2008 backwards) and 2009-2013 (using intrapolation) were computed following the same procedure as in Box 2, with the baseline year equal to 2008, so that:

$$P_t = P_{2008} \times e^{r\,(t\text{-}2008)} \text{ for all years } 2006 \leq t \leq 2013,$$

adopting the notation introduced in Box 2 except that $r = [\ln(P_{2014}/P_{2008})]/6$, and P is rural population.

Regarding fiscal transfers from the BOOST database, the District Water and Sanitation Development Conditional Grant was created as a separate variable and all other transfers were again aggregated into one single variable. Fiscal transfers are included with one year lag in the regressions.

Finally, for the years 2010 to 2013, a dummy was created for the districts and years in which UNICEF provided support for Water and Sanitation (data from Sector Performance Reports).

The resulting descriptive statistics are summarised in Table 12. The total number of observations (466) is larger than in the corresponding Education datasets since there are fewer missing values in the variables.

Table 11 Descriptive statistics for Water and Sanitation dataset (FY 2006/07 – 2012/13)

Year of district division used for creating dataset	**Division 2006**
Number of districts as per district division	70
Number of complete observations in fiscal years 2006/07 – 2012/13	466
Golden Indicators (dependent variables)	
Share of rural population within 1 km of an improved water sources ("rural access")	0.643 (0.165)
Share of improved water sources that are functional at time of spot-check ("rural functionality")	0.832 (0.084)
Share of rural population with access to improved sanitation/latrines ("sanitation coverage")	0.671 (0.189)
Mean sub-county deviation from the district average in persons per water point ("equity")	138.1 (128.7)
Financial resources	
District Water & Sanitation Development Conditional Grant (previous year, in billion USh) [a]	0.692 (0.429)
Total of other budgeted central government transfers (previous year, in billion USh) [a]	15.99 (8.89)
Physical resources: water sources [b]	
Number of functional protected springs per 1,000 rural inhabitants	1.051 (1.459)
Number of functional deep boreholes per 1,000 rural inhabitants	0.981 (0.888)
Number of functional shallow wells per 1,000 rural inhabitants	0.552 (0.657)
Number of functional rain water tanks per 1,000 rural inhabitants	0.493 (1.073)
Number of functional valley tanks per 1,000 rural inhabitants	0.028 (0.098)
Total number of non-functional water sources in district	264.2 (409.8)
District characteristics	
Dummy for years after the split of the mother district	0.277 (0.448)
Total rural population	382,450.3 (205,329.9)

Notes:
The unit of observation is the mother district as per district division 2006. The cells display the mean values of the variables across districts and years, with standard deviations in parenthesis.

[a] Number of complete observations in regressions for sanitation coverage is smaller (400 obs.) since data not available for fiscal year 2009/10.

[b] The total number of water sources by type (whether functional or not, used as control variables in some equations) is not reported to save space.

5.2.3 Results

Box 8 and Table 12 further below summarise the econometric results for the Water and Sanitation sector. The detailed estimation table presents again outcomes in columns and variable of interest in rows. Within each vertical outcome panel, the left column includes estimates for the specification without filtering national and regional changes, and the right column those with filter, which are the preferred specifications. Comparing both specifications serves as (the only) robustness check. Statistically significant estimates in the preferred specification are marked in bold and constitute the main source of evidence. Comments on the different variables categories, calculation of standard errors and interpretation of coefficients for Education (Section 5.1.3.1) apply in analogue manner to Water and Sanitation.

Note that, for the different reasons outlined above, the only outcome equation where water sources are treated as variables of interest (rather than control variables) is rural functionality.

Box 8 Summary of econometric results for Water and Sanitation

a. There is no evidence of an effect of the District Water and Sanitation Development Conditional Grant on the selected Golden Indicators. However, this likely reflects the econometric identification problem (reverse causality) caused by the grant allocation formula, rather than indicating that the grant is actually ineffective (see discussion in Section 5.2.1).

b. Other central government transfers to districts *did* improve all outcomes except rural functionality, which suggests that districts discretionally invested at least some of these funds directly or indirectly in Water and Sanitation. The presumption that this investment was small relative to the total budget would explain why an additional 1 billion USh of general transfers increased rural access and sanitation coverage by only about 0.5 percentage points each.

c. Districts that were phased into UNICEF support for Water and Sanitation at some point between 2010 and 2013 increased their functionality rates by 3-4 pct. points on average.

d. The effect of (functional) water sources on functionality is evident. In contrast, the true effects of water sources on rural access cannot be empirically established since the actual numbers of users are not registered. Furthermore, sanitation coverage is unlikely to depend on water sources, and equity is affected by the distribution rather than the type of water points. Coefficient estimates for water points in all these outcomes have thus no causal interpretation and are not reported).

Table 12 Effects of Water and Sanitation inputs on Golden Indicators

	Main estimation method							
Dependent variable (Golden Indicator)	**Rural access [a]**		**Rural functionality [b]**		**Sanitation coverage [c]**		**Equity (inverse) [d]**	
National and regional changes filtered	No	Yes	No	Yes	No	Yes	No	Yes
Fiscal years covered in dataset	2006/07-2012/13		2006/07-2012/13		2006/07-2008/09, 2010/11-2012/13		2006/07-2012/13	
Number of observations	466		466		400		466	
Financial resources								
Central government transfers to district (in billion USh, previous fiscal year) budgeted for:								
- District Water & Sanitation Developm. Conditional Grant	0.045*	0.029	0.001	0.008	0.024	0.015	0.113	-0.021
- total of other central government transfers to district	0.003	**0.006*** **	-0.001	-0.001	0.007***	**0.004***	0.018*	**0.031****
UNICEF support to district for Water & Sanitation (dummy)	-0.013	-0.009	0.033***	**0.040*** **	-0.015	-0.018	0.049	0.054
Physical resources								
Number of water sources per 1,000 rural inhabitants of type								
Functional protected springs	Water points only included as control variables		0.028***	**0.027*** **	Water points only included as control variables		Water points only included as control variables	
Functional deep boreholes			0.045***	**0.047*** **				
Functional shallow wells			0.048***	**0.056****				
Functional rain water tanks			0.019***	**0.020*** **				
Non-functional sources (all types)			.-0.131***	**-0.129*** **				
R^2	0.132	0.180	0.544	0.572	0.231	0.296	0.188	0.247

Notes: Each cell entry under the first three outcomes shows the estimated percentage point change in the outcome induced by a one-unit change of the variable in the given row. The corresponding numbers under the fourth outcome should be interpreted by their signs and statistical significance, but not their magnitude.

*, ** and *** denote statistical significance (effect different from zero) at 10 %, 5% and 1%, respectively (marked in bold in the regressions with national and regional trends filtered).

The unit of observation is the mother district as per district division 2006. Standard errors (not reported) are clustered at the district level. Additional independent (control) variables include: number of valley tanks per 1,000 rural inhabitants, total rural population, and a dummy for the years after the split of the mother district (if any). The regressions for rural access, sanitation coverage and equity further include as control variables the number of protected springs, deep boreholes, shallow wells and rain water tanks per 1,000 rural inhabitants (whether the respective sources are functional or not).

[a] Share of rural population within 1 km of an improved water source (in practice calculated by assuming a fixed number of users per water source, see MoWE 2010)

[b] Share of improved water sources that are functional at time of spot-check

[c] Share of rural population with access to improved sanitation (latrines)

[d] The Golden Indicator 'Equity' is measured by the mean sub-county deviation from the district average in persons per water point, which actually decreases with a more equal distribution of sub-county values around the district average. The dependent variable used here is 100 divided by that number and hence increases with improvements in the indicator, just as the other outcome indicators do.

6 References

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Annex 7: Field survey report

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1 Introduction

1.1 General focus and setup of the survey

1.1.1 Purpose and sector focus

The field survey collected data from local (indirect) beneficiaries of budget support for three key purposes. First, to provide a picture of the institutional setting and resource situation in which financial planners and providers of public services operate – factors that are directly or indirectly addressed by budget support. Second, to reveal challenges in planning and service provision that have affected the way how potential benefits of budget support may have triggered down to the local level. Third, to identify determinants of service and development outcomes.

Financial planning and service provision was studied in different administrative units and sectors. The questionnaires and interviews covered the local government administration at district and sub-county levels, as well as a large number of service providers (but not their end users). The survey focused on the sectors of education and health, including some questions on Water and Sanitation as well. Service providers in the two focal sectors included public primary and secondary schools, as well as public health units at levels II (parish level) and III (sub-county level).

The original proposal for the survey aimed to collect data from schools and health facilities in two or three districts. It was later decided to (i) expand geographic coverage to eight districts, (ii) broaden the thematic scope to adequately cover institutional aspects of service provision and (iii) include local government administration for both quantitative and qualitative data collection in the survey. The sizes of the service provider samples were consequently reduced to accommodate the widened geographic, thematic and institutional coverage with the available resources.

1.1.2 Thematic focus

In line with the general objectives of the survey, the quantitative and qualitative data collection instruments covered the following thematic areas:

1) Policy and development challenges
2) Financial planning and funding
3) Interaction with public administration at higher levels and administrative capacity
4) Policy changes including decentralisation
5) Development and service provision outcomes
6) Physical resources including water and sanitation
7) Human resources including technical capacity
8) Role of service unit management committees and service staff
9) Gender issues in budgeting, service delivery and development outcomes
10) Challenges in post-conflict areas.

1.1.3 Institutional arrangements

The external evaluation team contracted by the European Commission was in charge of managing the survey, developing its general setup and designing all survey instruments. The IEG, EC and sector experts of the evaluation team contributed with thematic advice. Survey specialists of the World Bank provided additional technical expertise. For the implementation of the field survey, the evaluation team commissioned a partner organisation based in Kampala, the Uganda office of the international NGO BRAC. The internal Research and Evaluation Unit of BRAC Uganda, with support of BRAC local offices in the survey districts, led the organisation and implementation of the survey. Its main responsibilities included:

- contracting of local enumerators and interviewers in the survey districts
- provision of one week of enumerator and interviewer training in the organisation's country office
- comments on the setup of the survey and the survey instruments
- programming of electronic versions of the questionnaires for data collection via mobile phones
- liaison with local stakeholders for obtaining authorisations and logistic preparation
- collection of all quantitative data and conducting semi-structured interviews in the field
- monitoring of data quality
- preparation and delivery of the final datasets and interview notes.

1.2 Sampling strategy

The selection and sampling took places in three different stages as shown in Table 1.

Table 1: Sampling approach for field survey

Administrative unit	Sampling/selection strategy	Number of selected units	Described in
District	Manual selection based on proposed criteria	8 districts	Section 0
Sub-county (primary sampling unit)	Random sampling of sub-counties (used as clusters) within selected districts	43 sub-counties	Section 1.2.2
Service provider (secondary sampling unit)	Single-stage cluster sampling: all health units of level III and secondary schools in sampled sub-counties Two-stage cluster sampling: random sampling of health units of level II and primary schools in sampled sub-counties	80 health units, 136 schools	Section 1.2.3

The sampling strategies had to address two different challenges in the survey design: sample selection bias and statistical uncertainty in survey responses.

Absence of sampling selection bias aims to achieve that selected units are 'representative', that is *on average* similar to the totality of units. The actual sample selection bias is small for sub-counties and service units *within* districts since they were randomly sampled or universally covered. However, *the selection of districts is not meant to be representative* at country/local level, but rather to reflect the *diversity of local service delivery contexts* in Uganda.

Even without formal selection bias, a sample with too few units may yield - by random chance - variable values that are different from those for the totality of units. The required sample size for not exceeding a given level of uncertainty can be computed via statistical power analysis. In this survey, power analysis served as rough guidance only for service providers (health units and schools), for which the selected sample sizes are consistent with an approximate error margin of 5% to the responses and a confidence level of 90%[1]. In contrast, the sample sizes for districts and sub-counties levels were largely determined by logistic and resource constraints.

1.2.1 Districts

While the ToR of the evaluation initially foresaw that the survey would be conducted in "*two to three distinct districts*" in Uganda, the actual geographic coverage was expanded to *eight districts (two districts from each region)*. The selected districts are:

- Central Region: Buikwe, Mpigi
- Eastern Region Jinja, Kaliro
- Northern Region: Lira, Zombo
- Western Region: Kiryandongo, Rukungiri.

The selection procedure for districts followed three steps.

1. In light of logistical and resource constraints, the initial list of 112 districts in Uganda was reduced to districts that (i) host a BRAC office (around 70% of all districts) and (ii) are divided into not more than 15 sub-counties (around 80% of all districts), thereby limiting the number of units to be sampled in the next stages.

From the remaining districts, eight were selected to illustrate the variety of local contexts along the following criteria:

a. Overall economic and social conditions;
b. Health service availability/accessibility;
c. Access to education;
d. Administrative history (newly created districts vs. older ones);
e. Rural-urban balance and coverage of post-conflict areas.

The selection was done by applying numerical indicators for criteria (a) to (c) to the reduced list of districts. This yielded a preliminary selection, which was definitely confirmed after verifying that criteria (d) and (e) were adequately covered as well.

2. The following indicators were chosen to reflect criteria (a) to (c), each using the most recent data available online at the inception of the evaluation:

[1] For example, 136 out of the total of 422 schools in the selected sub-counties were actually sampled for the survey. Suppose that, for a specific 'yes-no' question, the *true* share of 'yes' responses for all 422 schools would be 50%. If one drew ten different samples of 136 schools, the shares of 'yes' responses *observed* in the data would fall approximately between 45 and 55 % (error margin 5%) in nine out of the ten samples (confidence level 90 %).

a. Percent of population below the poverty line in 2005, a summary measure to capture economic and social conditions, published by the Uganda Bureau of Statistics;

b. Total score for health sector performance in the District League Table for 2012/13, a summary measure for different indicators of health service availability and accessibility published by the Ministry of Health;

c. Total gross enrolment ratio at primary level in 2011, a measure of access to education, published by the Ministry of Education and Sports.

Using criteria (a) to (c), two districts were selected from each region:

- One 'representative' district, with indicators (a) to (c) close to their regional averages – usually only one candidate district per region and hence an evident choice ;
- One unusually poor or rich district in terms of (a) to (c) relative to their regional averages – again usually only one that that clearly performs better/worse than average in *all* district indicators.

3. The final step consisted in verifying that the final sample included:
   - At least two of the 21 municipalities in Uganda to ensure rural-urban balance ;
   - At least one district from post-conflict areas in the North (in lieu of a poor district);
   - At least one new district created after 2005.

Table 2: Selection of districts for field survey

Region	District	No. of sub-counties	(a) Poverty rate 2005	(b) Health service score 2012/13	(c) Primary GER 2011	(d) Incl. municipality?	(e) New district after 2005?	Performance relative to regional means of indicators; post-conflict area
			Pct. point difference to regional rate	Difference to regional mean	Pct. point difference to regional rate			
Central	Buikwe	12	-2,78	1,84	*-9,39*		Yes	Average
Central	Mpigi	7	*2,95*	*-17,36*	*-59,79*		Yes	Low
Eastern	Jinja	12	-17,74	13,51	*-45,51*	Yes		High[2]
Eastern	Kaliro	6	*2,86*	*-6,69*	*-17,71*		Yes	Average
Northern	Lira	13	-6,91	13,32	8,49	Yes		Post-conflict
Northern	Zombo	10	*2,05*	3,72	5,99		Yes	Average[3]
Western	Kiryandongo	7	*7,79*	*-14,84*	*-27,99*		Yes	Low
Western	Rukungiri	12	-6,49	5,06	8,21	Yes		Average

Notes: numbers in italic = performed worse than regional average

While the districts selected in the second step were inevitably not fully representative at the national level, at least the first step (imposing logistic constraints) did not seem to exacerbate sample selection bias. Table 3 below shows that the set of all BRAC districts (whether limited to those with at most 15 sub-counties or not) are not systematically different from the national averages in the key criteria (a) to (c).

Table 3: Comparison full versus reduced selection framework for districts

	Percentage of population below poverty line	District health performance score	Primary gross enrolment ratio
Average, national	41.94	61.35	118.80
Average across BRAC districts	41.97	62.64	114.51
Average across BRAC districts with ≤15 sub-counties	44.83	61.77	116.57

1.2.2 Sub-counties

Below the district level, administrative units were randomly selected through cluster sampling. Sub-counties constitute the 'primary sampling units' of this cluster sampling approach. That is, they were randomly sampled (with different sampling shares for different data collection instruments), followed by further sampling of service providers ('secondary sampling units', see Section 1.2.3 below).

[2] Except for school enrolment.
[3] Even though Zombo was less affected by conflict than Lira, the modules for post-conflict areas were applied as well.

The sampling framework for sub-counties included all 79 sub-counties located in the eight selected districts, as per administrative division 2014 (available from Uganda Bureau of Statistics and other sources).

Three different sampling shares for sub-counties were chosen to yield expected target numbers of completed data collection instruments, specifically for:

(i) Secondary schools and health units of level III, of which there are only a limited number per district (implied sampling share: 50% of all sub-counties in each district)
(ii) Sub-county authorities covered through quantitative questionnaires (sampling share 40%)[4]
(iii) Sub-county authorities covered through qualitative interviews (sampling share 20%).

These sampling shares were applied within each district. The first sub-county sample was randomly drawn to obtain half of the sub-counties in each district (43 in total). For practical matters, the other two were designed to be sub-samples of the first. Specifically, set (ii) was constructed as an 80% sub-sample (35 sub-counties) of sample (i) in each district, and set (iii) was obtained by sampling one half of the sample (ii) in each district (19 sub-counties).

1.2.3 Service providers

The cluster sampling approach continued at service provider level. Schools and health units were random sampled or universally covered (depending on their type) within the previously sampled sub-counties. Both random sampling and universal coverage minimised selection bias that could have arisen, for example, from selecting service units based on accessibility by road.

Sampling frameworks:

In contrast to districts and sub-counties, the sampling frameworks for service units – the complete lists of public schools and health facilities in the widest sub-county sample - were not publically available, but had to be obtained from the education and health administration.

The full list of primary and secondary schools in Uganda was extracted by the Ministry of Education and Sports from the Education Management Information System (EMIS) and provided to the evaluation team. In contrast, the lists of public health units were collected by field staff of BRAC from each individual District Health Office. As a consequence, field work for health units started later than for schools. Note that the lists of schools excluded those founded after 2009 to minimise the risk of non-responses to retrospective questions. It was not possible to impose the same restriction on health units since the variable founding year was not available in those lists.

Sampling by service provider category:

The survey proposal (i) specified target numbers for completed school and health unit questionnaires (also in line with rough statistical power analysis) and (ii) aimed to ensure a sufficient coverage of 'higher-level' service providers – secondary schools and health units of level III.

Given their limited number, point (ii) was achieved by selecting *all* secondary schools and health units of level III located in the selected sub-counties ('single-stage cluster sampling'). Subsequently, sufficient numbers 'lower-level' providers - primary schools and level-II health centres - were randomly selected ('two-stage cluster sampling') to arrive at the target sample sizes specified under aspect (i).

Given these target numbers, the sampling procedure finally selected 100 of all 422 primary schools (24 %) and 46 of all 74 health units of level II (62 %) in the corresponding sampling frameworks[5]. The successive calculations and sub-samples for the different service provider types are given in the table below (Table 4). Within service provider categories of this table (health units and schools), the sequence of sampling and calculations is top-down and, within rows, from left to right.

[4] Initially, it was foreseen to not distinguish between sub-county samples (i) and (ii) so that all service units could in principle have been matched with their sub-county administrations. It later turned that this would have resulted in too few secondary schools and health units of level III, which led to the decision of slightly increasing sample (i).

[5] These two service provider types were oversampled by about 10% to guard against potential cases of unsuccessful contacts, which eventually resulted in a slightly higher number of completed health questionnaires than actually targeted.

Table 4: Sampling approach for service providers

	Health units				Schools			
	Target sample →	80 [a]			136 [b]			Target ← sample
Cluster sampling strategy	**Health unit level**	Units in sampling framework	Sample	Implied sampling share	Schools in sampling framework	Sample	Implied sampling share	**School level**
Single-stage	**III**	34	34	100%	36	36	100%	**Primary**
Two-stage	**II**	74	46	62%	422	100	24%	**Secondary**

[a] Based on intended sample of 5 health units of levels II and III each per district on average.
[b] Based on intended sample of 12 primary schools and 5 secondary schools per district on average.

1.3 Respondents, data collection tools and procedures

Data for the survey were collected through standardised questionnaires (main instruments) and semi-structured interviews. Table 5 further below summarise the respondent categories, data collection instruments, sampling strategies and number of completed instruments.

1.3.1 Quantitative data

1.3.1.1 Respondents and instruments (standardised questionnaires)

The survey used three different types of questionnaires:

1. 'Type A' short questionnaire for local government administration at district and sub-county levels.
   Survey data were collected from seven different respondent categories in the local government administration – essentially the key officers in charge of budget planning and execution, or service planning and supervision. These include, at the district level: the Chief Administrative Officer, District Education Officer, District Inspector of Schools, District Health Officer, District Health Inspector; as well as education and health experts at sub-county level.
   Type A questionnaire was administered to the same respondents who also participated in semi-structured interviews (enumerators and interviewers usually started with the questionnaire before conducting the interview), with two exceptions. First, the questionnaire was not applied to the Chief Administrative Officers, who lead the administrative hierarchy of the districts and were hence only available for meetings of short duration. Second, the questionnaires were applied to twice as many sub-county officials (sub-county sample (ii)) as the semi-structured interviews (sub-county sample (iii)), given that the latter were relatively time-intense but did not require any specific sample size for statistical data analysis.

2. 'Type B' questionnaire for health facilities of level II and III.
   In Uganda, there is approximately one health facility of level II in every parish and one facility of level III in every sub-county. Units of level II are mostly staffed with nurses (and led by a nurse) plus nursing assistants. They are equipped with an outpatient clinic, but rarely have a laboratory. Units of level III, in contrast, have an average staff of 15-20 persons, including doctors, nurses, assistants and a few specialists, and are led by a clinical officer. They are equipped with an outpatient clinic and a laboratory. Levels I (village level) and IV (district level) did form part of the survey[6]. Questionnaire Type B was used in two different versions: a full version for health facilities of level III and a shortened version for level II, in which some of the questions (e.g. on maternity wards and certain staff categories) were skipped.
   The questionnaire was divided into three different modules that applied to different respondents: a main module for the In-Charge (administrative head) of the health unit, plus two short modules for the Chairman and the Staff Representative of the Health Unit Management Committee.

3. 'Type C' questionnaire for primary and secondary schools.
   Except for very few questions, the questionnaire was the same for primary and secondary schools. The main difference between the two lied in the detailed formulation of questions related to funding and collaboration with higher-level administration since secondary schools are directly funded by the national government, whereas primary schools interact to a larger extent with local governments.

[6] Level I largely includes individual volunteers – such as community medicine distributors or members of Village Health Teams – not even covered in the Health Management Information System. Level IV includes too few units in the eight districts to provide a meaningful picture for health services at that level.

Type C questionnaire was also composed of three different modules, each for a specific respondent category: a main module for the Head Teacher of the school and two short modules for the Chairman and Teacher Representative of the School Management Committee.

1.3.1.2 Procedure

Quantitative data were collected electronically. The evaluation team provided BRAC with paper versions of the questionnaires based on which BRAC programmed electronic versions with desired skip logics. The electronic questionnaires were installed on mobile devices in which the enumerators entered respondents' answers directly. All paper and electronic questionnaires were carefully reviewed and adjusted during the enumerator training. The electronic versions were pre-tested in the field – mainly around Kampala, as well as in Jinja and Lira districts – and adjusted several times before the final versions were adopted.

Enumerators continuously uploaded the collected data to the web-based secured platform ODK Open Data Kit. BRAC provided the evaluation team with regular ODK raw extracts. The evaluation team reviewed their quality and performed internal consistency checks. In a few cases, this led BRAC to contact field supervisors to increased monitor of individual survey staff. Unsuccessful contacts of respondents were rare and almost exclusively solved through the oversampling margin (see Section 1.2.3) and by extending the field period.

Table 5: Types and numbers of respondents and data collection instruments

Respondents (organisation)	*Number and type of respondents (individuals)*	*Data collection instruments*	*Intended coverage for all 8 districts and sampling strategies*	*Total number of instruments (planned)*	*Total number of instruments (actual)*
District administration	5 respondents: • Chief Administrative Officer • District Education Officer • District School Inspector • District Health Officer • District Health Inspector	**Type A** short questionnaire → Semi-structured interviews →	All 5 district officers (except Chief Administr. Officer) in 8 districts (*32 officers*) All 5 district officers in 8 districts (*40 officers*)	78 interviews 102 local gov't questionnaires	73 interviews 98 local gov't questionnaires
Sub-county administration	2 respondents: • Education expert • Health expert	**Type A** short questionnaire → Semi-structured interviews →	2 officers each in 40% of the sub-counties per district (35 sub-counties → *70 officers*) 2 officers each in 20% of the sub-counties per district (19 sub-counties → *38 officers*)		
Health centres level II & III	3 respondents: • In-charge • Chairman HUMC • Staff representative HUMC	**Type B** questionnaire • Module I: In-charge • Module II: Chairman HMUC • Module III: Staff Representative HMUC	Level III: All health units in half of the sub-counties (*34 health units*) Level II: 62 % of all health units in half of the sub-counties (*46 health units*)	80 health unit questionnaires	86 health units questionnaires
Primary and secondary schools	3 respondents: • Head teacher / principal • Chairman SMC • Teacher representative SMC	**Type C** questionnaire • Module I: Head Teacher • Module II: Chairman SMC • Module III: Teacher Representative SMS	Secondary level: All schools in half of the sub-counties (*36 schools*) Primary level: 24% of all schools in half of the subcounties (*100 schools*)	136 school questionnaires	136 school questionnaires

Notes: HUMC = Health Unit Management Committee. SMC = School Management Committee.

1.3.2 Qualitative data

1.3.2.1 Respondents and instruments (semi-structured interviews)

Semi-structured interviews were conducted at the local government level (district and sub-county officers), if possible in a double session after completion of the Type A questionnaire with the same respondent. The interviews included all district-level officers in the five categories listed further above, as well as the health and education experts in sub-county sample (iii).

1.3.2.2 Procedure

The evaluation team developed the interviews templates, which were discussed and revised during the enumerators before being tested with a handful of full respondents in the field (and again revised). During the training, additional guidelines and hints for correctly interpreting and contextualising the questions were added for the interviewers.

Almost all interviews were conducted in English. Voice recording was only used for some respondents, but mostly done using paper notes. These notes were subsequently transcribed into electronic format by the interviewers themselves. BRAC researchers reviewed the quality of the electronic notes and provided a first summary and pre-analysis of them.

1.4 Timeline

The following table summarises the timeline of the field survey.

Table 6: Timeline of key survey activities in 2014

Week →		*27-31 Oct*	*03-07 Nov*	*10-14 Nov*	*17-21 Nov*	*24-28 Nov*	*01-05 Dec*	*08-12 Dec*
Activity	**Instrument(s)**	**Duration (cells shaded in grey)**						
Training (BRAC country office)	All							
Testing of instruments (field)	Qn. Type A							
	Qn. Type B							
	Qn. Type C							
	Interviews							
Final data collection (field)	Qn. Type A							
	Qn. Type B							
	Qn. Type C							
	Interviews							

1.5 Limitations of the survey

1.5.1 Difficulty of capturing evolutions over time

In any single-round survey that only collects ex-post data (here: after the end of the evaluation period 2004-2013), it is inherently difficult to reliably trace trends in key variables over time. A partial baseline can possibly be recovered from secondary sources, provided that those sources contain at least the key outcomes and determinants for the same units in earlier periods. For the current survey, however, no comparable baseline data exist[7].

1.5.2 Staff turnover

As a workaround for missing baseline data, the survey included several retrospective questions and directly asked about the underlying reasons of specific changes. However, even these strategies were severely limited by the fact that many key respondents had not been in office for a sufficiently long time. For example, about *two thirds* of the local government respondents took their current position only in 2010 or later. The ability of the survey to capture data from before 2010 is hence limited.

1.5.3 Selection of districts

The selected districts provide an adequate balance of the variety of local contexts, but are not nationally representative in a strict statistical sense.

[7] For example, the Educational Management Information System collects data on education resources and outcomes from every school in Uganda, but not on the financial management of schools, their collaboration with local governments, the institutional environment, etc. – variables that play a major role in the field survey.

1.5.4 Response bias

The informative value of answers depends on the respondents' cognitive interpretation of questions, as well as their ability and willingness of provide correct data and statements[8]. For some variables (facts), the response bias can be gauged by plausibility and internal consistency checks, or by comparison against existing Management Information Systems and other secondary data. However, there are no objective benchmarks for subjective assessments ("How would you rate…?"). A few attempts were made to minimise response bias in this survey:

- Adding the option 'Do not know' in order to not force respondents to provide inaccurate answers. This option was actually not much selected by the respondents;
- Asking certain questions (in the same or a slightly modified phrasing) to different type of respondents, so that their answers can be compared;
- Building on the local expertise of the partner organisation in Uganda for inclusion and formulation of potentially sensitive questions.

The fieldwork also revealed that some respondents had difficulties with correctly answering a few specific questions, even if rephrased differently. For example, In-charges and Head Teachers sometimes failed to distinguish between the process of gender budgeting itself and *instructions* on gender budgeting. Some respondents were also unable to make a clear causal link between changes and outcomes and potential determinants (e.g. policy changes), rather than merely identifying changes. These data should hence be interpreted with caution.

[8] The fact that, in the qualitative interviews, voice recording was used only in some cases and in part declined by the interviewees indicates the sensitivity of some survey questions, mainly at local government level.

2 Analysis of responses from the local administration (Type A)

2.1 Overall key findings

- The broad majority of surveyed LG officers stated that the per capita funding of their administrative unit has increased over the last 5-10 years.
- Most transfers from national/district governments are allocated with conditions and delays in the receipt of funds are an important problem.
- Most respondents agree that decentralisation of budgeting and planning has made a positive impact on many areas of the budget process, especially financial and operational planning and the participation of local stakeholders.

2.2 Financial planning and interactions with national/district authorities

Planning

Question: Does your local government (the district or sub-county you work for) prepare regular financial statements?If 'Yes', how often are financial statements prepared?
Almost all (99 percent) of the interviewees said their LG would prepare regular financial statements. 37% prepared annual statements, 60% quarterly statements, 3% both and 1% none.

Question: Does your local government (the district or sub-county you work for) prepare budget execution reports? If 'Yes', how often?
97% stated their LG prepared budget execution reports, the majority on a quarterly basis (80 %, annually 10% and monthly 8%)

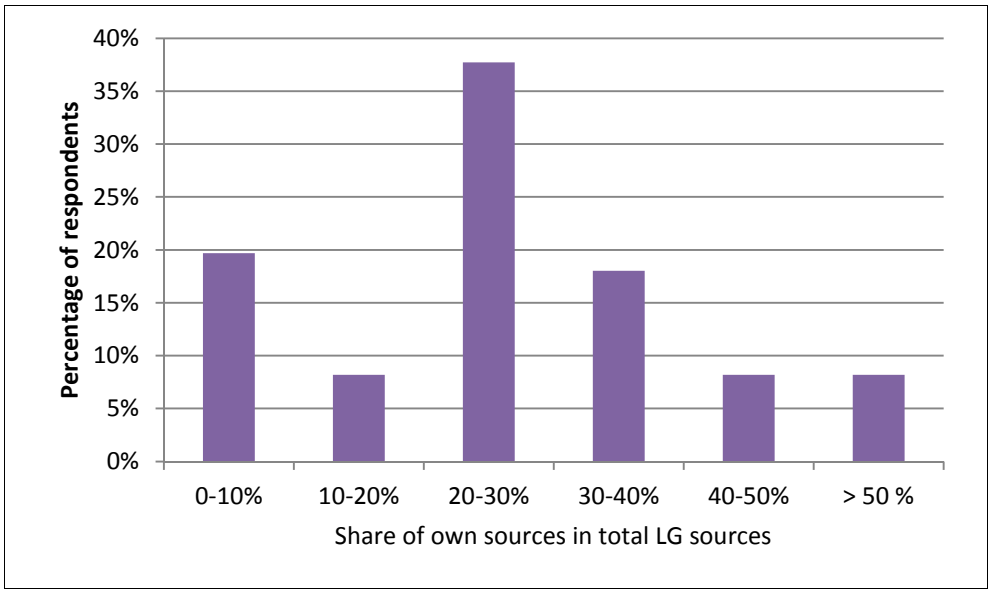
Question: Does your local government use Integrated Financial Management Information System (IFMIS) for all budgetary preparation, monitoring, and execution? Please select only one option.
57% state that their LG uses IFMIS for all or a large extent of budgetary preparation, monitoring and execution, while 40% state that IFMIS is used only to a small extent or not at all (3% 'does not know')

Question: Has your local government been audited by an external (not only internal) auditor in the last 3 years? If 'Yes', in which year was the last audit?
96% of respondents state their LG has been audited by an external auditor in the last three years (58% in 2014, 28% in 2013 and 1% in 2012)

Revenue

Question: In the fiscal year 2013/14, what % share of total revenues of your local government was from own local sources (in contrast to transfers from national or district government)?

Figure 1 Share of total LG revenues from local sources



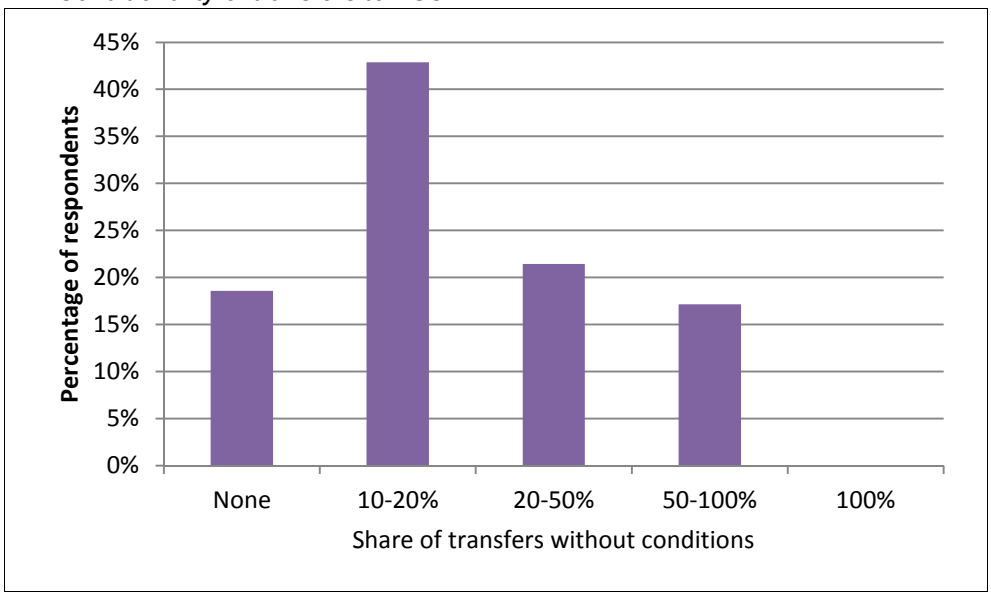
2/3 of the respondents state that the share of own sources in LG revenue is 30% or below.

Question: In the past 5 years, has this share of local revenue sources increased or decreased?

57% of respondents state that the share of local revenue sources has increased in the last 5 years, 13% state it has stayed the same and 13% state it has decreased (18% 'does not know')

Question: In the fiscal year 2013/14, how much of transfers from national/district government(s) were allocated to your local government without any conditions?

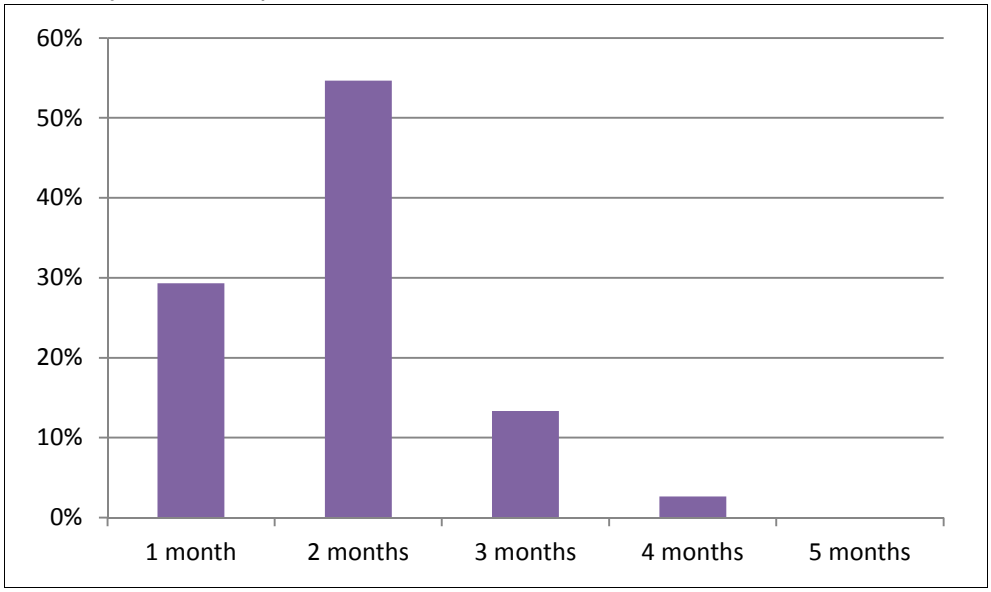
Figure 2 Conditionality of transfers to LGs



Most transfers from national/district governments are allocated with conditions.

Question: If there is a delay in the receipt of the budget funds, how many months is a typical delay?

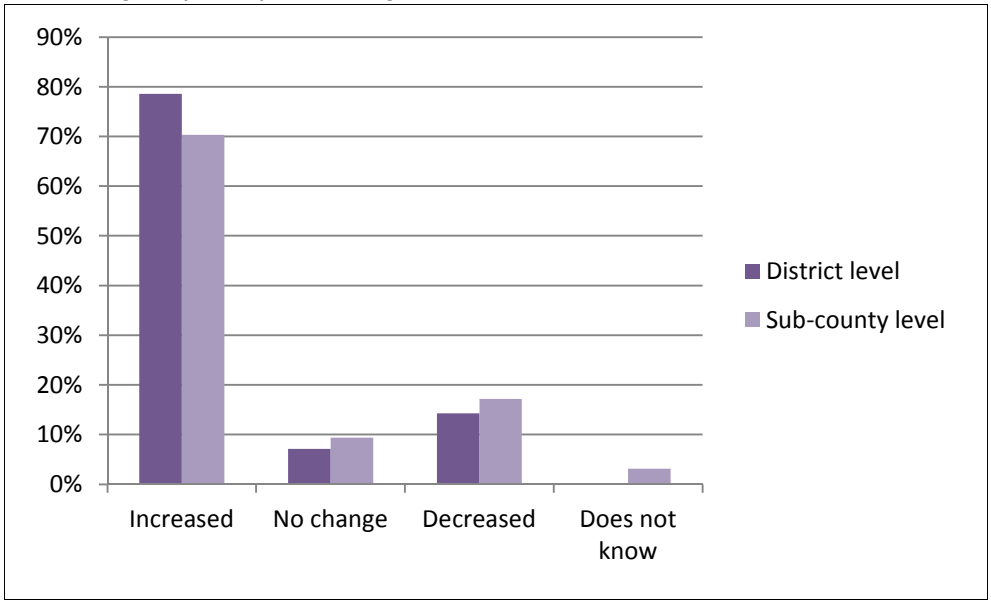
Figure 3 Delay in the receipt of funds



Most LGs experience a 1-3 months delay in the receipt of funds

Question: Has your administrative unit experienced a change in per-capita funding in the last 5-10 years (or the year you joined this office)?

Figure 4 Change in per-capita funding



The broad majority of surveyed LG officers stated that the per capita funding of their administrative unit has increased over the last 5-10 years.

Training

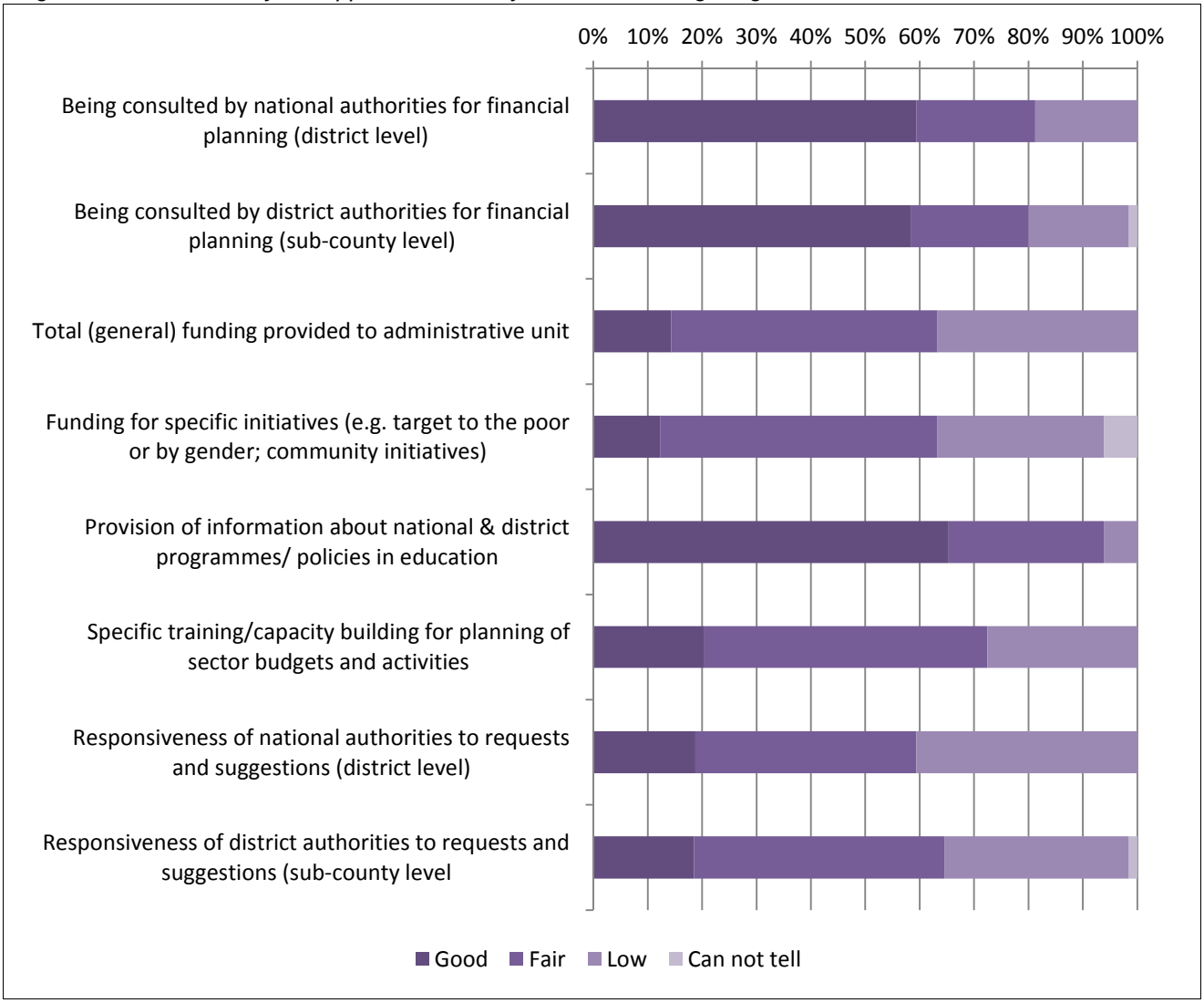
Question: Does your Unit organise training sessions/workshops for in-charges/head teachers?

59% of the respondents state that their unit organizes training sessions or workshops for in-charges (health units) and health teachers (schools) respectively.

Support by higher government levels

Question: How would you rate the following types of support received by authorities at higher government levels in the last 5 years (or since you joined this administrative unit) in order for you to be able to undertake key functions of your office?

Figure 5 Quality of support received by authorities at higher government levels

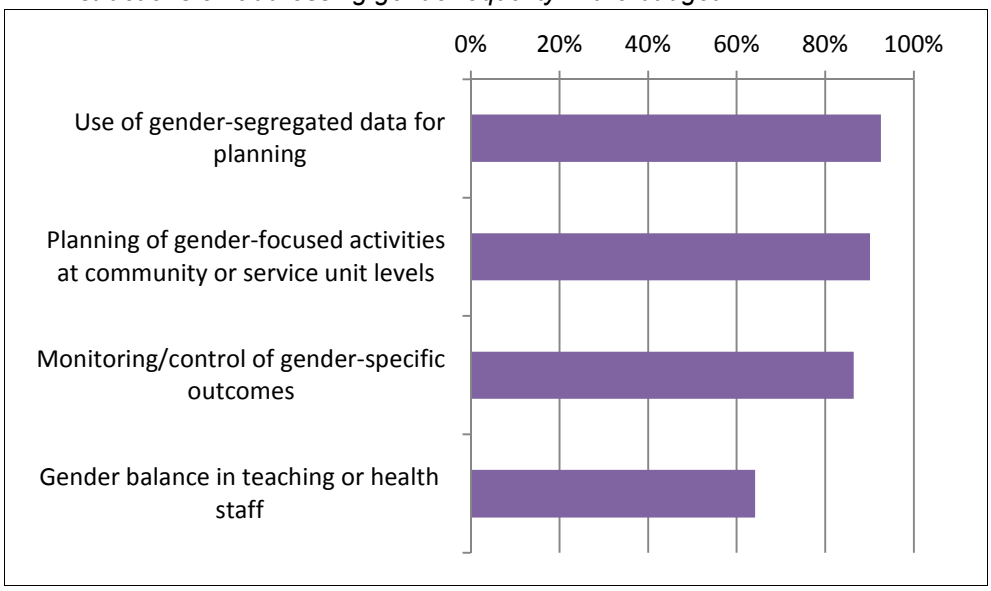


On the positive side, respondents state that they have been consulted for financial planning and provided with information on national and district programmes in education. Aspects that were rated moderately include general funding and funding for specific initiatives; training in sector budgeting and responsiveness to requests and suggestions.

2.3 Gender budgeting

Question: During the budget preparation, are you given any of the following instructions by national or local authorities to specifically address gender equity?

Figure 6 Instructions on addressing gender equality in the budget

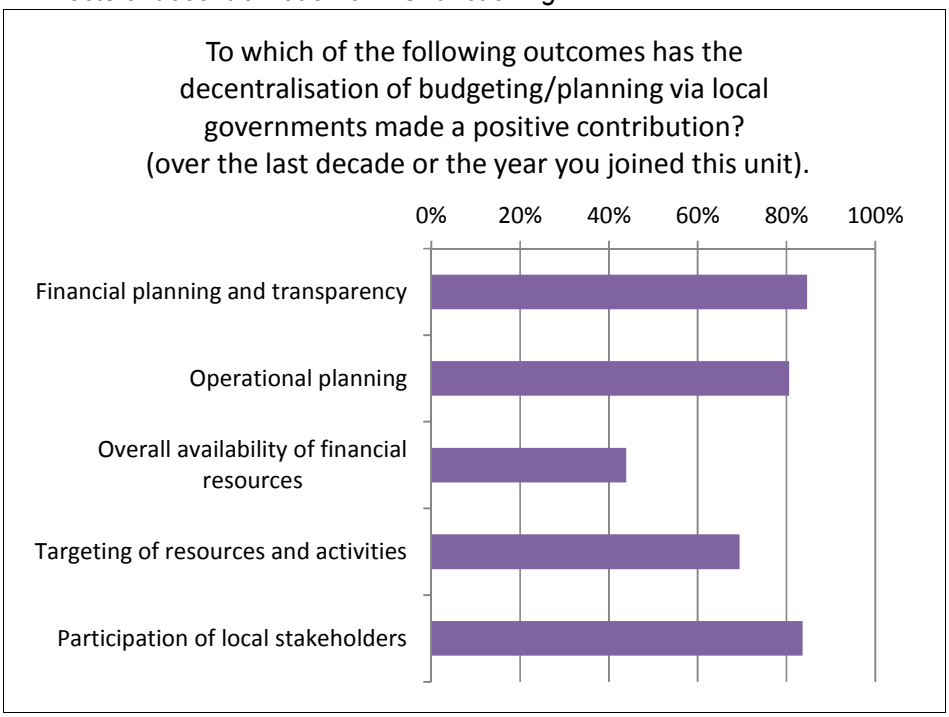


A great share of the respondents state they have received instructions on how to use gender segregated data for planning, how to plan gender-focused activities at community or service unit levels and how to monitor gender-specific outcomes. 64% of respondents state they have received instructions on how to address gender balance in their staff.

2.4 Policy changes

Question: To which of the following outcomes has the decentralisation of budgeting/planning via local governments made a positive contribution? (over the last decade or the year you joined this unit).

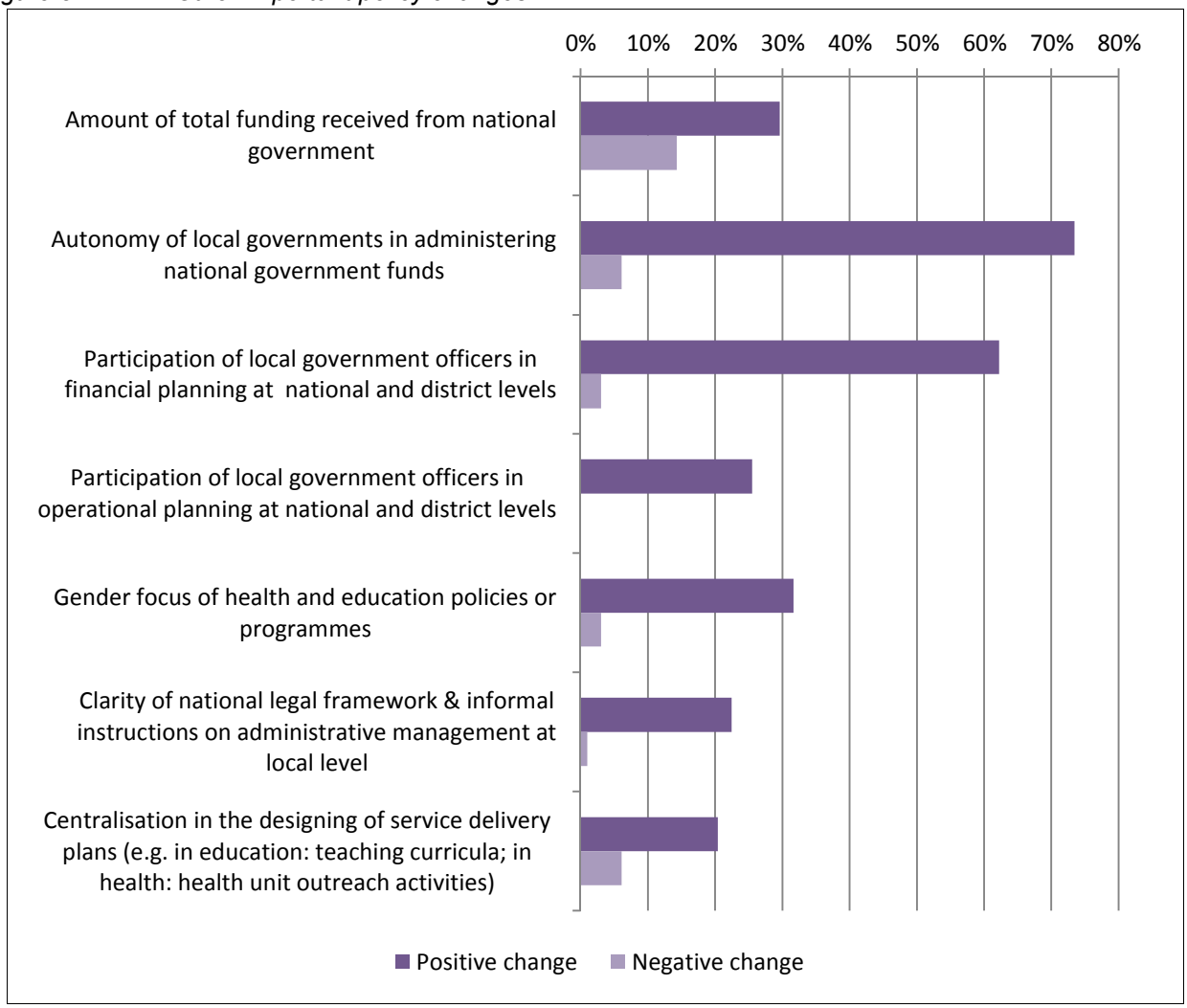
Figure 7 Effects of decentralization on LG functioning



Most respondents agree that decentralisation of budgeting and planning has made a positive impact on many areas of the budget process. However, only 44% agree that it led to a higher availability of resources.

Question: Please indicate up to 3 changes that you consider as most important in your sector in the last years (excl. decentralisation). Please indicate whether this change was an increase or decrease.

Figure 8 Other important policy changes



In terms of other policy changes, the autonomy of LGs in administering national government funds and the participation of LG officers in financial planning at national and district levels were most cited.

3 Analysis of responses from the health units (Type B)

3.1 Overall key findings

- HR very problematic, most health units are understaffed and midwives are especially hard to find. Timeliness of staff allocation is also a problem
- Physical resources are mostly rated insufficient. Medical supply as notable exception, strong improvements in the last 10 years.
- Predictability and stability of funding of the health units is low.

3.2 Health and Development Outcomes incl. Access to Health

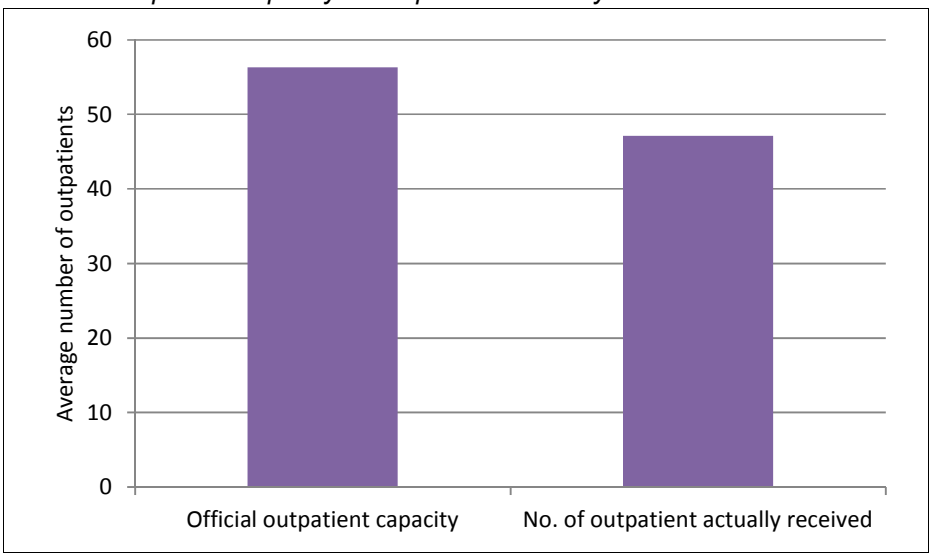
Question: Please provide the estimated population size in the official catchment area of this health unit (2014 or most recent number)

Table 7 Average population in official catchment area

Population group	Average population size
Male	5,573
Female	7,417
Females aged 15-45 years	3,815
Girls under 5 years	1,423
Boys under 5 years	1,147
Total population	**12,989**

Questions:
What is the officially intended outpatient capacity of this unit (number of outpatients per day)?
How many outpatients does this unit actually receive per day on average?

Figure 9 Official outpatient capacity vs outpatients actually received

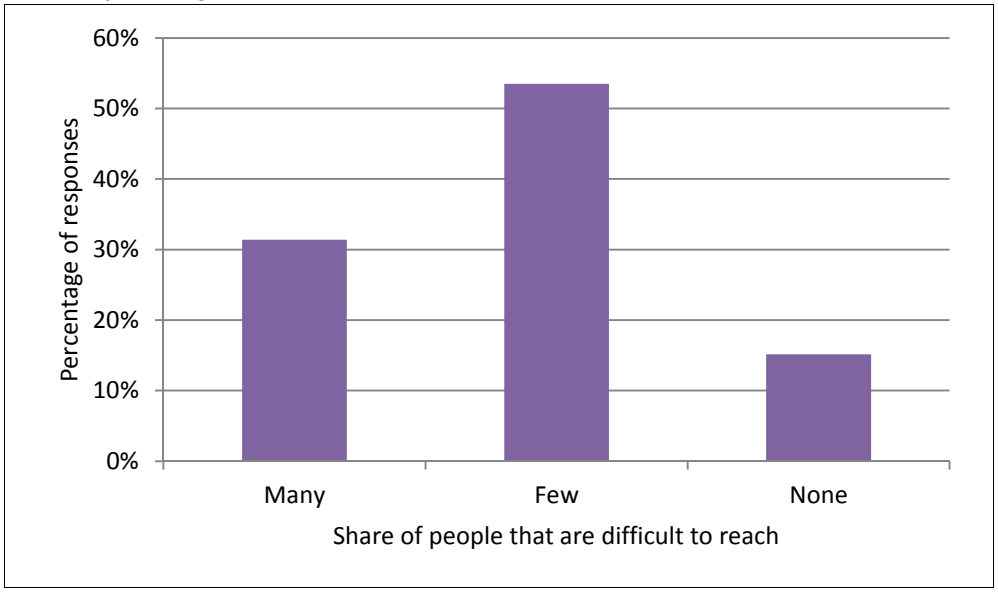


The average official daily outpatient capacity (56) exceeds average actual outpatient capacity (47).

Question: Is this unit receiving more or less outpatients today compared to 5 years ago (or the year you started working in this unit)?
81 % of the respondents state that their health unit is receiving more outpatients today than 5 years ago (No change: 7%, less outpatients: 12%).

Question: How many people in your catchment area are difficult to reach with your health services?

Figure 10 People living in hard to reach areas



84% of the respondents indicate that 'many' or 'few' people living in the health unit's catchment area are difficult to reach. 44% of these offer mobile health services to cater to the needs of hard-to-reach patients.

Questions:

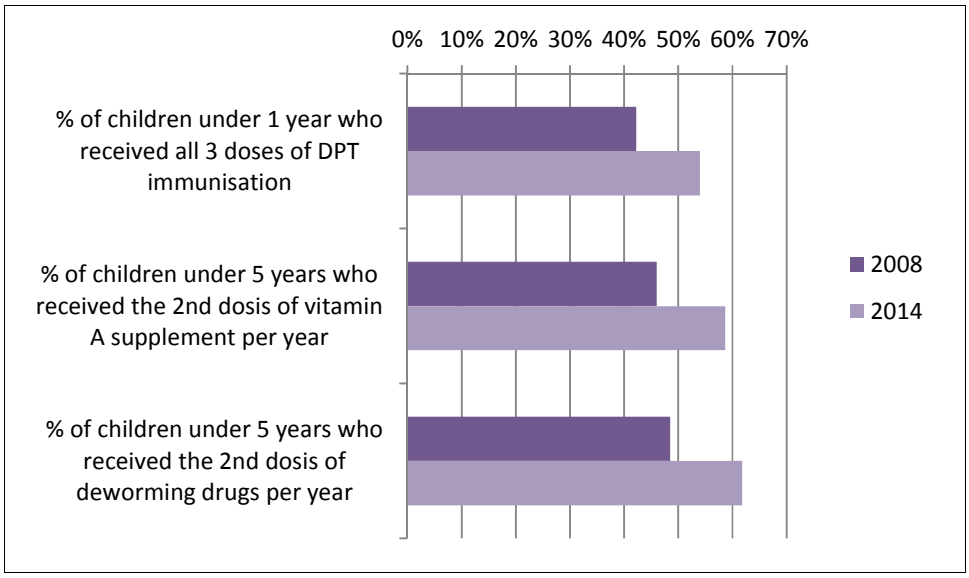
Does your unit charge user fees for drugs?

Does your health unit provide immunisation services?

Most respondents indicate that their unit does not charge user fees for drugs (94%) and that it provides immunization services (93%).

Question: For 2008 (or the year you joined this unit) and 2014, please estimate the % of children under 1 year in the catchment area of this health unit who received (i) all 3 doses of DPT immunisation; (ii)the 2nd scheduled dosis of vitamin A supplementation per year; (iii) the 2nd scheduled dosis of deworming drugs per year.

Figure 11 Estimation of child health indicators in the catchment area of the respective health unit for 2008 and 2014

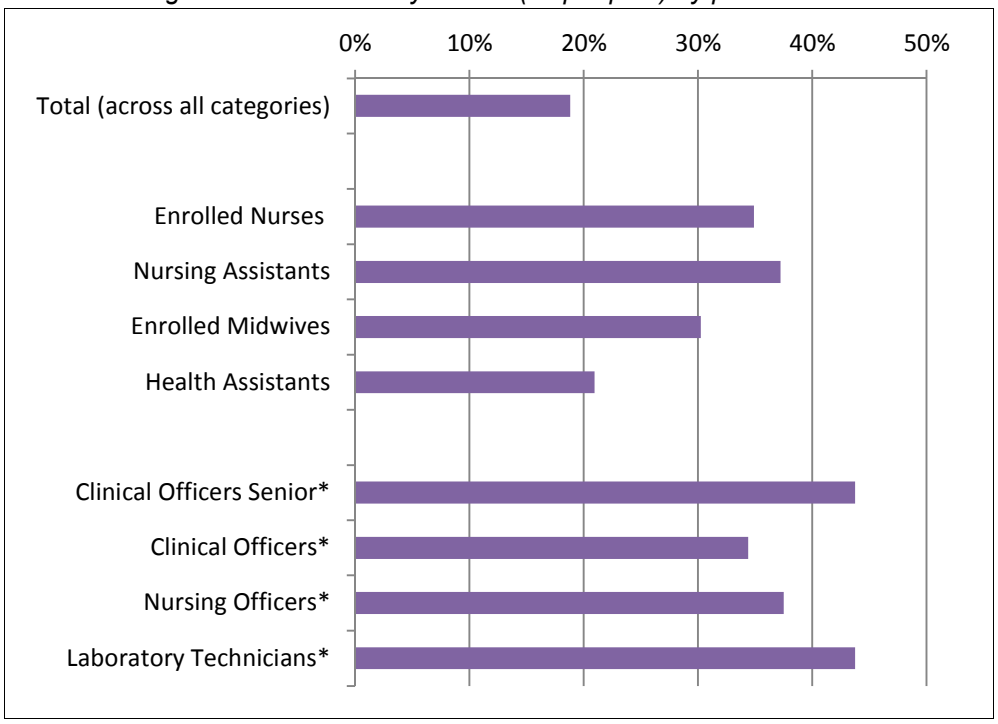


Respondents estimate that child health indicators have progressed by about 12-13 percentage points between 2008 and 2014.

3.3 Human resources

Question: Please indicate for each staff category whether the unit is currently fully staffed (as per plan).

Figure 12 Percentage of health units fully staffed (as per plan) by profession



**only applied to level III health units*

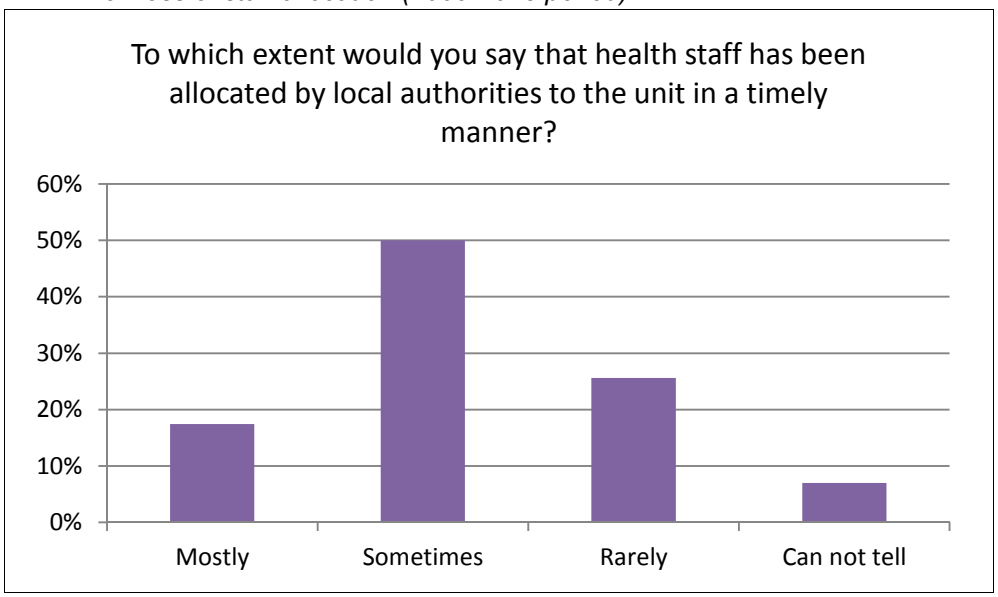
Most health units are understaffed, only 19% of the respondents stated that their unit was fully staffed in all categories. Health assistant and midwife positions are particularly understaffed.

Question: Has the staffing situation improved in the period 2009-2013?

48% of the respondents indicate that the staffing situation has improved in the 2009-2013 period and 50% state that it has not (2% 'do not know').

Question: To which extent would you say that health staff has been allocated by local authorities to the unit in a timely manner?

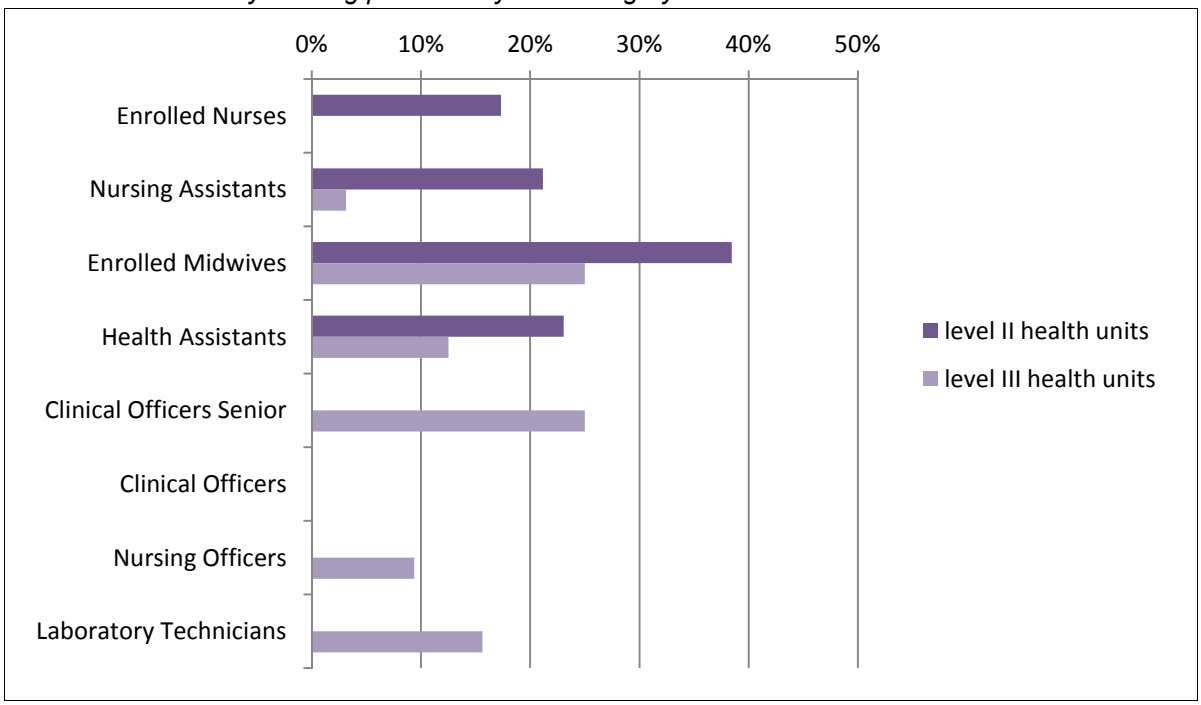
Figure 13 Timeliness of staff allocation (2009-2013 period)



Timeliness of staff allocation seems to be an issue, only 17% of the respondents indicate that health staff has been allocated timely by the authorities.

Question: Which staff category that is most difficult to fill in your health unit?

Figure 14 Difficulty of filling positions by staff category

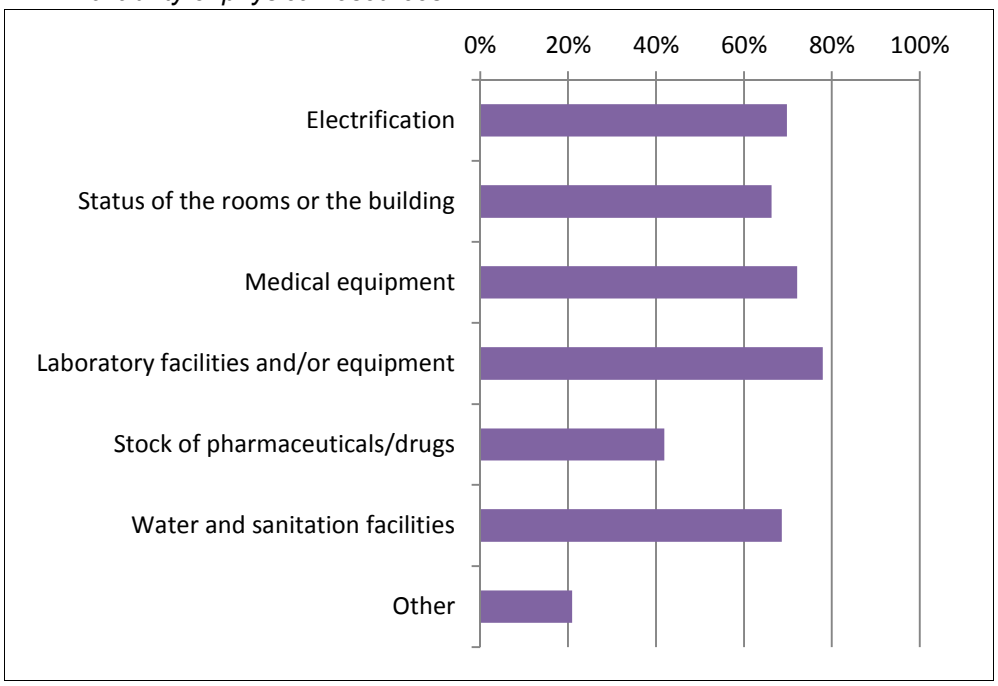


According to the respondents, health units have most problems finding midwives, followed by health assistants and senior clinical officers.

3.4 Physical resources (incl. water and sanitation)

Question: Has the availability of the following resources increased or decreased since 2004?

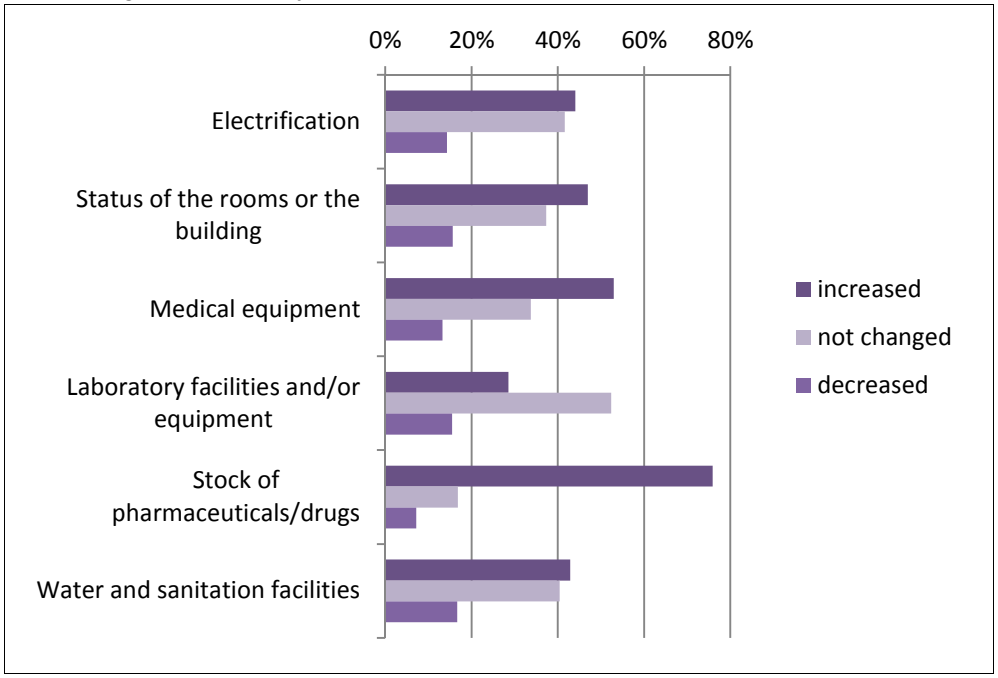
Figure 15 Availability of physical resources



More than to thirds of the respondents consider their health unit's laboratory facilities, medical equipment, electrification, water and sanitation facilities and the general status of the building inadequate. Only the stock of pharmaceuticals and drug is rated more positively, with 42 % considering it insufficient.

Question: Has the availability of the following resources increased or decreased since 2004 (or the year when you joined this health unit)?

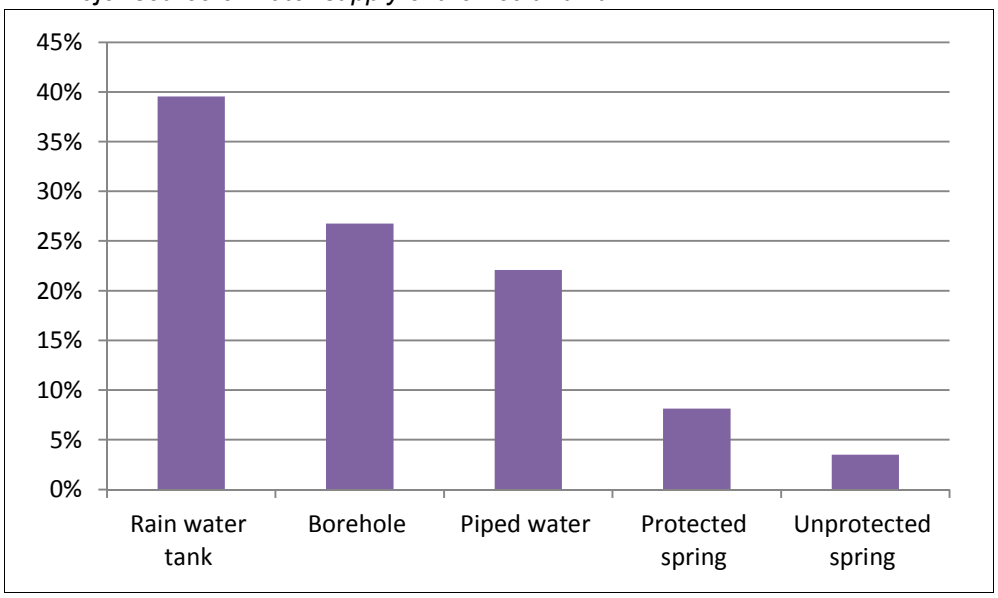
Figure 16 Change in availability of resources



Respondents agree that the supply of medicine has improved in the last 10 years, which is consistent with the observation above. In other areas, views are diverging although most respondents state that the situation has not deteriorated (i.e. availability of the resource has either increased or not changed).

Questions:
What is the major source of water supply which health unit depends on?
Is the source indicated above at the health unit? If no, please indicate the walking distance to the source (in km, average)

Figure 17 Major source of water supply of the health unit

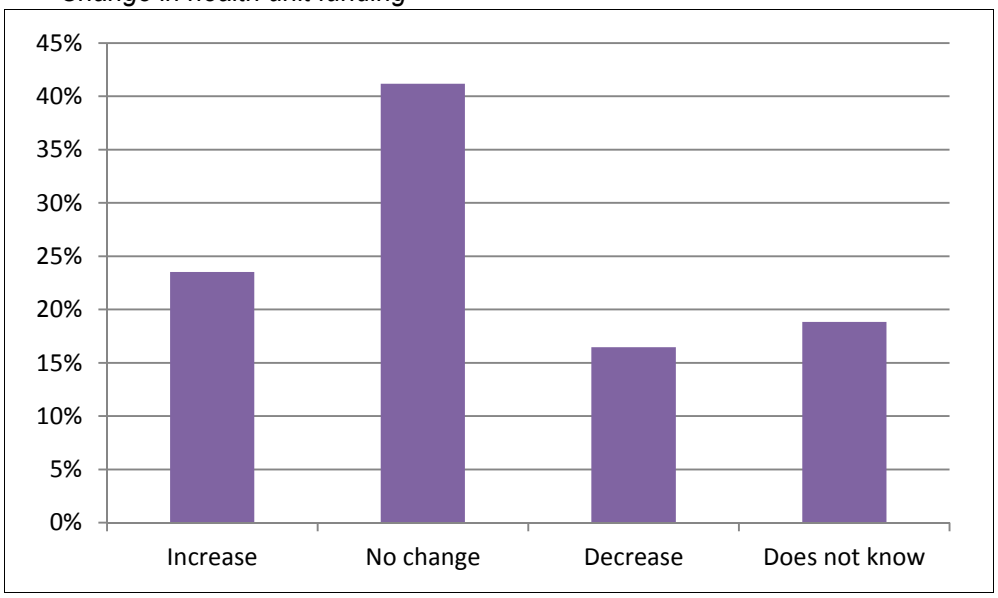


Most health units use rain water tanks, boreholes or piped water as their main water source. In 70 % of the health units, the water source is directly at the health unit. In 30 % of the cases, the water source is outside the health unit, an average 1.4 km walking distance away.

3.5 Financial planning and interactions with local authorities

Question: Has your health unit experienced a change in funding per patient since 2004 (or the year you started working in this unit)?

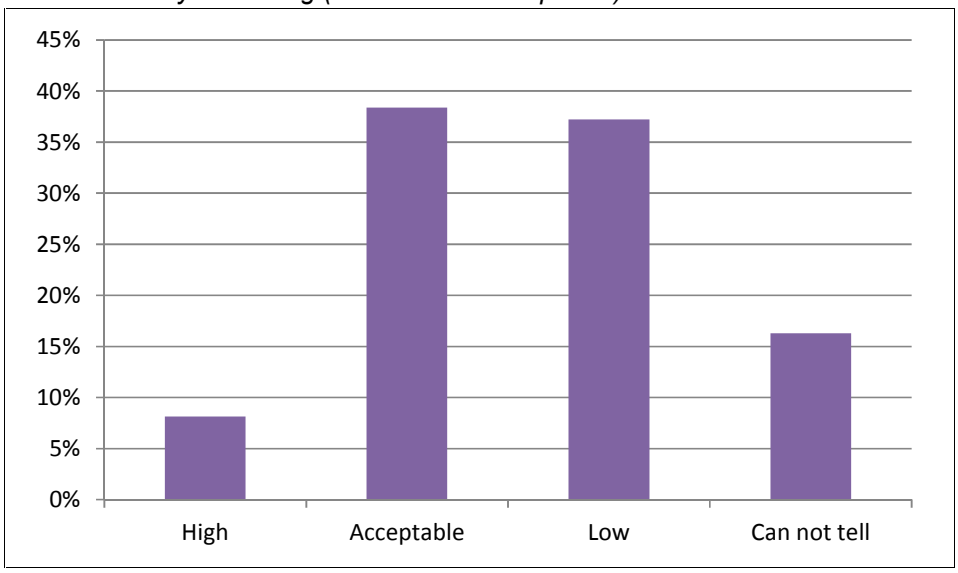
Figure 18 Change in health unit funding



One fourth has observed an increase in per patient funding since 2004, 16% a decrease and 41% no change.

Question: Independently of the levels of funding received, how do you rate the predictability of government funding for your health unit?

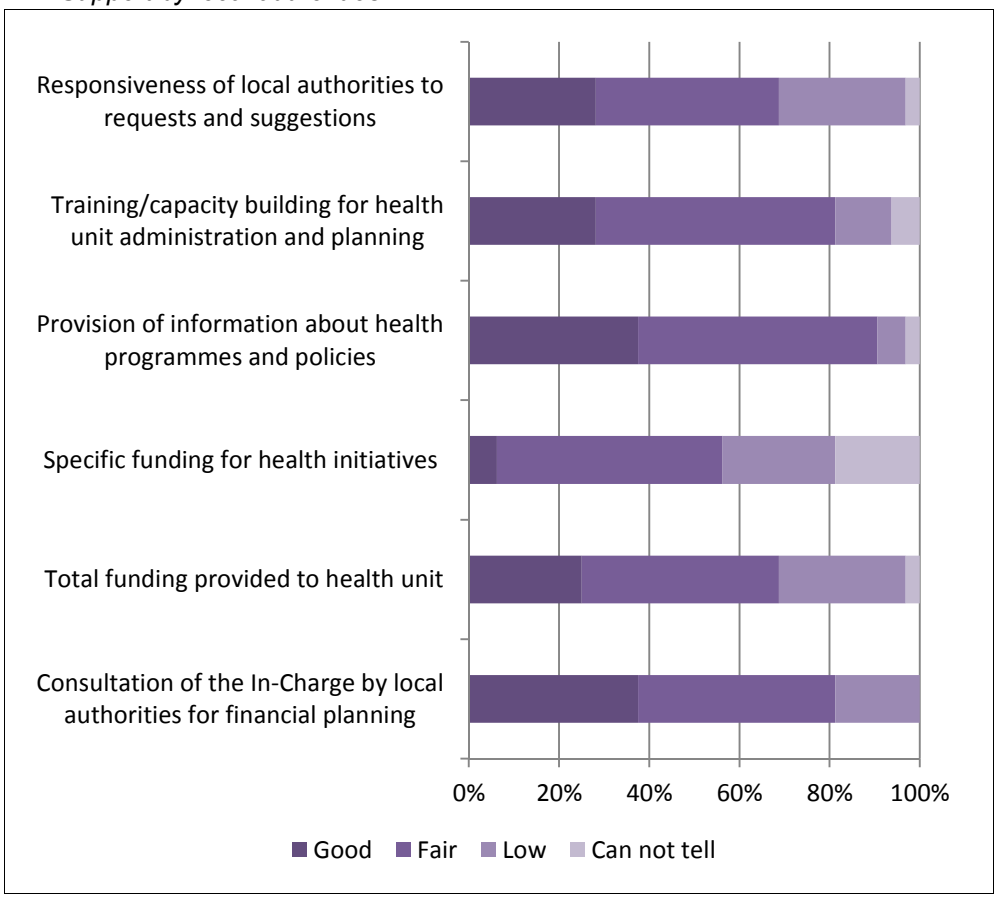
Figure 19 Predictability of funding (in the 2009-2013 period)



Predictability of funding appears to be a problem for health units. 37 % rate predictability as low, 38 % as acceptable and only 8 % as high.

Question: How would you rate the following types of support and involvement by local authorities in order for you to be able to undertake key management functions for this health unit?

Figure 20 Support by local authorities

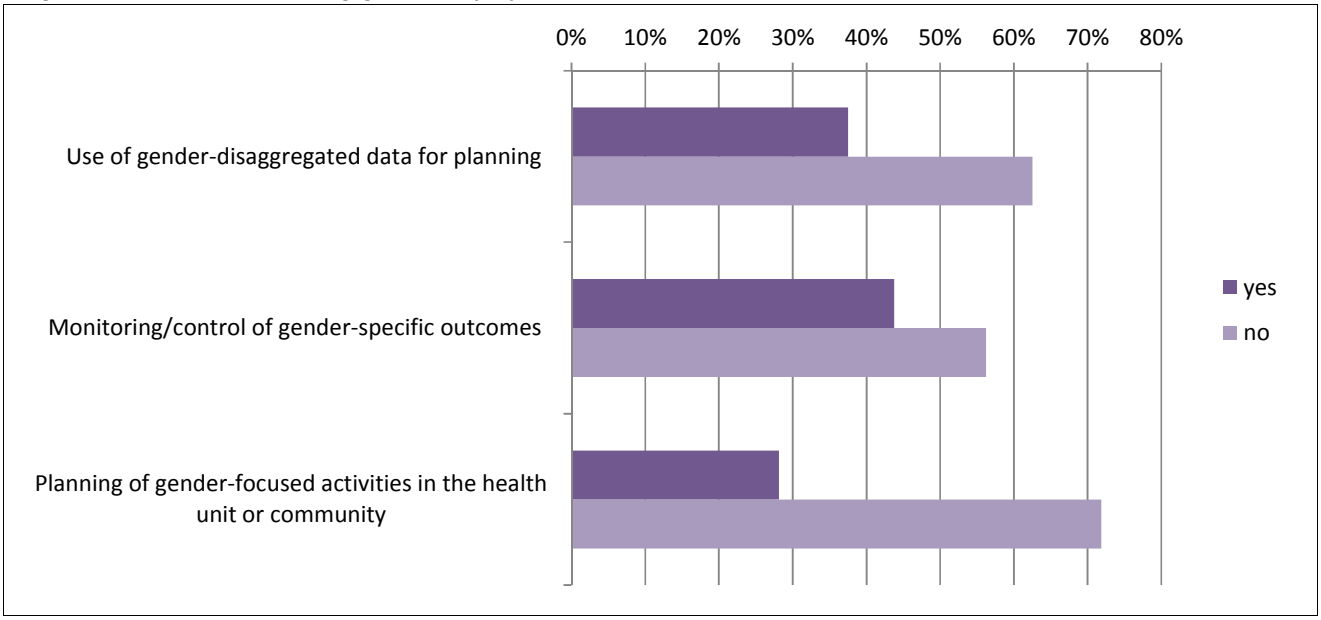


The provision of information and consultation by local authorities were rated positively, while funding (both general and for specific initiatives) and responsiveness of authorities to requests were rated moderately.

3.6 Gender budgeting

Question: During the budget preparation and planning process for your health unit, are you given any of the following instructions by local authorities to specifically address gender equity? (question only applied to level III health units)

Figure 21 Addressing gender equity

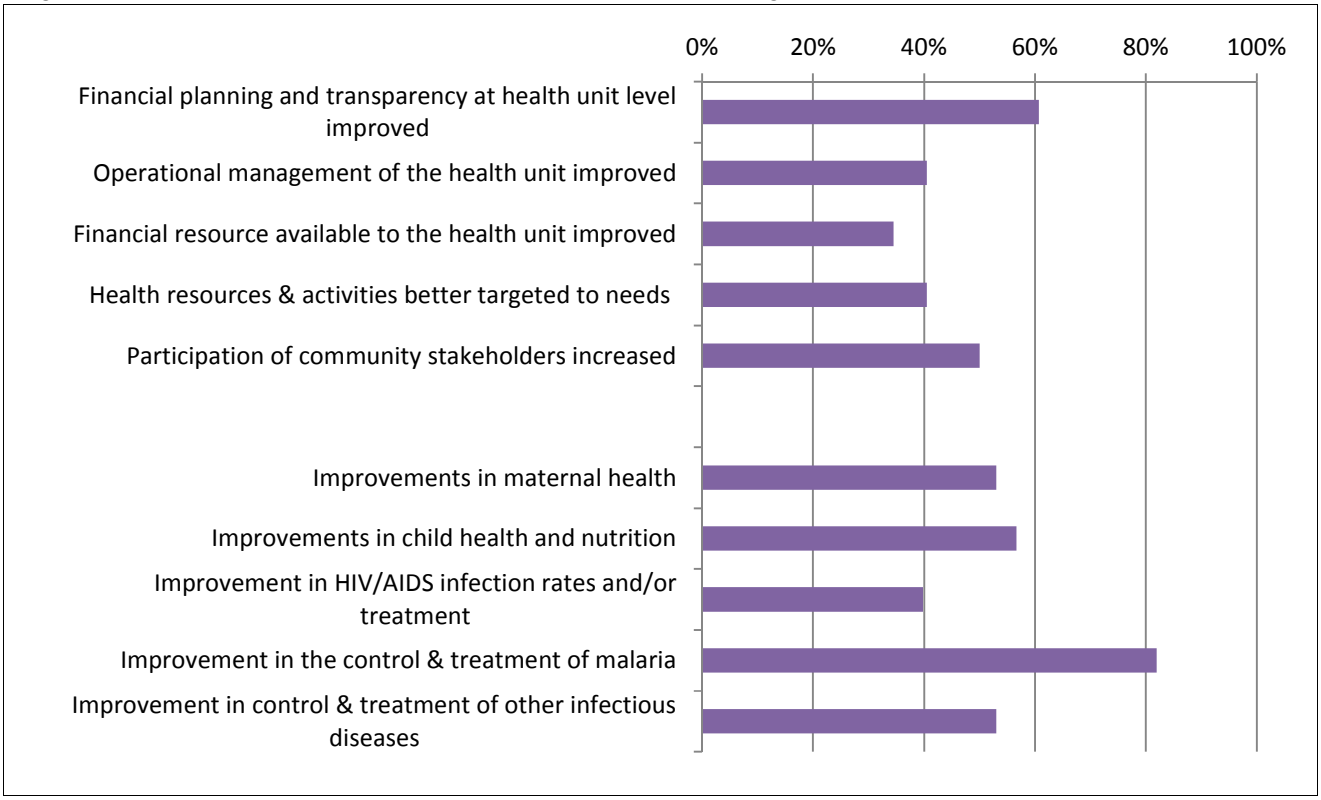


The majority of the respondents indicated that they do not receive instructions by local authorities on how to address gender equity during the budget planning and preparation process.

3.7 Policy changes

Question: Please indicate the outcomes to which the decentralisation of budgeting/planning via local governments has made a positive contribution (over the last decade).

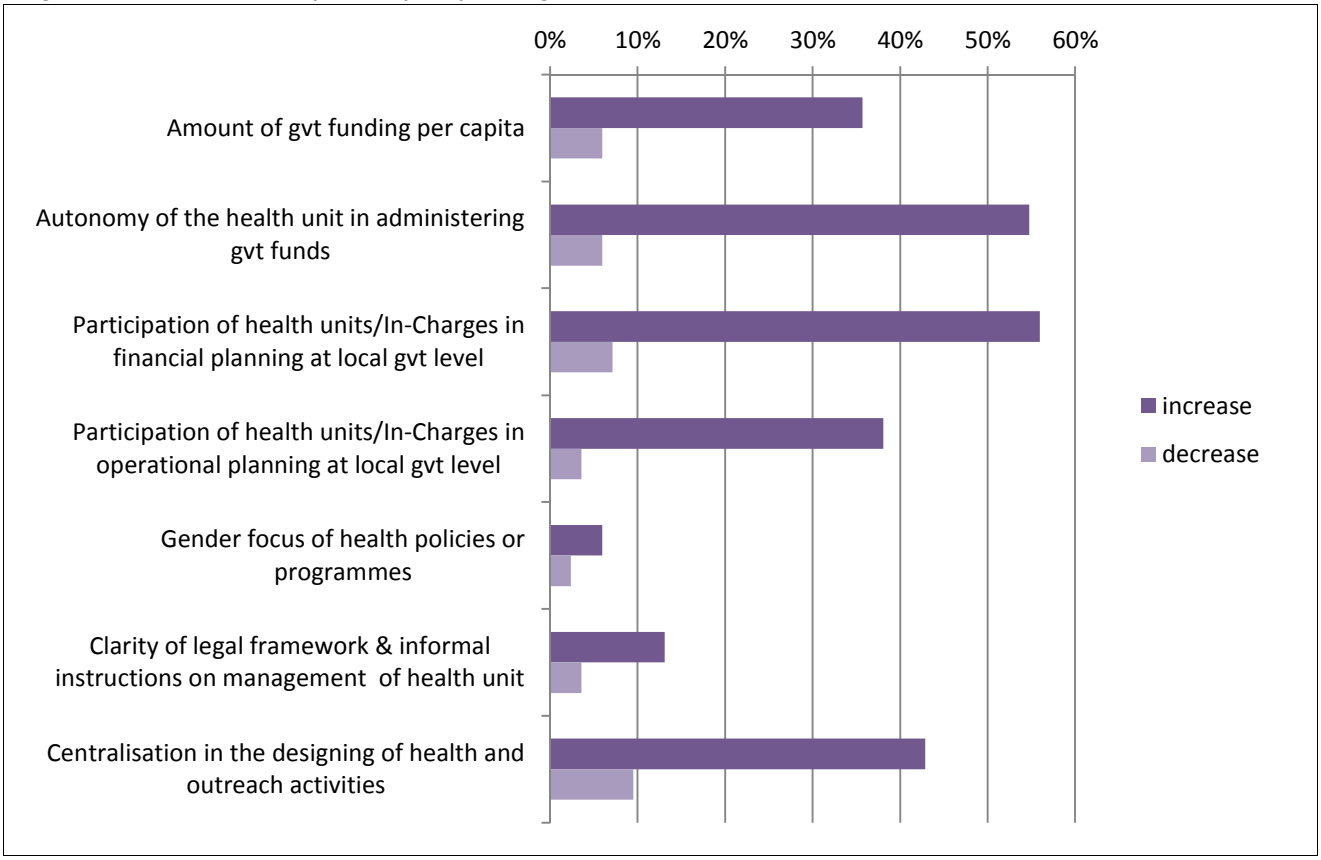
Figure 22 Effects of decentralization on health unit management and health outcomes.



The respondents have rated the effects of decentralization on two different subject areas - management of the health unit and health outcomes (separated by an empty space in the chart above). With regards to the management of the health unit, the respondents note a positive influence on financial planning and transparency while availability and targeting of resources as well as operational management were rated less positively. Looking at health outcomes, the broad majority of respondents links decentralization improvements in control and treatment of malaria.

Question: Please indicate up to 3 changes that you consider as most important in your sector in the last years (excl. decentralisation). Please indicate whether this change was an increase or decrease.

Figure 23 Most important policy changes

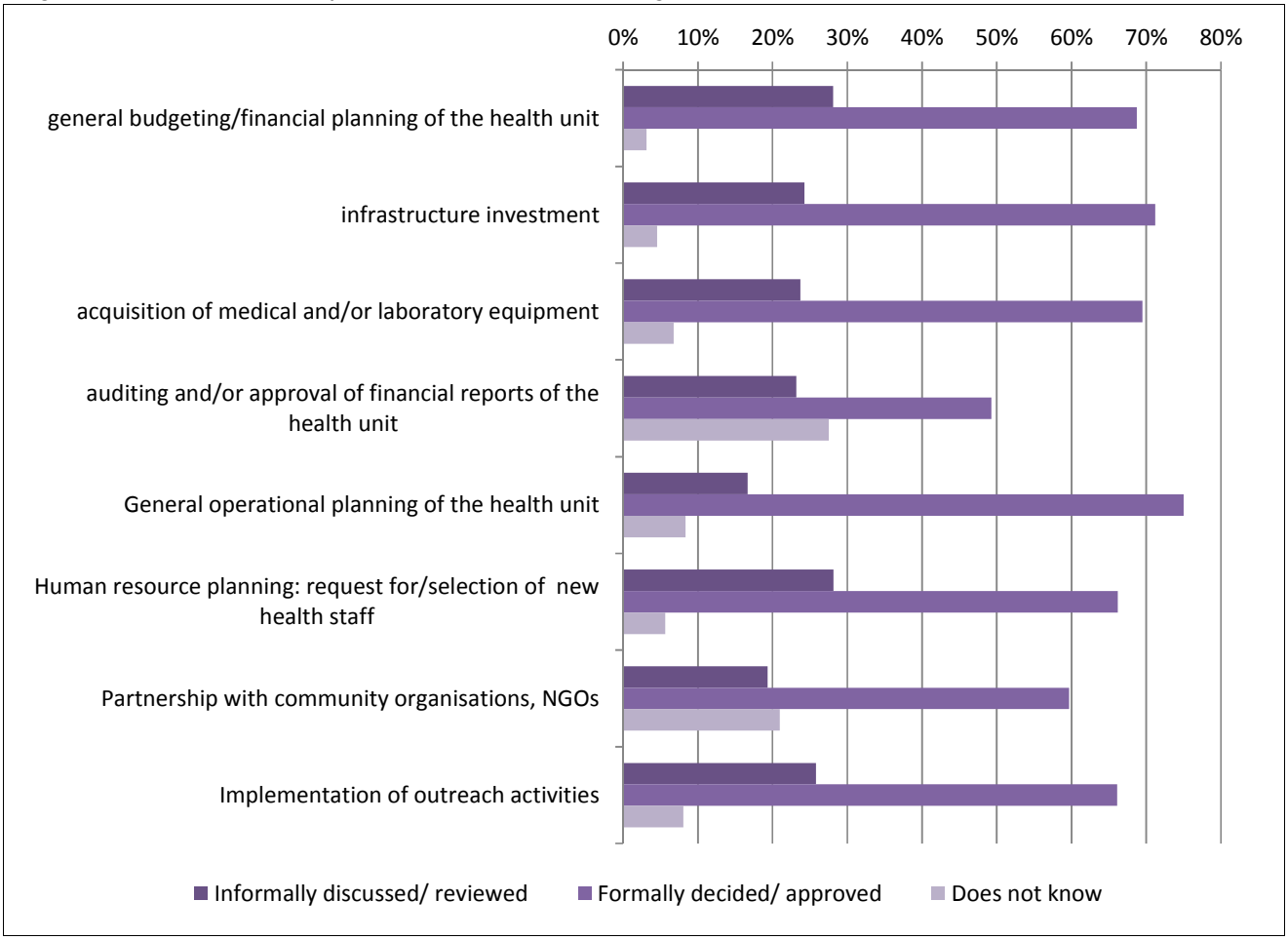


According to the respondents, the most important policy changes in the health sector were an increasing autonomy of health units in administering funds and an increasing participation in financial planning at local government level.

3.8 Management committees - Mode of Operation, Planning and Supervision Activities

Question: Please indicate for each affair whether is informally discussed/reviewed or formally decided/approved (e.g. voted) by the Committee

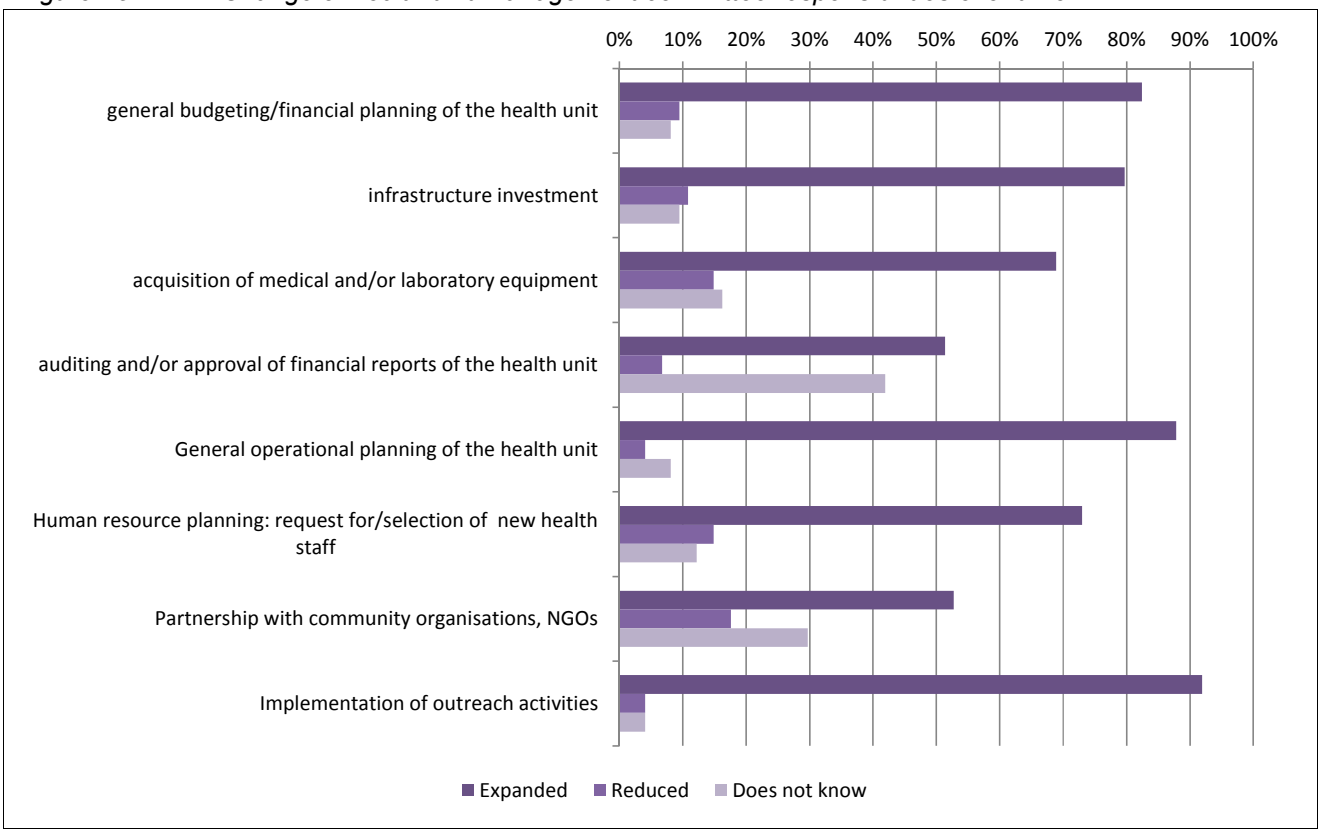
Figure 24 Mode of operation of health unit management committees



Most of the health units formally decide or approve their affairs instead of simply discussing them informally.

Question: How have these responsibilities changed over time since the year this Committee was created (or the year you joined the Committee)?

Figure 25 Change of health unit management committee responsibilities over time

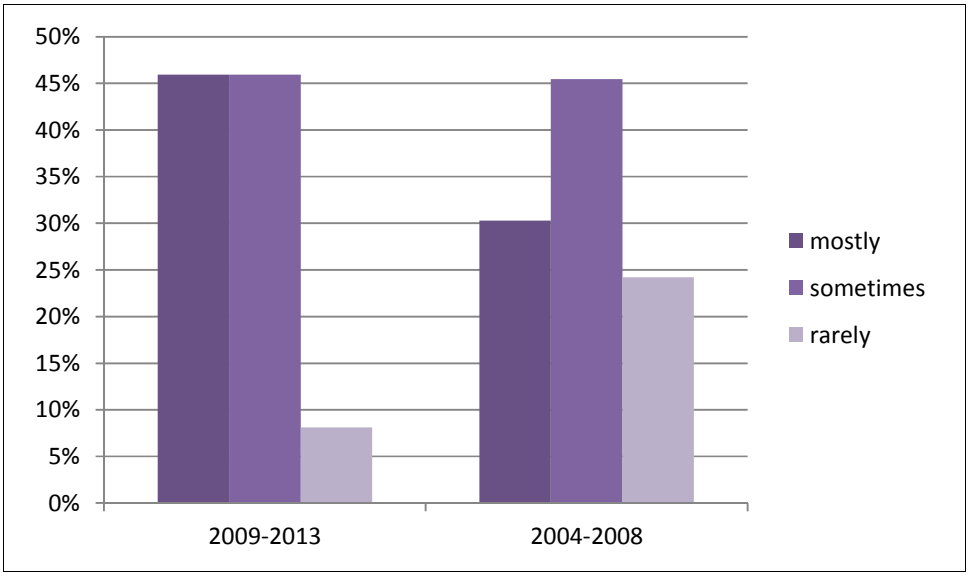


The majority of the health unit management committees have expanded their responsibilities over time.

3.9 Management committees – Capacity of health staff and constraints to service delivery

Question: To which extent would you say that the qualification of health staff allocated by local authorities has matched the needs of the health units and its patients?

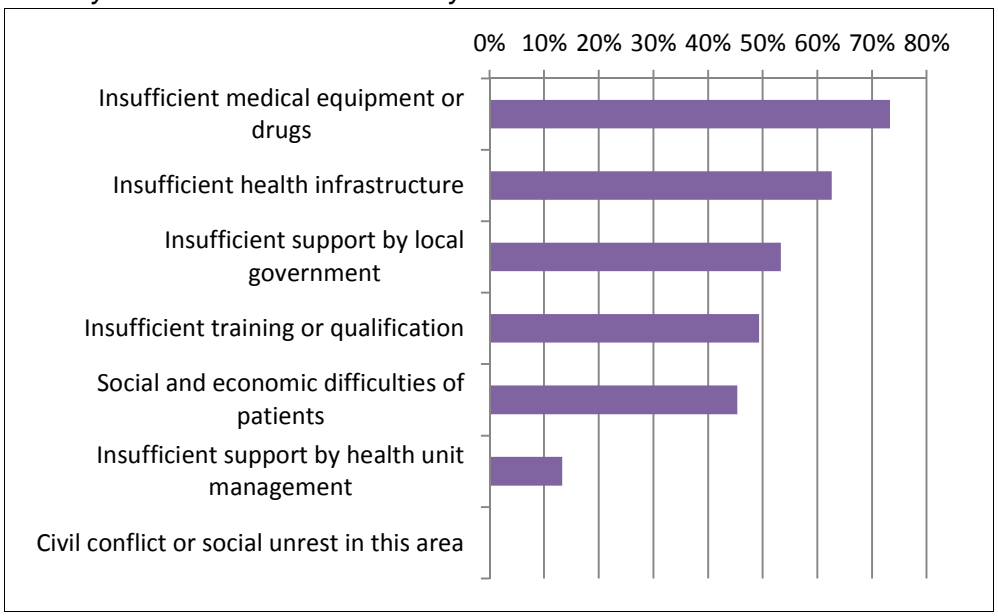
Figure 26 Qualification of health staff



The respondents rated the qualification of health staff that allocated in the 2009-2013 period higher then those that were allocated in the 2004-2008 period.

Question: Please indicate a maximum of 3 key challenges/constraints to performing your work.

Figure 27 Key constraints to service delivery



Insufficient medical equipment and health infrastructure are cited as the most important constraints to service delivery. Lack of support by local government, insufficient training and socio-economic difficulties of patients are cited by about 50% of the respondents.

4 Analysis of responses from the schools (Type C)

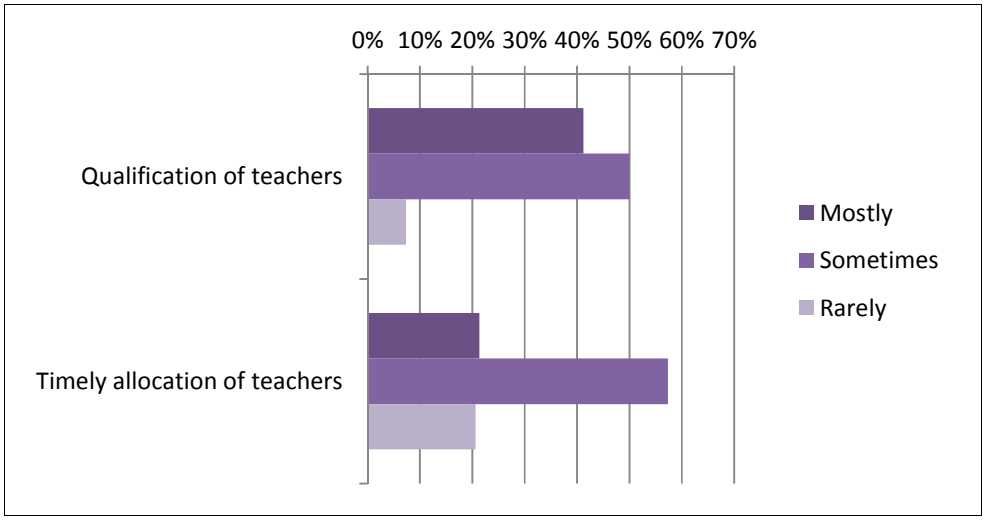
4.1 Overall key findings

- Teachers are often allocated to schools with significant delays.
- Physical resources are mostly judged inadequate for the good functioning of the schools.
- Predictability and stability of school funding is problematic.

4.2 Human resources

Questions:
Has the qualification of allocated teachers has matched the in the school years 2011 to 2013?
Have the requested teachers been allocated in a timely manner in the school years 2011 to 2013?

Figure 28 Qualification of teachers and timeliness of teacher allocation

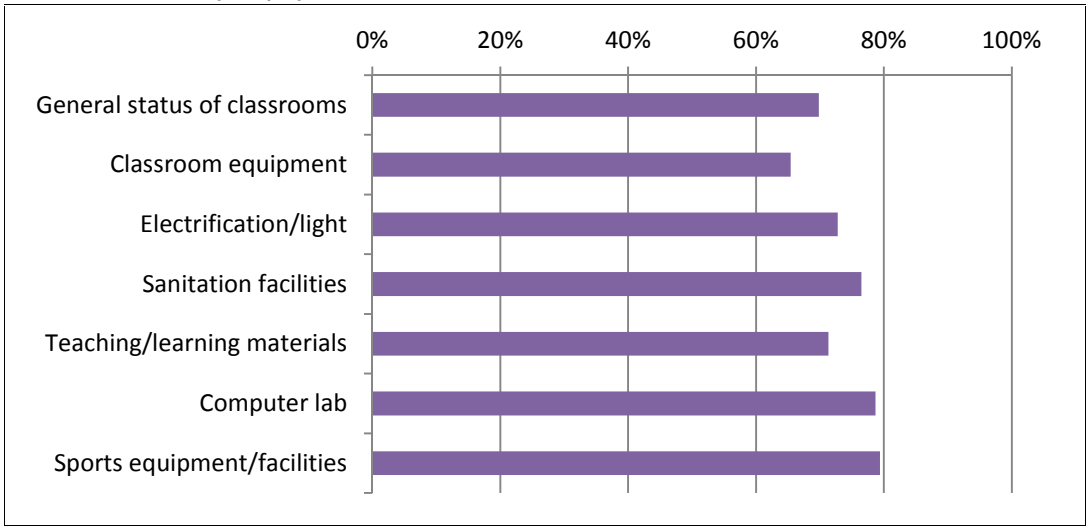


Respondents were more satisfied with the qualification of teachers than with the timeliness of their allocation.

4.3 Physical resources (incl. water and sanitation)

Question: Which of the following school resources do you currently consider insufficient for the good functioning of this school?

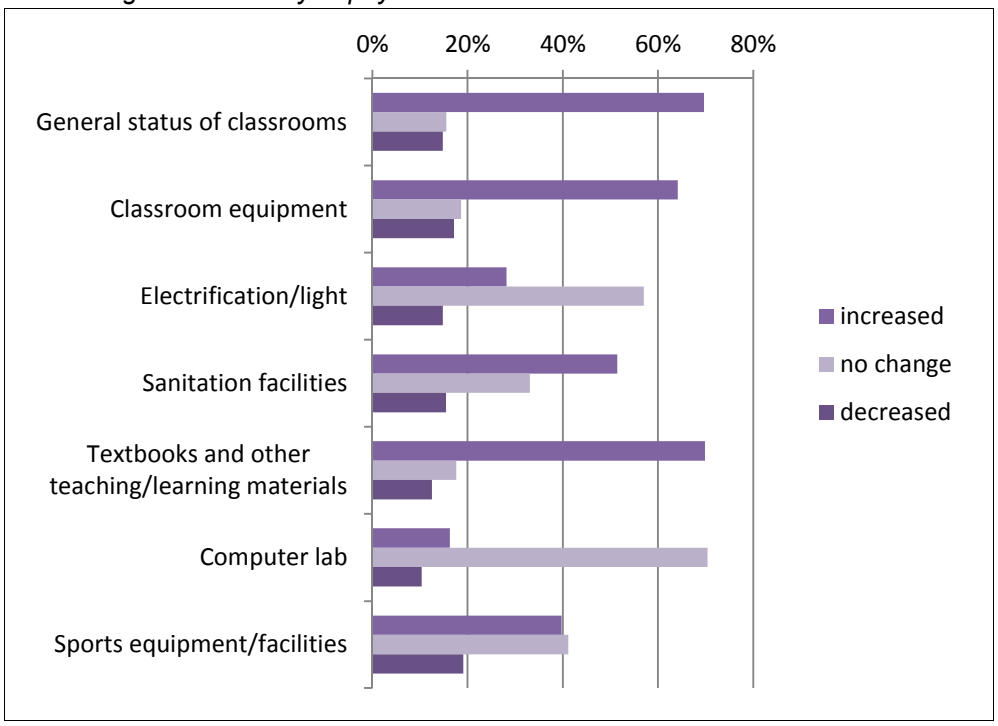
Figure 29 Availability of physical resources



The majority of the respondents judged the physical resources in their schools as inadequate. Computer labs, sports and sanitation facilities are rated inadequate by more than 75%.

Question: How has the availability of these resources changed since 2004 (or the year you joined this school)?

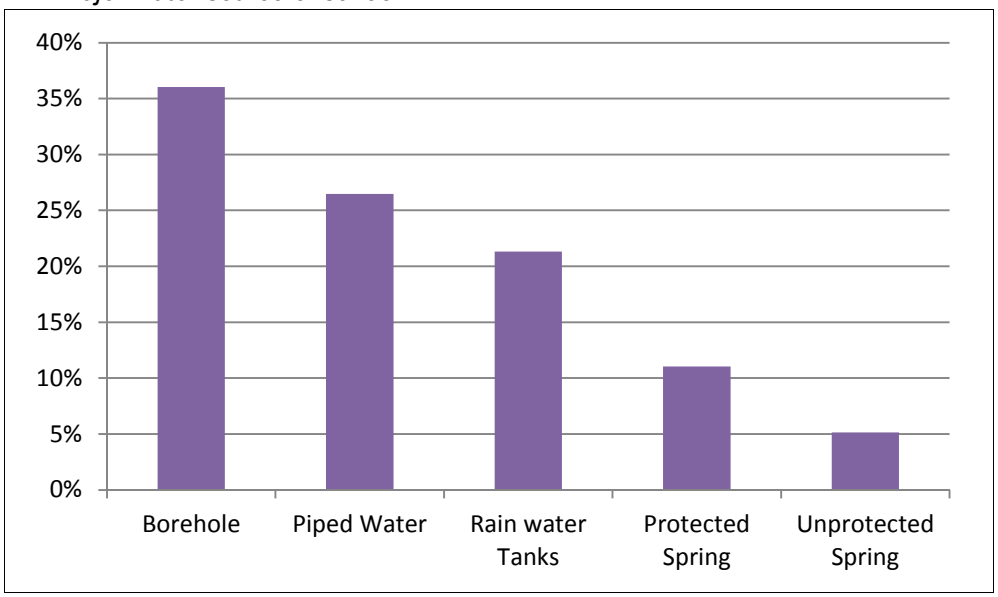
Figure 30 Change in availability of physical resources



Most respondents state that the general status of classrooms, the availability of textbooks and classroom equipment have improved over the last 10 years, although they are rated as insufficient in the question above. Progress in computer labs was judged the lowest

Question: What is the school's main water source?

Figure 31 Major water source of school

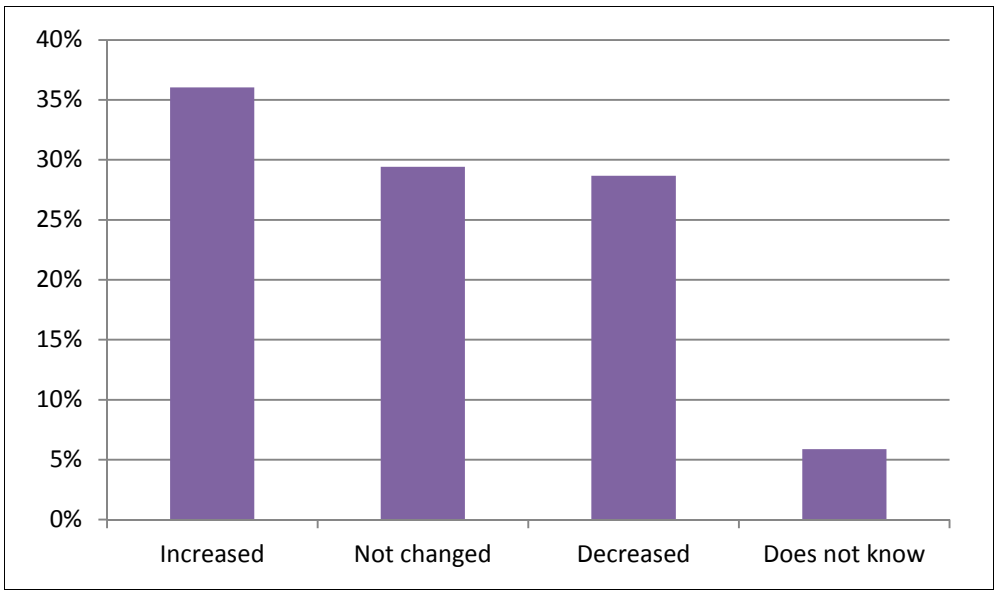


Most schools have access to improved water sources, in 16 % of the cases a spring is the main water source.

4.4 Financial planning and interactions with local authorities

Question: Has your school experienced a change in funding per student since 2004 (or the year you joined this school)?

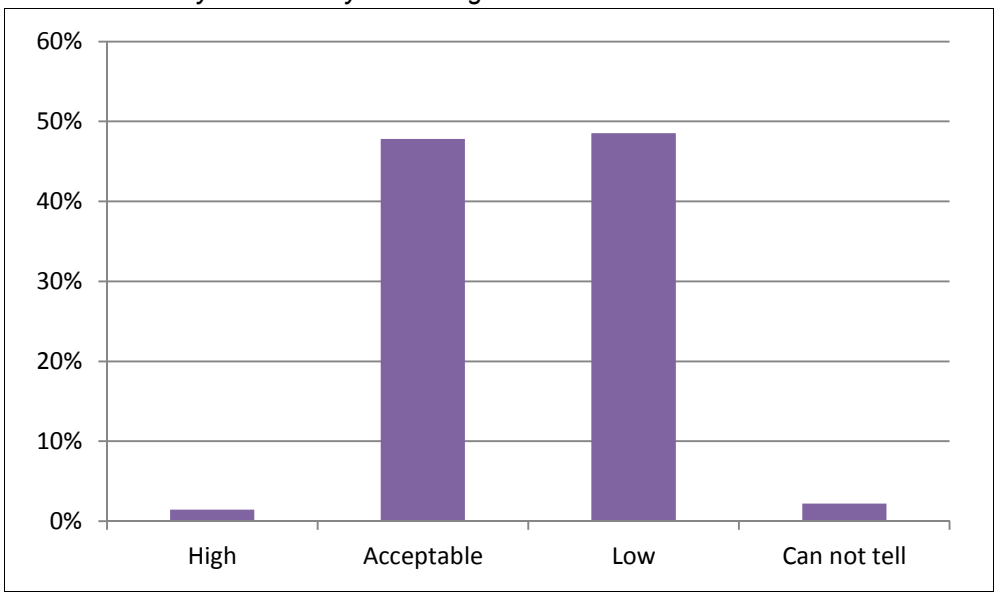
Figure 32 Change in per student funding



The responses do not provide a clear picture on the question of how per student funding has developed over time. While 36% state that per student funding in their school has increased since 2004, 58% state that it has not changed or decreased.

Question: Independently of the levels of funding received, how do you rate the predictability or stability of government funding for your school in the school year 2011 to 2013?

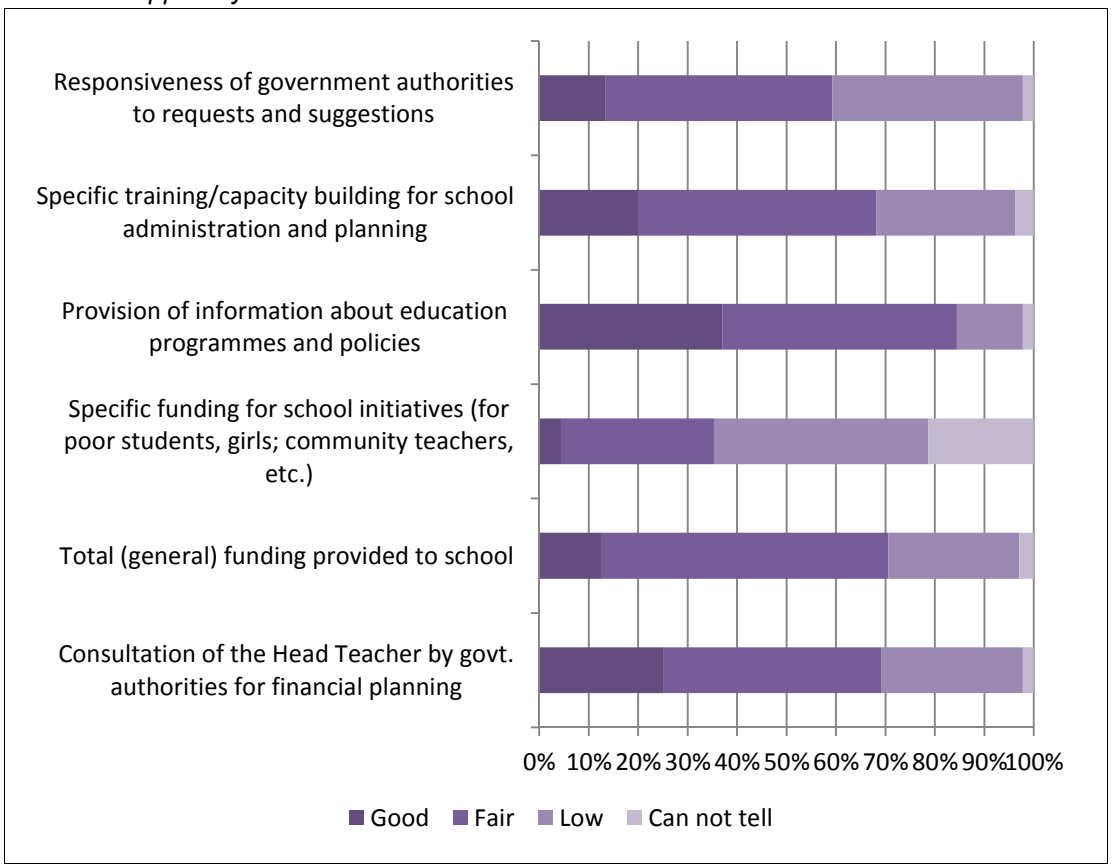
Figure 33 Predictability and stability of funding to schools



Predictability of funding seems to be a big problem in the education sector – only 1% of the respondents judged predictability high, while 49% rated it as low and 48% as acceptable.

Question: For each of the types of support received by the national/local authorities in the list that I am going to read you, how would you rate it in order for you to be able to efficiently manage your school?

Figure 34 Support by authorities

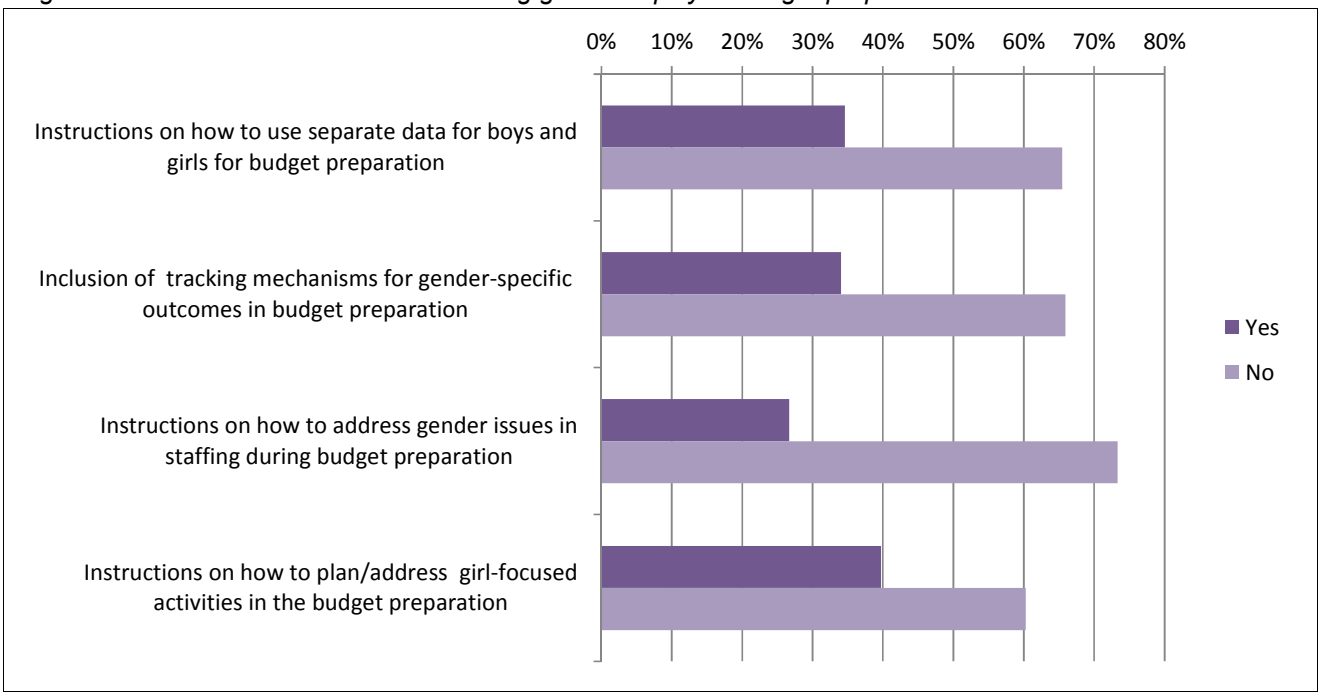


The head teachers judged the provision of information about education programmes and policies positively.

4.5 Gender

Question: Are you given any specific instructions by local or national authorities on how to address gender equity when you prepare the budget for this school?

Figure 35 Instructions on addressing gender equity in budget preparation

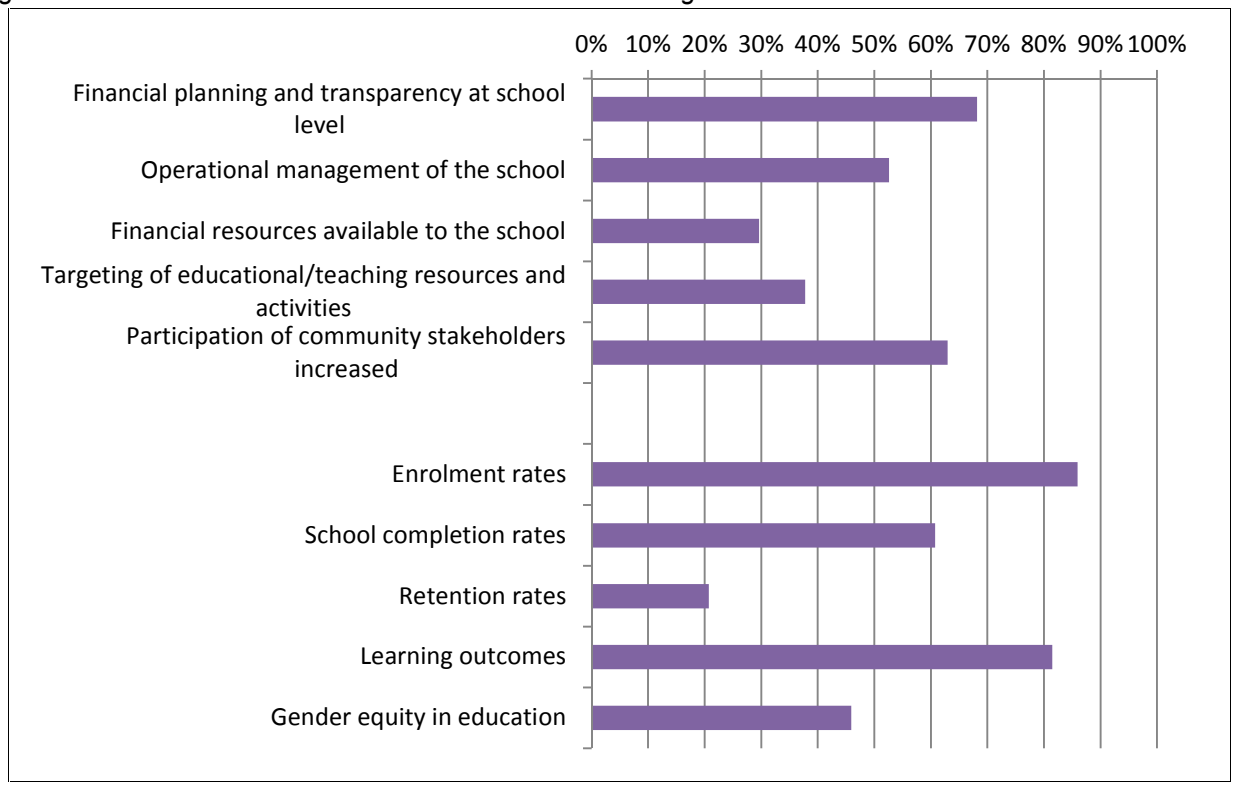


The majority of the surveyed head teachers states they had not received instructions on how to include gender equity issues into the budget process.

4.6 Policy changes

Question: Please indicate to which of the following outcomes the decentralisation of budgeting/planning via local governments has made a positive contribution (over the last decade or the year you joined this school).

Figure 36 Effects of decentralization on school management and education outcomes



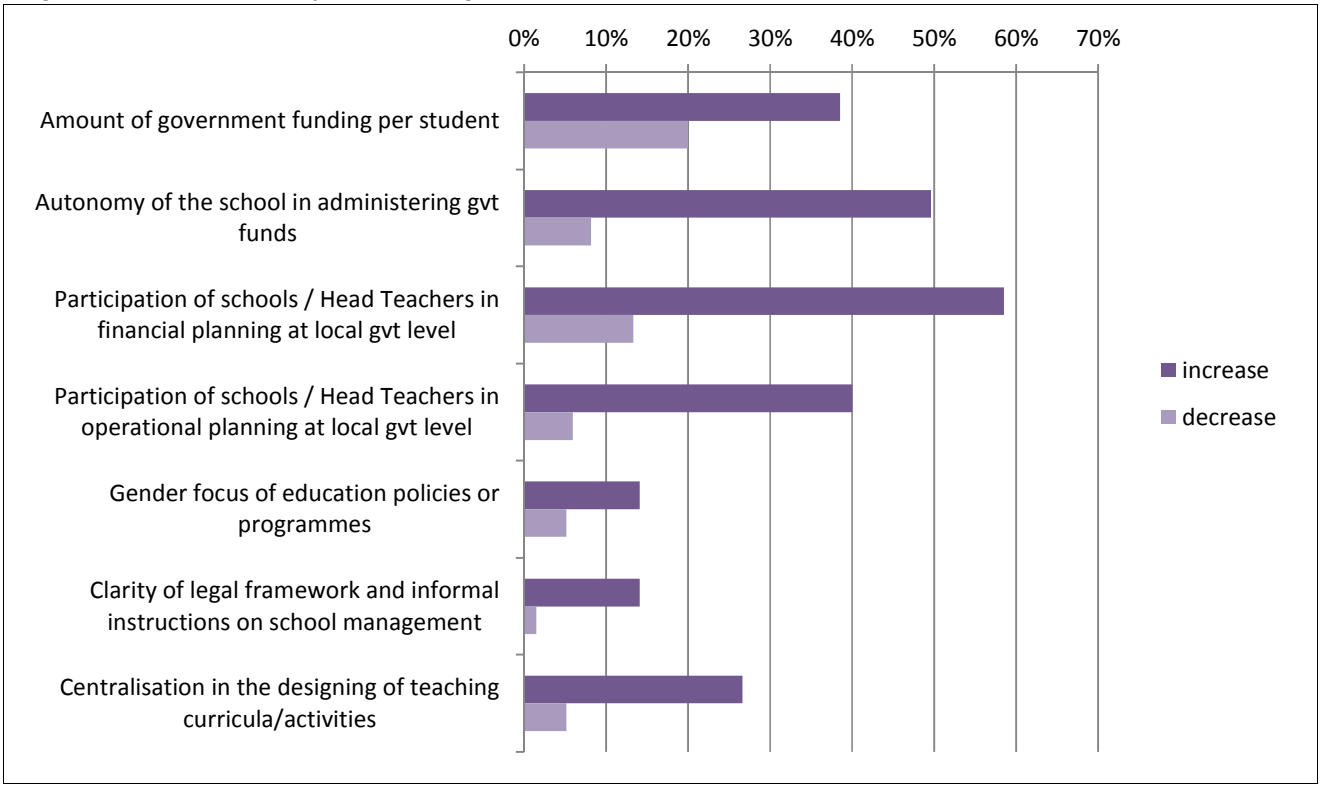
With regards to school management issues, the majority of the respondents links
Looking at education outcomes, more than 80% of the respondents associate improved enrolment rates and learning outcomes with decentralisation of budgeting.

Questions:

Please indicate up to 3 changes that you consider as most important in your sector in the last years (or the year you joined this school).

For those selected (and only for these), please indicate whether this change was an increase or decrease.

Figure 37 Most important changes

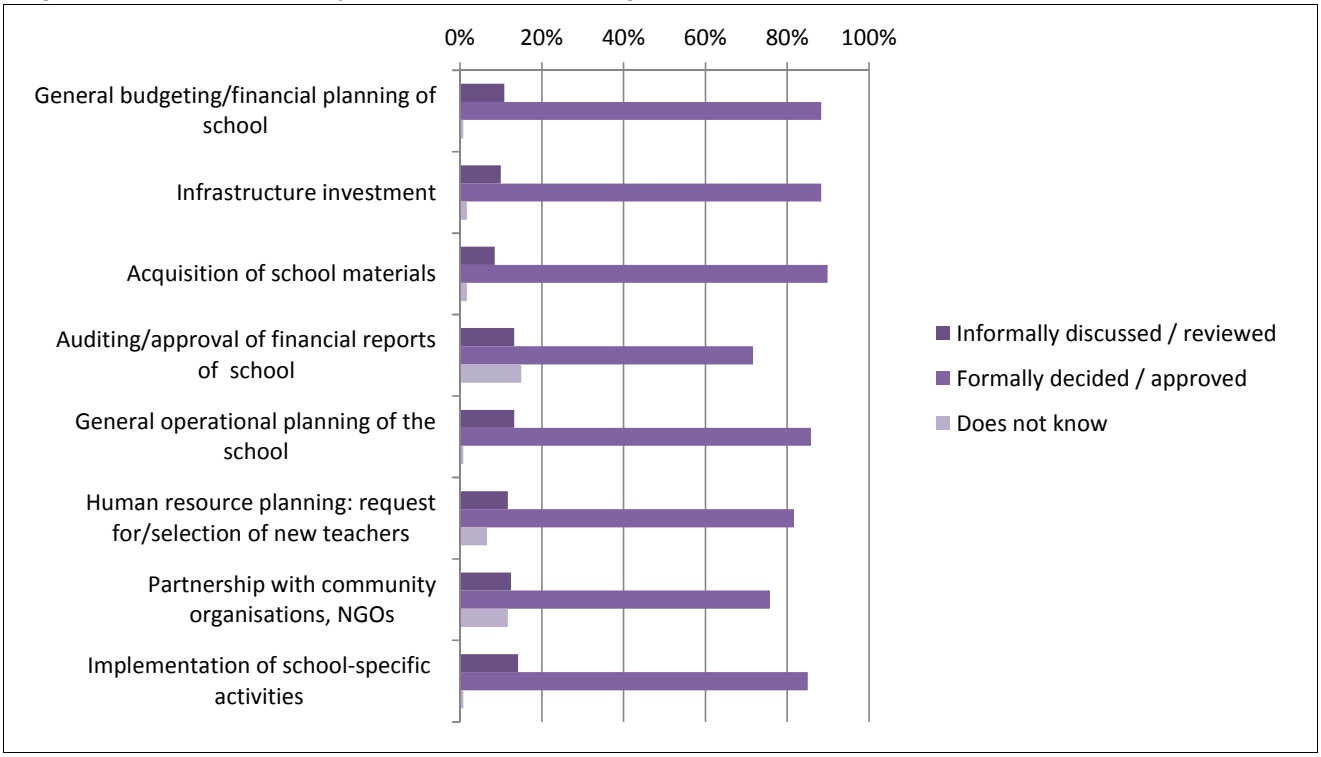


- The respondents view the participation of schools in LG planning (both financial and operational) as most important change in the sector, followed by the autonomy of schools in administering funds and the per student funding.
- Most of the changes have been rated as positive.

4.7 School Management committees

Question: Please indicate for each of the following affairs whether it is informally discussed/reviewed or formally decided/approved (e.g. voted) by the Committee.

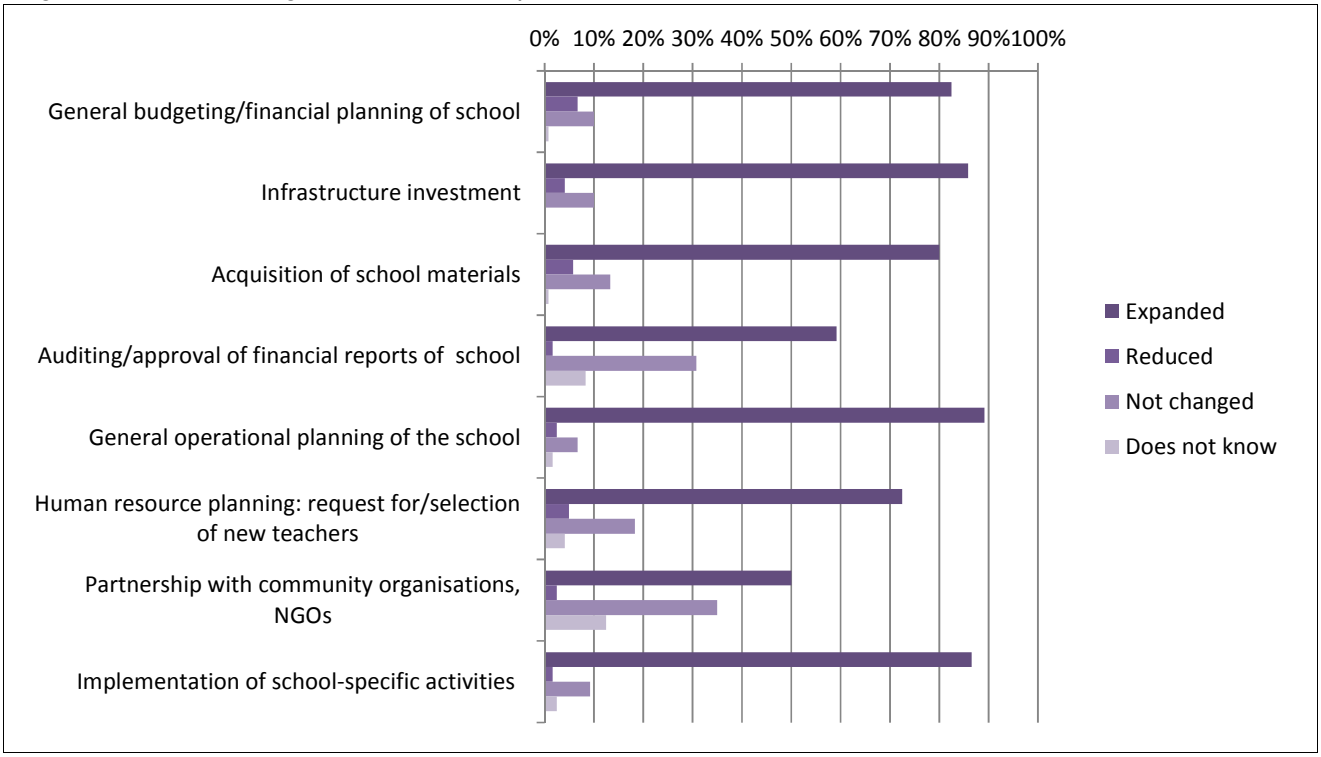
Figure 38 Mode of operation of school management committees



Most of the school management committees operate with formalized decision making processes.

Question: Please indicate for each of the following responsibility whether the Committee's decision-making has expanded, reduced or not changed

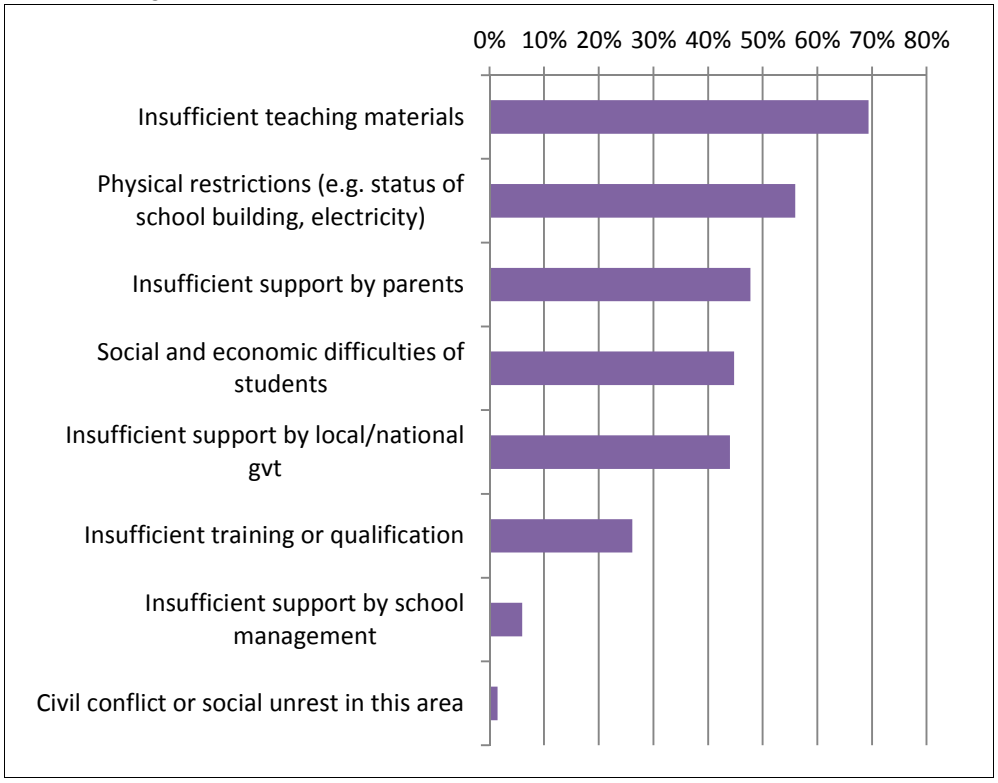
Figure 39 Change of committee responsibilities over time



According to the majority of the respondents, school management committees have expanded their responsibilities in all fields in the recent years.

Question: Please indicate a maximum of 3 key challenges/constraints to performing your work.

Figure 40 Challenges at school level



Most respondents cite inadequate physical resources (teaching materials, school buildings etc.) as challenges, followed by problems related to the students' environment (family support, economic situation).

Annex 8: eSurvey report

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1 Overall purpose and structure of the questionnaire

As indicated in the ToR of the evaluation, the stakeholder survey was primarily geared towards the collection of information on issues related to the design and implementation of the BS operations under consideration. A few questions were nevertheless pitched at a higher level to cover issues linked to policy reform efforts and progress achieved in terms of development outcomes. The survey was primarily targeted towards national level stakeholders (including government officials across the different line ministries and institutions, development partners and non-state actors) directly involved in BS operations.

The survey complements the information gathered through documentary reviews and interviews with regard to issues related to the design and implementation of the BS operations; and complements information gathered through documentary reviews, interviews, quantitative analyses and the field survey with regard to policy reform efforts and their results at outcome and impact level.

As a result, while each survey question relates to the different aspects tackled by the evaluation matrix used in the evaluation, the survey does not mirror the complete spectrum of the matrix but provides the team with additional subjective views on the main issues at stake.

The questionnaire featured six sections. The first two sections are very short and aimed at identifying the type of respondent and his/her involvement with BS operations. Sections three to six are longer and aimed at gathering information on the effects of BS operations across the three central levels of the comprehensive evaluation framework for the evaluation of budget support, i.e. direct outputs, induced outputs and outcomes.

The questionnaire was structured – with a couple of exceptions - in a series of closed questions with a rating scale 0-3 (plus the "don't know" answer). In addition, respondents had the possibility to further develop their answers through optional text boxes for comments.

2 Respondents

Four target groups were identified:

1. Government and other national institutions;
2. World Bank;
3. Other development partners; and
4. Non state actors.

The survey featured the same set of questions for all categories of respondents, although - according to the group and the question - there are differences in the depth of the replies and the views expressed. Around 300 resource persons with contact details were identified drawing on various sources of information.

The table below provide some details on the final respondents, including number of respondents by category. The coverage fully meets the requirements set in ToR, actually exceeding it.

Table 1 Overview of respondents

Target group	*Final number of respondents*	*Type of organisations covered*
Government and other national institutions	**21**	• Ministry of Finance, Planning and Economic Development • Office of Prime Minister • Line ministries • Other government agencies • Other national institutions
Development partners	**64**	• World Bank • EU • Other multilateral organizations • Bilateral partners
Non-state actors and other resource persons	**11**	• CSOs • International NGOs • Research organizations and consultancies • Independent consultants
Total	**96**	

3 Analysis of responses

The sections below provide an overview of the results of the survey following the overall structure of the questionnaire. The report starts by presenting of set of main findings, overall and by sector; and then proceeds with the detailed analysis of responses in relation to each question. The presentation of scores overall and by type of respondent is followed by the presentation of some main observations. In a number of cases, these are then followed by tables which present a summary of additional qualitative information provided by respondents through the use of the optional text boxes for comments.

3.1 Overview of the main findings

3.1.1 General findings

- The authorities consistently rate the contribution of budget support to the implementation of reforms higher than the donors and the non-state actors, and sector budget support seems rated higher than general support by most actors. This reflects the government's long-standing preference for budget support as an aid instrument.
- Budget support seems to have contributed to greater harmonization and coordination of donors.
- In terms of upstream policy formulation, PFM, education, health, and water and sanitation are best rated sectors, and agriculture, roads and transport, and gender (again with higher rating by non-state actors) the worst.
- Budget support is universally viewed as contributing to better fiscal and overall macro-management.
- The contribution of budget support to M&E is rated modestly (about 1.2 on the scale 0-3) by all actors.
- In most cases, the stakeholders have rated the respective sectors consistently over all categories (i.e. one sector has either received only positive or only negative ratings). There are however some exceptions to this observation: Health and education scored well in most categories but received low ratings for service quality; PFM was rated very positively across the board with the exception of budget credibility.

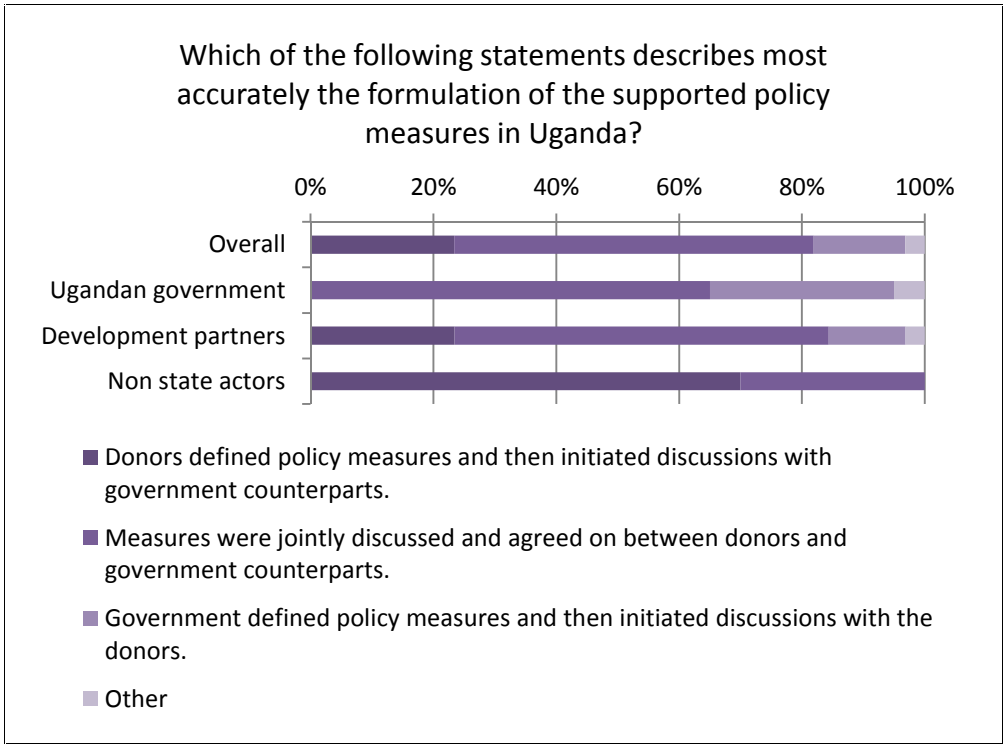
3.1.2 Findings by sector

- **Public Financial Management** (PFM) is one of the highest scoring sectors across all dimensions. The majority of the respondents rate capacity development efforts in this sector highly and state that budget support fostered dialogue in the sector, which in turn contributed to better formulation of policies. There is also agreement among the respondents that PFM reforms at large have advanced over the last years. However, when it comes to budget credibility, opinions are not uniform. Development partners and non-state actors rate progress in that sector more modestly than Ugandan government officials.
- Budget support operations in the **education** sector have been rated positively. Capacity development activities and sectoral dialogue score high and there is agreement that reforms have advanced and produced positive results in the area of access to education. When it comes to the quality of education, opinions are mixed and especially development partners see this area rather critically.
- The results in the **health** are similar to those in education: Respondents agree that capacity development activities and sector dialogue have made a positive contribution, reforms have advanced and access to health care services has progressed, while the quality of services is rated less positively.
- Budget support in the **Water and Sanitation** is viewed positively by all actors and scored well in all dimensions, especially in the area of improved access to services.
- **Gender mainstreaming and equality** has been rated poorly. Most respondents agree that capacity development and policy dialogue have had little effect and have not helped to improve the mainstreaming of gender issues into the reforms. In terms of outcomes, the stakeholders see little progress in gender equality in public administration and service delivery.
- **Other:** JLOS and local governance sectors have received average scores while the agriculture and roads were the sectors that received the poorest results (apart from gender, which is not a sector, but a cross-cutting issue).

3.2 Ownership, coordination and predictability

3.2.1 Definition of the strategic priorities

Figure 1 Who defined the priorities?

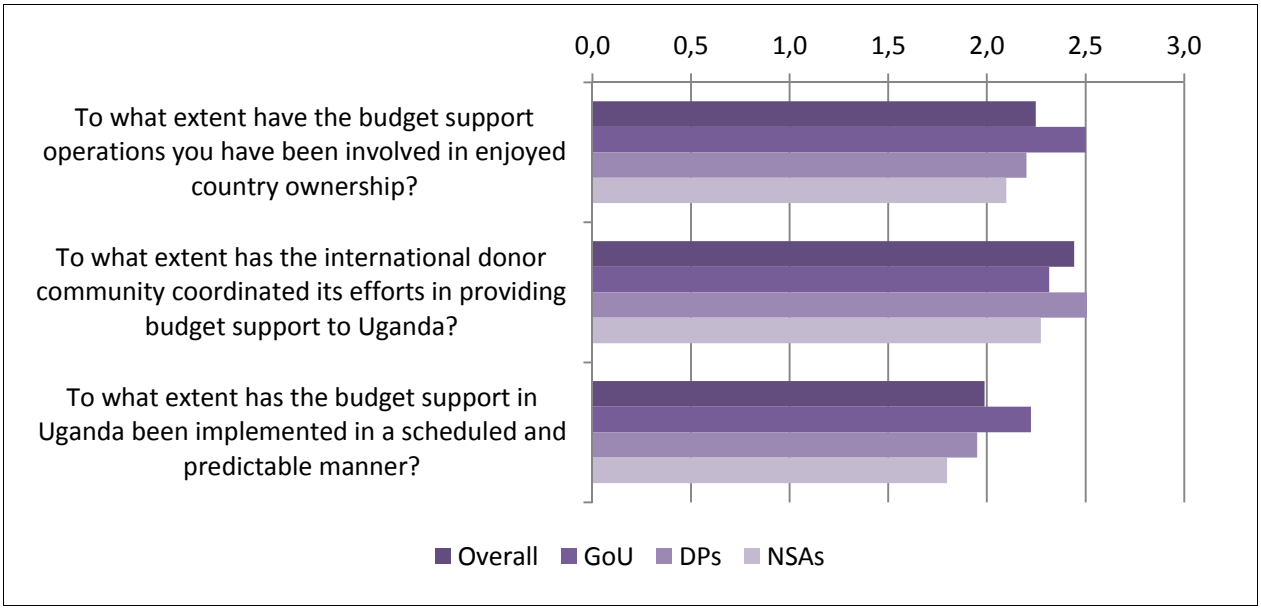


Main observations:

- A large majority of respondents indicated an equal role played between the Government of Uganda the donors.
- However, some divergence of opinions exists: None of the Ugandan government officials responded that donors were the first to define policy measures and initiate discussions with their national counterparts; compared with just shy of 25% among DPs respondents and over 70% of the non-state actors respondents \were of the opinion that the donors were clearly in the lead in the process.

3.2.2 Ownership, coordination and predictability

Figure 2 Ownership, coordination and predictability



Main observations:

- Overall, opinions highlight a good level of ownership and coordination.
- But predictability, although not badly rated, was less well perceived.
- Interestingly, the government respondents were the least critical on predictability.

The qualitative elements listed below provide complementary information on the answers provided to questions related Ownership, coordination and predictability.

Table 2 Overview of qualitative information provided to the questions related to ownership, coordination and predictability

Target group	Overview of qualitative information
Government and other national institutions	Donors have to a large extent supported government initiatives by allocating resources according to government priorities. There are however some policies where there has been partnership discussions from the very beginning, especially in social sectors like health and education. Macro-fiscal policy was determined almost entirely by the Ministry of Finance and Bank of Uganda, in consultation with the IMF. Budget support donors had little influence on this aspect of policy. They may have had more influence on sectoral policies, especially in areas such as education, health and justice, law and order. Though Government provided leadership, the donors still had too many conditionalities. Some donors impose budget support cuts as individual decisions thereby straining the national budget. Funding would come late, but Government found a way of using reserve funds to stabilise the budget.
Development partners	Donor's willingness to have the country lead or co-lead on policy measures has declined over the years. Based on PRSP priorities which initially were conceived by donor-provided consultants. Later, local stakeholders increased their ownership. There is a tendency to agree among donors first and approach the GoU thereafter with a concrete proposal. However, these are normally drawn from GoU policies and intentions but not always. Donors are in the driver's seat. Initial ownership (up to 2005) was relatively strong, but then rapidly detoriated. GoU largely succeeded in making the operation a technocratic exercise. Example: WB PRSC missions virtually always met the President and senior ministers during missions up to 2005. After 2006 the main meetings would be lead at director level or occasionally by a Permanent Secretary.

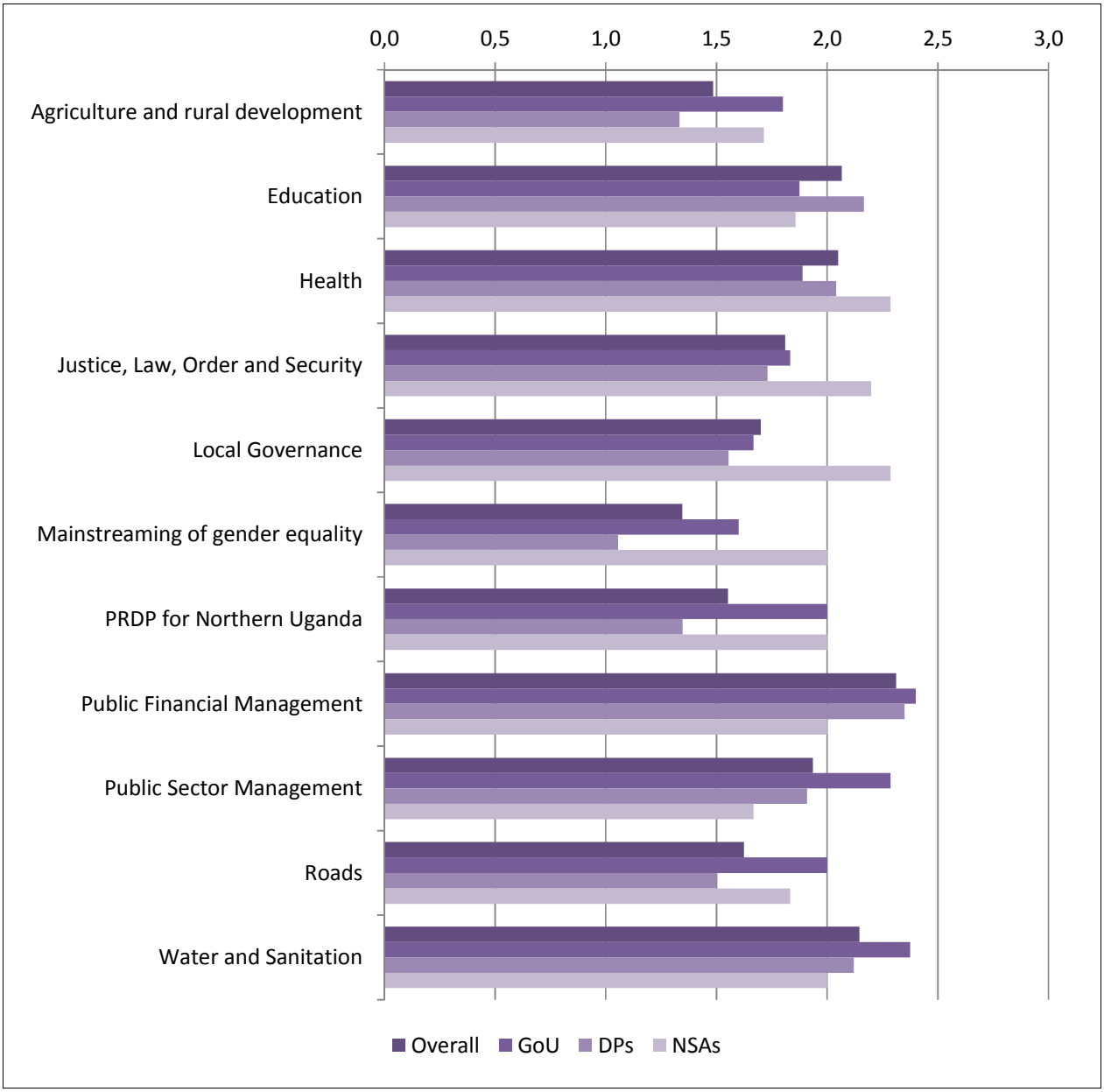
	Certain DPs felt bulldozed by the WB. Since 2008 there has been a major effort to coordinate BS between DPs. This has worked well, though final decisions on disbursement have remained with individual donors - sometimes sending mixed message to GoU Coordination came at a price in terms of slow responses and protracted coordination. The level of coordination increased from PAF to the JBSF/JAF time (2012/13), but due to political and governance concerns (e,g. after the introduction of the anti-homosexuality law) donors reacted variously and this increased divergence on the handling of BS in Uganda. Overkill I would argue. Too much time spent talking to each other and not enough time spent helping improve client capacity and performance.
Non-state actors and other resource persons	Most of the programs/operations are not owned by the citizens since they are rarely consulted during the initial stags Fairly okay through the JBSF however there is limited involvement of CSO. By the time CSOs are invited by the framework, many discussions will have taken place between Government and donors.

3.3 Capacity development and dialogue

3.3.1 Capacity development measures

Question: Based on your experience, to what extent have capacity development measures in the different sectors (either complementary or included in the budget support package) strengthened the effects of budget support?

Figure 3 Capacity development measures



Main observations:

- Overall mixed picture: CD in PFM, and to a lesser extent, WatSan, Education and Health scores well, while CD on Gender scores poorly.
- DP very unsatisfied with the effects of the actions in the context of the PRDP for Northern Uganda.
- CD measures in the Agriculture and Road sectors are also quite poorly scored.

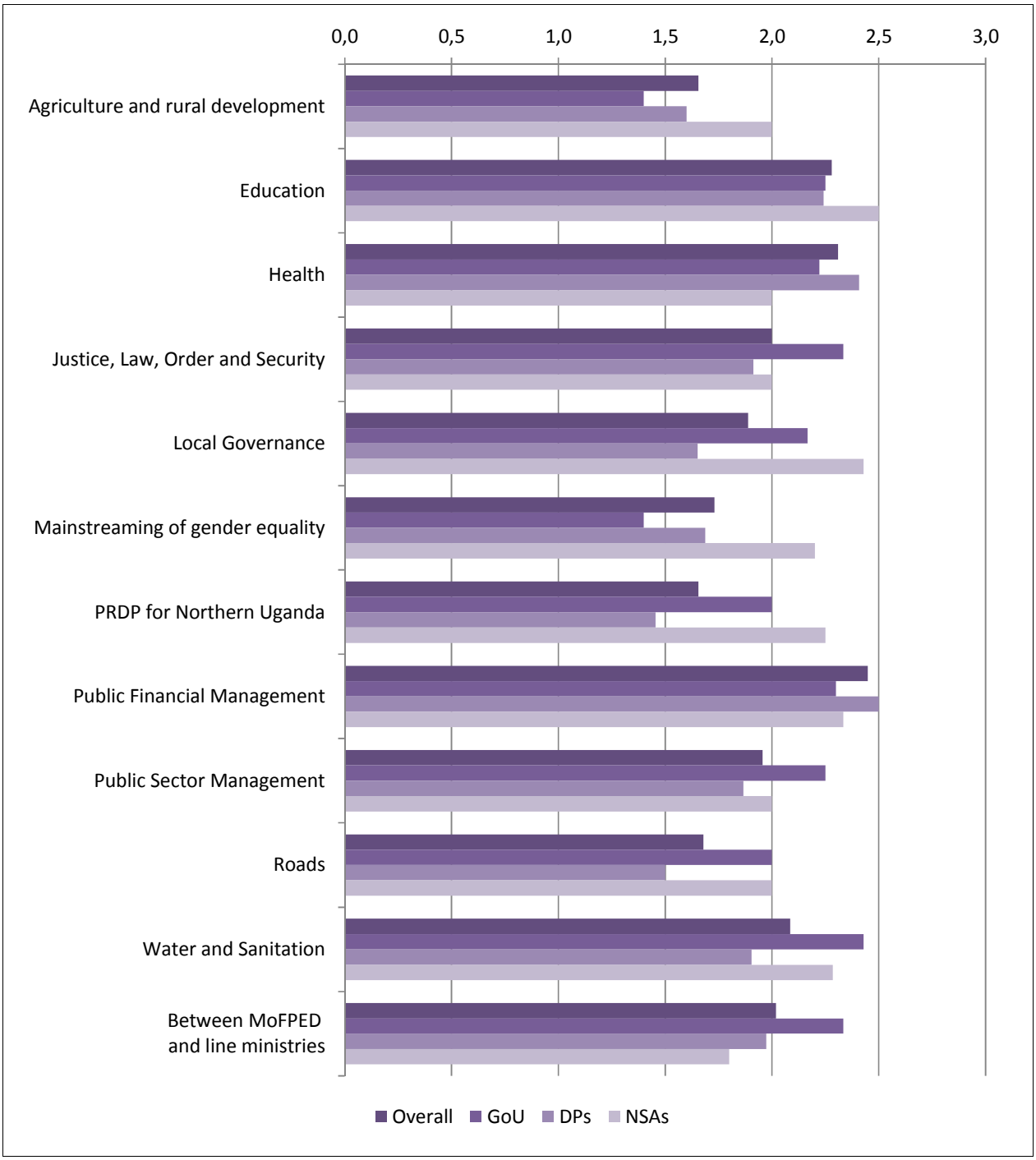
Table 3 Overview of qualitative information provided regarding capacity development

Target group	Overview of qualitative information
Government and other national institutions	With budget support all players in the sector have to participate in the planning and implementation process. Education sector had to have cross-sector dialogue with ministries of Finance, Local government as some services are completely decentralised, health, water, gender, NGOs, Private sector, Civil society etc. They would all participate in the sector review activities under the SWAP arrangement The role of Technical Support Units in providing capacity building, monitoring and ensuring value for money in conditional is second to none.
Development partners	I think project had done much better in capacity building in agriculture. However, the coordination was poor and the synergies could not be harvest for the overall sector work. Partly, agriculture is private sector led, including the smallholders as actors. Their interests in the process in my view did not impact on the changes harshened in the budget process. Northern Uganda received improved coordination but hardly because of the budget process but the donor groups that actually drove the issues on the north and made it in the case of PRSC, a condition for certain policy reform. Unfortunately, even those action points were not budgeted for and were never operationalised. A case is the IDP policy that was not implemented and the Amnesty Law that ended as a direct funding from donors Capacity development did have a positive effect but the lack of ownership of the reforms undermined the sustainability - particularly institutional - of such impact. There was a general lack of funding to build local institutions and capacity. Part of general budget support should have been set aside as TA funds. TA should be provided with a clear mechanism for transfer of knowledge and not for mainly task implementation purpose. Donors need to be more strategic, realistic and selective in the way they engage with GoU and specifically on governance & human rights related issues. Capacity development is essential but has got to be coordinated and no inform of workshops- which don't necessary pass on the requisite skills. there is need for a holistic capacity needs assessment in government and should be holistically implemented.
Non-state actors and other resource persons	There is in general a poor link between capacity development (broadly understood) and budget support. Most capacity development has not gone beyond placement of advisers and training of staff. Stronger involvement of CD organisations (including OD/ID support) would benefit the sectors.

3.3.2 Sector and cross-sectoral dialogue

Question: Based on your experience, to what extent have budget support operations helped to enhance ***sector and cross-sectoral dialogue*** *in Uganda?*

Figure 4 Dialogue



Main observations:

- Effects of BS on dialogue in PFM, Health, Education and WatSan perceived as positive.
- Effects of BS on dialogue between MoFPED and line ministries well rated, especially by government officials.
- Like for CD measures, lowest scores relate to Agriculture, Gender, Roads sectors and PRDP for Northern Uganda.

Table 4 Overview of qualitative information provided related to dialogue

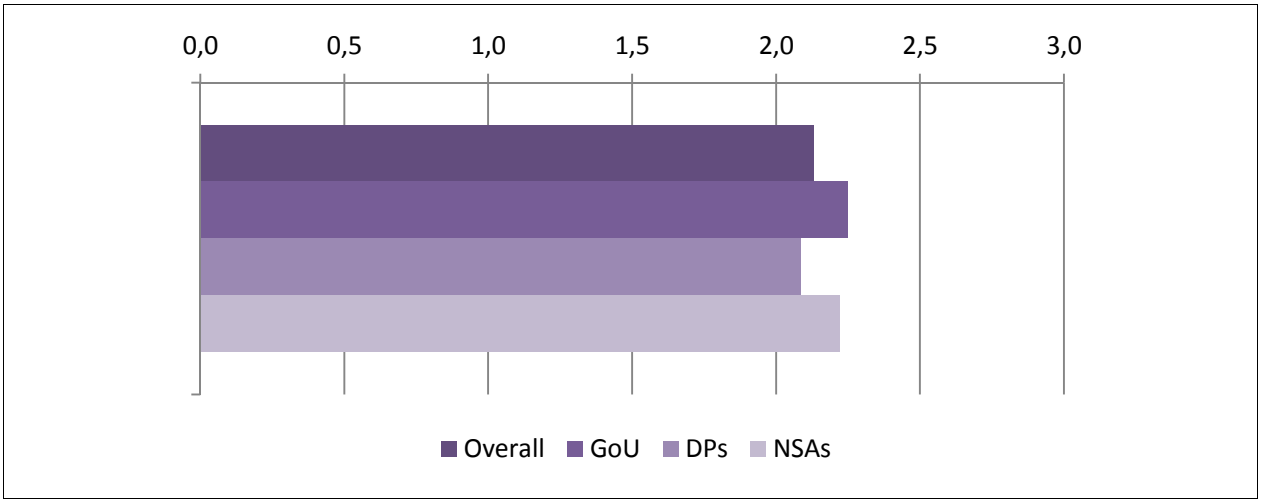
Target group	Overview of qualitative information
Government and other national institutions	The power and influence of the Health Policy Advisory Committee in the health sector drove the initial success of SWAps and PAF operations but it power slowly got eroded by say the Global Fund Country Coordination Mechanism The cross sectoral PMA totally failed to deliver cross-government coordination. Conceptually ambitious, in practice it was impossible to deliver. Budget support has not helped much in relation to cross sectoral dialogue. Some improvement was realized in education sector as dialogue with Ministry of Local Government and Ministry of Public Service improved. But this has not happened for the health sector. In the JLOS Sector all arms are moving in the same direction The power relations between bilaterals and Global Health Initiatives including PEPFER, Global Fund, GAVI, Stop Malaria etc shifted in favour of the latter who had had no experience in the development of the budget support process and completely ignored to an apparent ineffectiveness.
Development partners	A lot of dialogue was entertained - with donors but also, I believe, among government institutions - as a by-product of budget support - to identify, formulate and monitor conditions. The impact of such dialogue is less clear. Budget support resulted in a greater commitment and quality of dialogue on PFM issues, especially after 2007 with the launch of FINMAP and JBSF. The influence of performance measures on sector dialogue declined from 2011/12, as the link with releases became less clear. The cross-sectoral aspect was the most disappointing The work of JLOS was always the stand out success of a sector working together and making sensible decisions. A strong secretariat was key. Dialogue depends very much on the relationship between the individuals involved. Through the rotation of DPs but also regular rotation of Ministers and Permanent Secretaries (in some Ministries) there is constant disruption of dialogue as institutional memory is reduced. Thus, the repetition of similar discussions can lead to fatigue on both sides. DP quality is a key issue. Whilst many DPs had reasonable technical quality, few had strong policy/political understanding. A few big DPs (mainly the WB) had strong internal inconsistencies and disagreements. The result tended to be “lowest common denominator”.
Non-state actors and other resource persons	Despite capacity building being a key component of budget support, cross dialogue is still limited. For example Agriculture sector failed to implement the irrigation project from ADF due to lack of engineers yet there we enough engineers in the water sector who would have helped from the start

3.4 Policy processes and implementation

3.4.1 Quality of macroeconomic and fiscal management

*Question: To what extent has budget support contributed to improvements in the **quality of macroeconomic and fiscal management** in Uganda?*

Figure 5 Macroeconomic and fiscal management



Main observations:

- Agreement by all actors that budget support has strengthened fiscal and macroeconomic management.

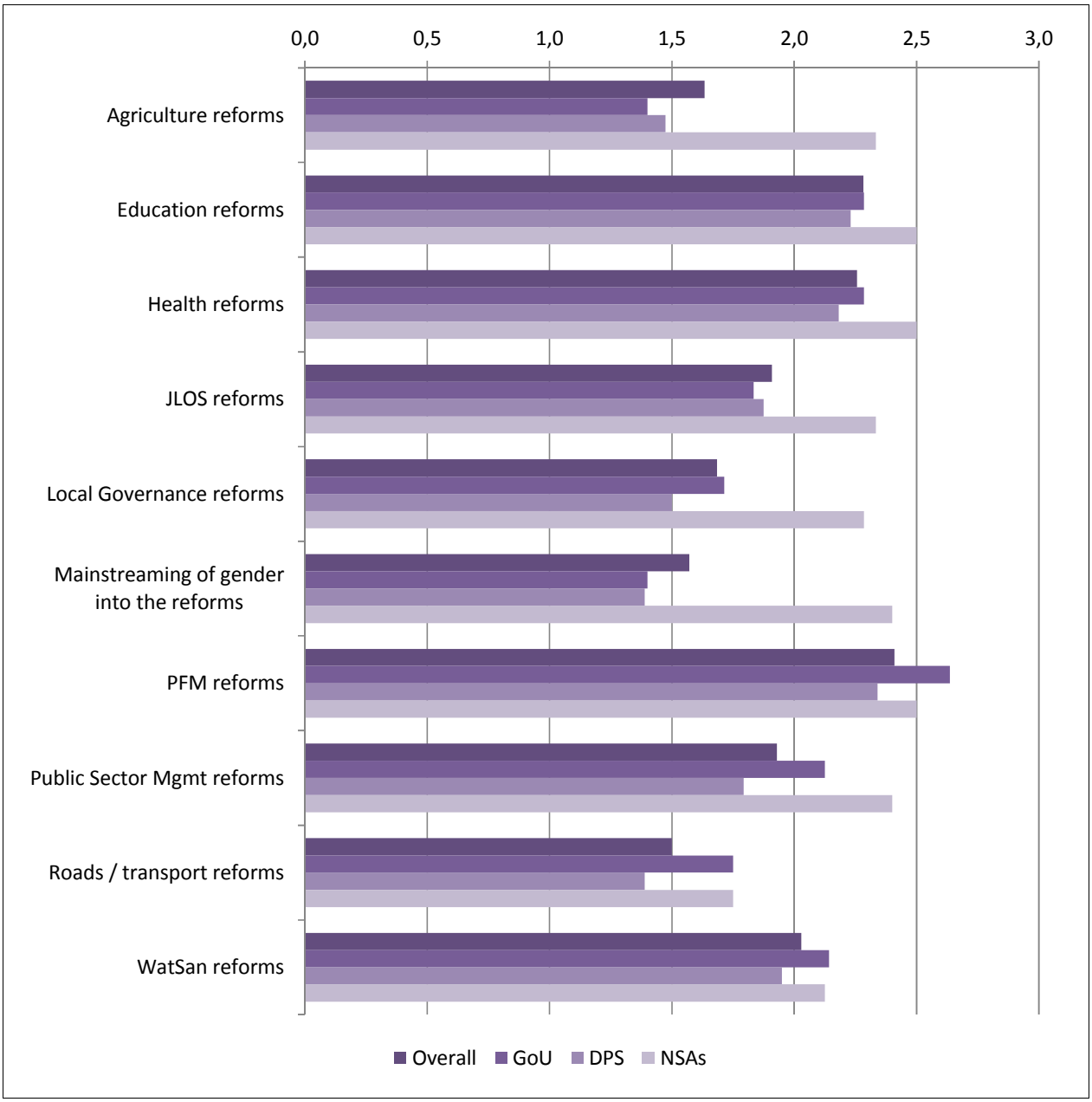
Table 5 Overview of qualitative information provided related to macroeconomic and fiscal management

Target group	Overview of qualitative information
Government officials	General contribution meant exposure of the entire budget to the Donors and therefore greater transparency in economic policies, budgeting and budget management.
Development partners	Uganda opted long ago for prudent macro policies .Budget support's role sustaining them was limited (but not really needed). Notwithstanding some of the view that the macroeconomic indicators are doctored, I think there has been availability of information for MoFPED and the central bank to act on inflation and other fiscal matters responsibly. it lead to various consequences, like better owned and improved M&E, better household surveys and data, predictable planning cycles finance-wise and on the implementing side, more transparency. Improved systems and predictability yes. Management of arrears, pensions, using reserves to buy jets etc no The capacity level in MOFPED was high. However, there were "external pressures" (President's Office, military) that interfered in the budgeting and expenditure process. Budget support somewhat curbed these interferences.
Non state actors	The exception are election years when planned/unplanned spending goes high

3.4.2 Effects on policy formulation and implementation of reforms

*Question: Based on your experience, to what extent has the budget support dialogue helped to improve the **policy formulation and implementation of reforms** in Uganda?*

Figure 6 Policy formulation and implementation



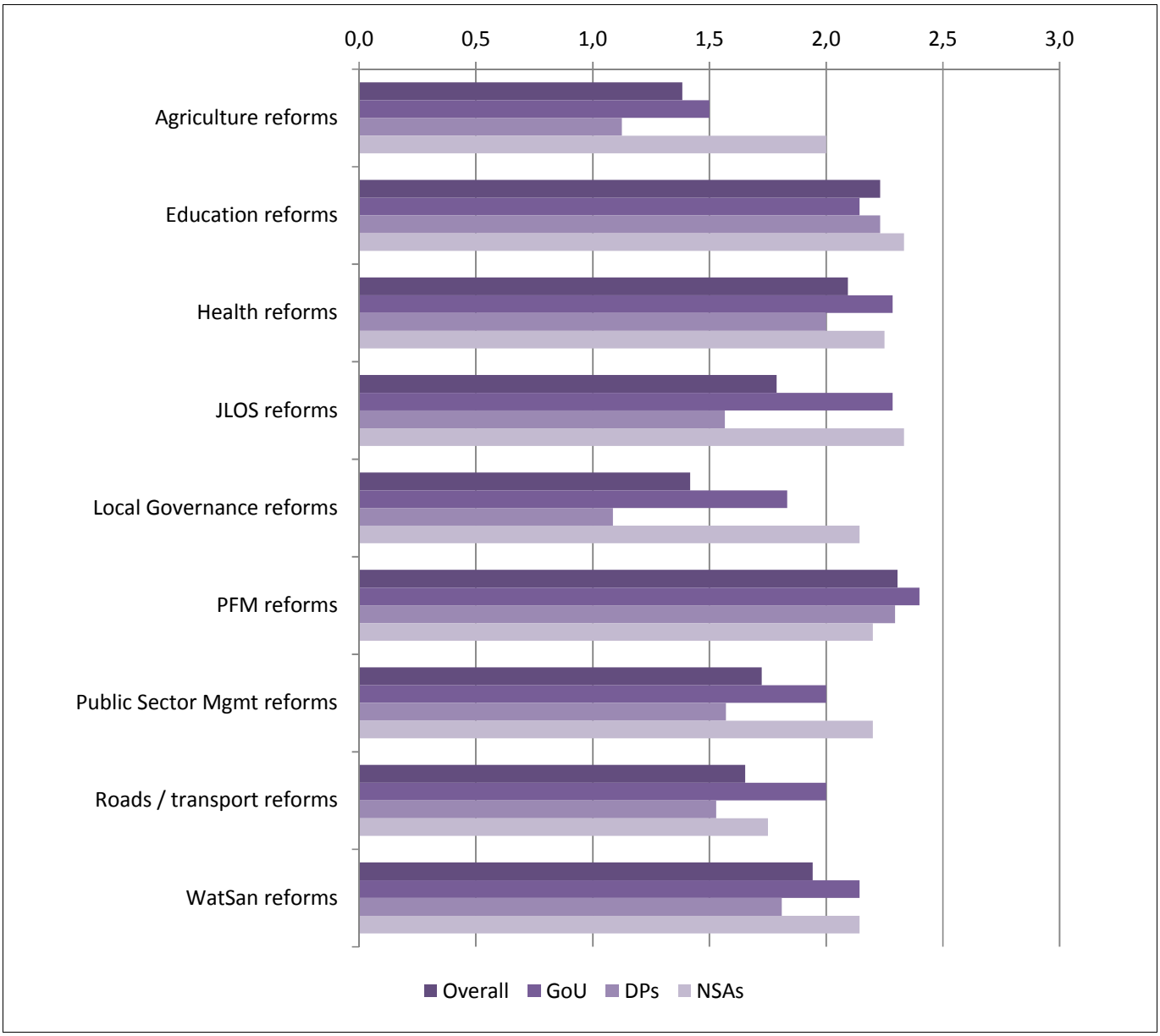
Main observations:

- PFM, Education, Health and to a lesser extent WatSan score high.
- GoU gives slightly more positive appreciations than development partners.
- Non state actors rate all sectors positively, except for roads and transport reforms

3.4.3 Effects on progress in reform processes

*Question:To what extent did the following **reforms** supported by budget support advance during the period you were involved?*

Figure 7 Reform progress



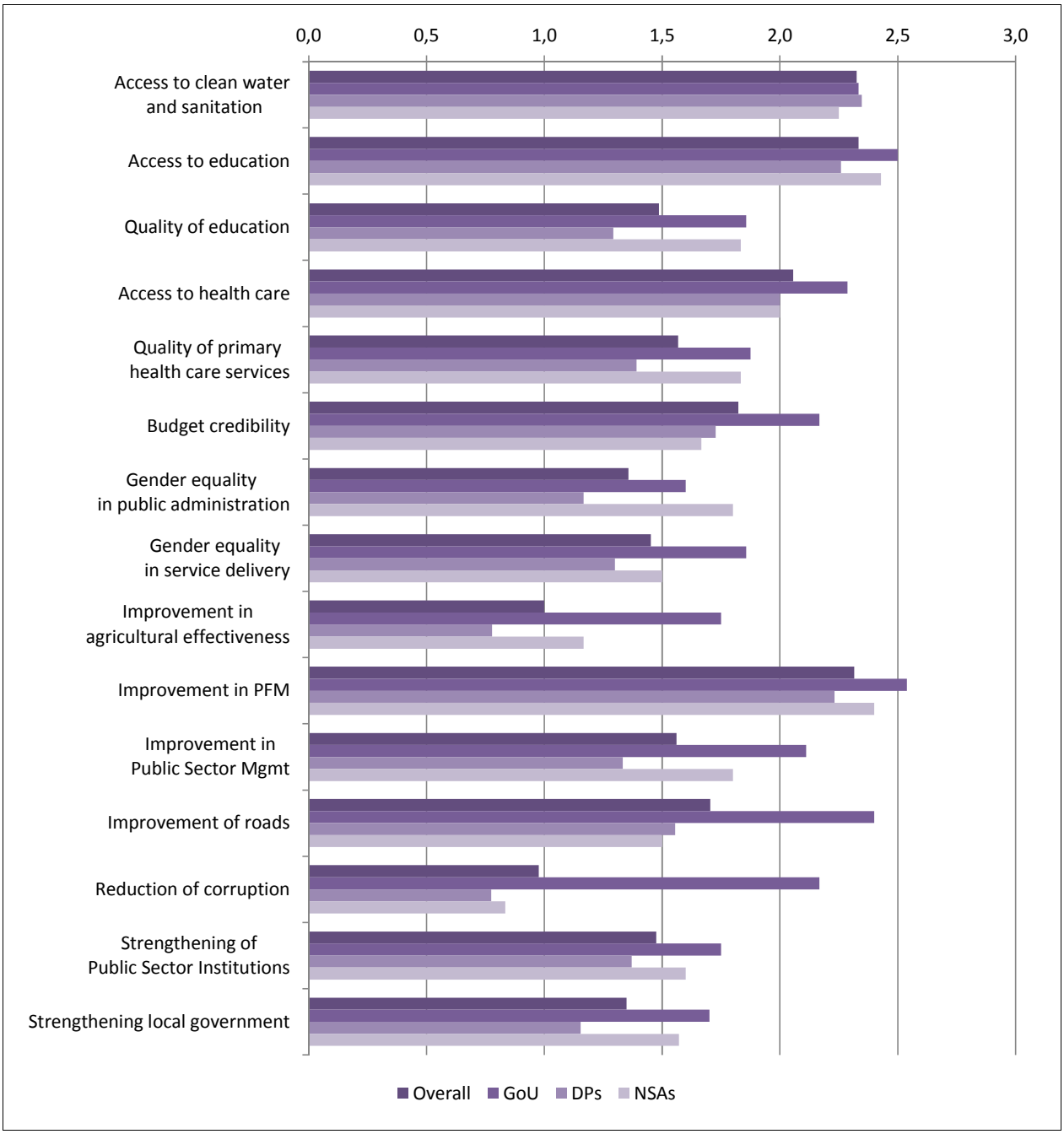
Main observations:

- Responses indicate that reforms in PFM, Education and Health have advanced most-
- There are different opinions when it comes to JLOS and local governance sectors. Government officials and Non-state actors rate reform progress in these sectors positively while development partners have a more negative view.

3.4.4 Effects on induced outputs and development outcomes

*Question: To what extent has there been **progress** linked to the reforms implemented in the past ten years in the following fields?*

Figure 8 Outputs and development outcomes



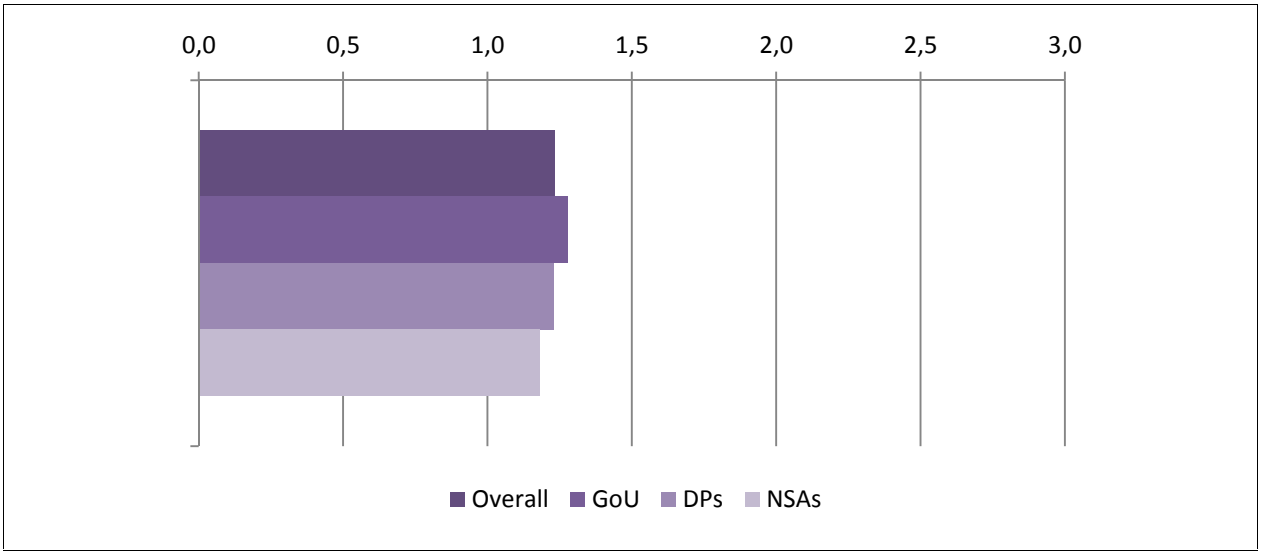
Main observations:

- Strong improvement in PFM, but budget credibility is rated more modestly
- Access to services has improved in many sectors (WatSan, Education, Health), but the quality has not (Education, Health)
- Improvements in agriculture rated very poorly, especially by development partners
- Diverging opinions with regards to corruption: According to government officials corruption has been reduced, development partners and non-state actors do not agree.

3.4.5 Effects on monitoring and evaluation

*Question: To what extent have the budget support operations in Uganda helped government agencies and donors **monitor and evaluate the progress toward achieving policy goals**?*

Figure 9 Monitoring and Evaluation



Main observations:

- All actors rate BS effect on M&E quite poorly.

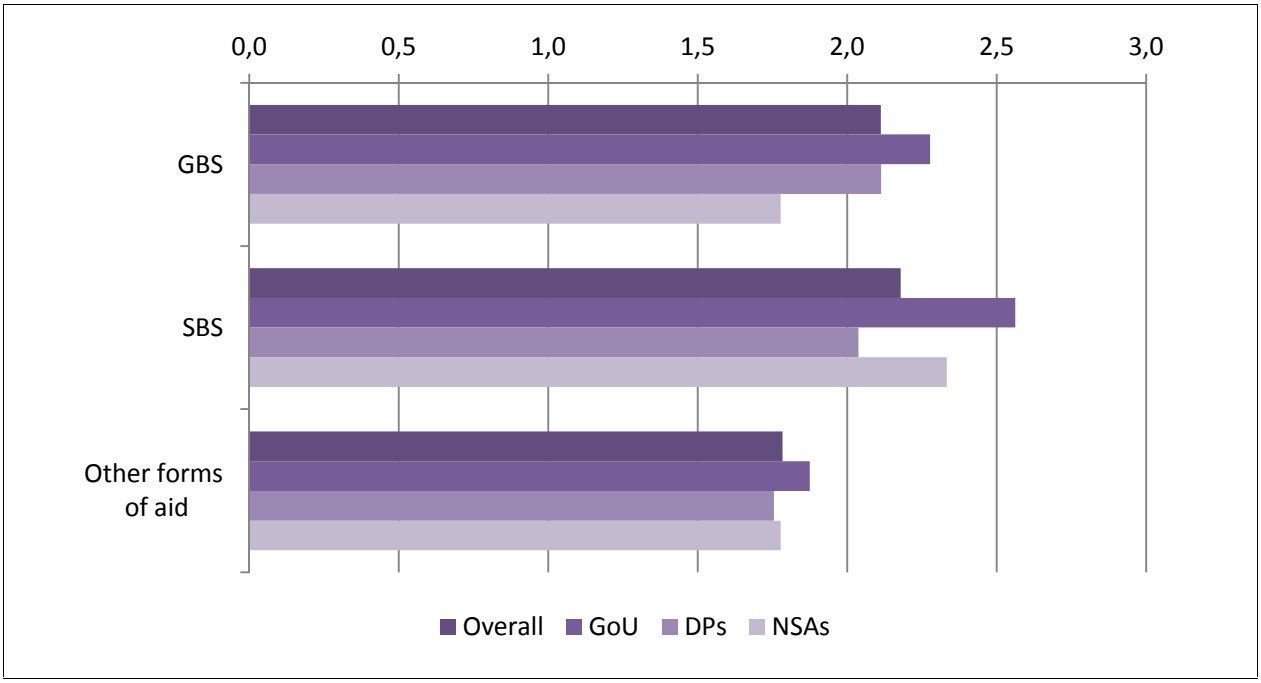
Table 6 Overview of qualitative information provided related to M&E

Target group	Overview of qualitative information
Government officials	The expenditure tracking surveys helped a great deal in ensuring improved reach of resources. There are however capacity challenges as well as coordination of monitoring as well as comprehensive data and information on the indicators. Low budget allocations in the area of monitoring and data collection processes. The breakdown in trust between stakeholders is a big challenge
Development partners	Some M&E was done but it was not sufficiently embedded in the policy process to have much impact. Budget support encouraged the development of performance monitoring systems in Government. However, the JAF has come to be seen as a separate donor monitoring tool, not sufficiently aligned with GoU priorities heavy focus on a small number of central actors in OPM; lack of ownership across sectors; overburdened and overcomplicated mechanisms. Lack of cross-sectoral linkages, weak monitoring by line ministries Challenges: Linking monitoring results to corrective actions. Success is the continuous monitoring of progress through the performance matrixes at sector and JBSF level. Challenges are availability of reliable data in some sectors. In addition, target setting is difficult if not based on a proper analysis of how reforms planned will affect outcomes.

3.4.6 Aid delivery methods

*Question: Overall, based on your experience, to what extent have **general budget support, sectoral budget support and other forms of aid** contributed to policy reform and implementation in Uganda?*

Figure 10 BS compared to other forms of aid



Main observations:

- BS, in particular SBS, rated more positively with than other forms of aid
- Ugandan government officials and non-state actors rate sector budget support especially high.

Table 7 Overview of qualitative information provided related to aid delivery methods

Target group	Overview of qualitative information
Government officials	Sector earmarked budget support has been the most effective, because of direct engagement between the sector leadership and the donors. General budget support seems to be at a very much high level and is more influenced by the political events rather than technical aspects. Sector budget support is more targeted to priorities and therefore more useful. Other forms of aid tend to be small, fragmented and therefore ineffective.
Development partners	Thinking in terms of counterfactual, budget support probably helped to some extent to maintain the quality of management by providing leverage to the administration vis-à-vis political leadership. Budget support had the advantage of focusing on policy reforms rather than ring-fencing development that was unsustainable once the specific measures were instituted. The sector budget support model gave opportunities for DPs to enter into detailed dialogue with the government on all policy-related matters. It is an excellent aid modality from an accountability and ownership perspective. Especially GBS strengthened dialogue at policy making level, this was supplemented by donor groups at sector level.
Non state actors	GBS is difficult to follow and measure yet sector support is easy to measure and it would general the direct impact needed

3.5 Lessons learned

*Question: What are, in your view, the main **lessons learned** from the implementation of budget support in Uganda that should be taken into account for future budget support operations?*

The table below provides some of the main lessons learned highlighted by the respondents.

Table 8 Overview of qualitative information provided to the question related to main lessons learned

Target group	Overview of qualitative information
Government and other national institutions	BS = an agreement on highest level between GoU and DPs on shared expectations and commitment to disbursement indicators as well as overall policy reform goals. The building of trust for joint policy development requires several years of patience but is easily lost through impatience for results arising from parallel competing initiatives. Policy and programming failed to take into account shifts in domestic political drivers. We need to shift to sector budget support (comment by Line Ministry official) Sector targeted budget support is more effective than general budget support (comment by MoFPED official)
Development partners	Be more focused and realistic, grounded in political economy. Keep political economy issues at the heart of budget support operations. Budget support should not be linked to political inclinations so that programmes are not derailed, e.g., support was suspended due to the anti-gay bill. GBS has a structural weakness because it is vulnerable to political pressures from bilateral HQs It is difficult to defend budget support when the government makes the "wrong" priorities, even if other bilateral support also supports the same government. Credibility of actors and respect of the system is key. Constant dialogue with government is important to establish trust. Critical to have strong and inclusive budget planning monitoring and assessment. Build capacity in the Ministry of Finance but also sector ministries to strategize and implement. Government reforms are constrained by inadequate institutional mandate from top leadership to change how things are done. Top-down and centralised decision-making not enabling technical innovations and organisational development. "Post-stabilisation" countries such as Uganda increasingly have a variety of means to accommodate a degree of volatility in donor budget support disbursements. In this context, we risk overstating the advantages of in-year predictability, and under-appreciating the political costs of not responding to events. Rather, it is the long-term nature of the predictability of budget support commitments that is more important in encouraging countries such as Uganda to embark on more ambitious spending programmes to accelerate progress towards the MDGs (and in overcoming potential macroeconomic concerns). Having a safety valve to release some pressure in the short term may be the best means of maintaining support in the long term – the focus of a graduated response is not so much to influence change, as to sustain credibility and public support. The balance to be struck is one that limits the degree of unpredictability without completely removing it, or locking donors into patterns of aid allocation that risk being excessively inefficient. Condition budget support directly and firmly to increases in domestic revenue mobilization Support increase in domestic resources mobilisation (address corruption & tax evasion); support strengthening of national institutions: support strengthening of relations between development cooperation, the private sector & civil society; and get indicators & goals at country level established according to the country's own priorities.

	One has to extend the dialogue beyond the Ministry of Finance. Buy-in is necessary from sectoral ministries too if there is to be broad ownership. Critical to have sector wide reviews that are credible inclusive and challenging Donors need to be more realistic as to what can be achieved with budget support A mix of instruments (BS; baskets, projects) has proven best way to go, as we already did in the past The adoption of a common performance assessment framework (PAF) and common review mechanism is very important for improving effectiveness of budget support and our dialogue with government. But achieving identical donor responses is virtually impossible and probably undesirable anyway. Adapting to political economy constraints is critical, especially if one wants to avoid formal actions that end up being meaningless. Donors should improve their performance in respect of the predictability of aid and use of country systems The shifting focus of PRSC operations is particularly challenging for gender integration. Capacity building to be more closely linked to policy reform dialogue. Need to involve other stakeholders not part of the budget support in high-level policy dialogue Budget support should be accompanied by a TA operation that supports the implementation of the proposed and agreed reforms. A longer-term approach to capacity development has to be recognised. Should there be reasons for suspension of budget support, this should happen gradually, with less drama, and in a phased manner to avoid causing unnecessary disruptions to projects and programmes under implementation. The bigger players also need to acknowledge advantages of smaller players (close involvement in sectors, long-term presence in country and build-up trust)
Non-state actors and other resource persons	CSOs need to be empowered to monitor implementation of programmes by Government. Budget support needs to have clearly articulated strategies for managing the impact of corruption.

Annex 9: Benchmarking Gender Gaps in Uganda

1 Introduction

This annex provides an overview of some key constitutional, legal, institutional, and economic factors affecting gender equality (equality before the law) and gender equity (equitable economic and social outcome) in Uganda. The focus is on (i) presenting in one place an updated picture of these factors in Uganda based on the latest data available and, in particular, (ii) *benchmarking* Uganda against relevant comparators. Three main benchmarks are used in comparative statistics, when available: averages for Sub-Saharan Africa and Low-Income Countries, and neighbouring countries that are at broadly at a similar level of development and demographic transition (Kenya, Tanzania, Rwanda). It is hoped that this approach will provide a more nuanced picture of the substantial gender gaps and issues in Uganda, beyond the basic picture provided by basic gender parity indicators (e.g., gross enrolment rates, etc.).

In a nutshell, Uganda has a substantial legal framework for greater equality of women, but its implementation has been limited and there are major gender gaps in many areas of society. Gender mainstreaming in the government has remained largely at the level of rhetoric. Moreover, many and deep gender gaps prevent women from taking advantage of economic opportunities, such as the rights to inheritance, treatment of married women, access to finance etc. In education, there were gains in the enrolment rates over time, but gender gaps in literacy, dropout rates, and attainment are striking. This is reinforced by cultural factors such as adolescent marriages and apparently no effective policy towards birth control resulting in the exceptionally high fertility rate. Maternal mortality has declined reflecting some improvements in basic health services, but it remains high. Finally, regarding access to economic opportunities in labour and finance markets, data suggest that women's labour force participation is high, but this reflects the prevalence of women workers in the informal, rural, subsistence economy. Opportunities for women are far fewer in other sectors of the economy requiring specialized skills and higher education. Women are also clearly disadvantaged in the access to finance as reflected in access and gender gap statistics.

2 Constitutional environment

The 1995 Uganda Constitution recognized equality of men and women and made provisions for ensuring women's participation in decision making at all levels of Government. The number of women in the Uganda parliament increased from 18 percent in 2000 to 35 percent in 2012. In 2009, Parliament passed three landmark laws: (1) a 2010 law on Domestic Violence and the 2011 Domestic Violence regulations; (2) the anti-Female Genital Mutilation Act of 2010; and (3) the anti-human trafficking law passed in 2009. Progress in implementation of these laws has however been limited. The Marriage and Divorce Bill has been a source of contention for more than thirty years. Parliament has repeatedly resisted this Bill, which has the potential to fundamentally reform power relations between husbands and wives.

A Ministry of Gender, Labour and Social Development (MGLSD) was set up in 1989, with a mandate to establish mechanisms for gender mainstreaming at different levels of national and subnational government. Under the MGSLD, the National Gender Policy was developed in 1997, and updated in 2007. The Act has provided guidance for nationwide gender mainstreaming across key sector Ministries, including at the local level. The Local Government Act 1997 provided for affirmative action for women's representation at various local government structures at lower level. (Gibson et al.) A mid-term review of the Government's National Development Plan (NDP) finds that Women's participation at lower government levels has largely been ineffective due to low education levels of women and socio-cultural and economic constraints faced by women. (Government of Uganda 2013)

3 Access to institutions and rights

Overall, Uganda performance is comparable to its regional peers regarding constitutional rights and quotas (Table 1), but there are important gender gaps in terms of the rights of married women and access to inheritance property rights. The quotas for women in parliament are only a little behind those of Tanzania, and Kenya. While there are no legal quotas for women on corporate boards, this is not the case in any of the comparator countries. Regarding rights of women, unmarried woman can apply for a passport the same way as a man. This is not the case for married women, however. In Tanzania and Kenya, by contrast, married women continue to be treated the same way as men. In Rwanda, neither married nor unmarried women can apply the same way men can. Regarding other indicators, Uganda performs well and on par with Tanzania and Kenya. Rwanda appears to be much less equitable. Regarding division of

labour within marriage Uganda also performs well and better than Rwanda, but protecting a wife's interest is lagging as the law does not provide for valuation of nonmonetary contributions during marriage, in contrast to Tanzania and Kenya. Men and women do, however, have equal property rights. Inheritance laws discriminate against women. Female and male surviving spouses as well as sons and daughters do not have equal inheritance rights to property.

Table 1: Uganda vs. Comparator Countries: Women, business, and the law

Accessing institutions	*Uganda*	*Tanzania*	*Kenya*	*Rwanda*
Constitutional rights				
1. Is there a non-discrimination clause in the constitution?	Yes	Yes	Yes	Yes
2. If there is a non-discrimination clause in the constitution, does it explicitly mention gender?	Yes	Yes	Yes	Yes
3. Does the constitution guarantee equality before the law?	Yes	Yes	Yes	Yes
4. Is personal law recognized as valid source of law under the constitution?	Yes	No	Yes	No
5. If so, is it invalid if it violates constitutional provisions on non-discrimination or equality?	Yes	n/a	No	n/a
Quotas				
6. What are the legal quotas for women on corporate boards?	n/a	n/a	n/a	n/a
7. What are the legal quotas for women in parliament?	29%	30%	33%	n/a
8. What are the legal quotas for women in local government?	33%	n/a	33%	n/a
Rights of women (unmarried, married)				
9. Can a woman apply for a passport in the same way as a man?	Yes, No	Yes, Yes	Yes, Yes	No, No
10. Can a woman apply for a national ID card in the same way as a man?	n/a, n/a	n/a, n/a	Yes, Yes	No, No
11. Can a woman travel outside the country in the same way as a man?	Yes, Yes	Yes, Yes	Yes, Yes	No, No
12. Can a woman travel outside her home in the same way as a man?	Yes, Yes	Yes, Yes	Yes, Yes	Yes, Yes
13. Can a woman get a job or pursue a trade or profession in the same way as a man?	Yes, Yes	Yes, Yes	Yes, Yes	Yes, Yes
14. Can a woman sign a contract in the same way as a man?	Yes, Yes	Yes, Yes	Yes, Yes	Yes, Yes
15. Can a woman register a business in the same way as a man?	Yes, Yes	Yes, Yes	Yes, Yes	Yes, Yes
16. Can a woman open a bank account in the same way as a man?	Yes, Yes	Yes, Yes	Yes, Yes	Yes, Yes
17. Can a woman choose where to live in the same way as a man?	Yes, Yes	Yes, Yes	Yes, Yes	Yes, No
18. Can a woman confer citizenship on her children in the same way as a man?	Yes, Yes	Yes, Yes	Yes, Yes	No, No
19. Can a woman be "head of household" or "head of family" in the same way as a man?	n/a, n/a	n/a, n/a	n/a, n/a	No, No
Division of responsibility within marriage				
20. Can a woman convey citizenship to her non-national spouse in the same way as a man?	Yes	No	Yes	No

Accessing institutions	*Uganda*	*Tanzania*	*Kenya*	*Rwanda*
21. Are married women required by law to obey their husbands?	No	No	No	No
22. Do married couples jointly share legal responsibility for financially maintaining the family's expenses?	Yes	No	Yes	No
Using property				
Marital property regime				
23. What is the default marital property regime?	Sep of property	Sep of property	Sep of property	Sep of property
24. Who legally administers property during marriage?	Original owner	Original owner	Original owner	Original owner
Protecting a wife's interests				
25. If it is the husband, does he need his wife's consent for major transactions	n/a	n/a	n/a	n/a
26. Are there special provisions governing the marital home?	Yes	Yes	Yes	No
27. Does the law provide for valuation of nonmonetary contributions during marriage?	No	Yes	Yes	No
Property rights (unmarried, married)				
28. Do men and women have equal ownership rights to property?	Yes, Yes	Yes, Yes	Yes, Yes	Yes, Yes
Inheritance rights				
29. Do sons and daughters have equal inheritance rights to property?	No	No	Yes	No
30. Do female and male surviving spouses have equal inheritance rights to property?	No	No	Yes	No
Going to court				
Equality of access				
31. Does the law recognize customary courts?	Yes	Yes	Yes	No
32. Does the law recognize personal law courts?	No	Yes	Yes	Yes
33. Does a woman's testimony carry the same evidentiary weight in court as a man's?	Yes	Yes	Yes	No
Efficiency of procedure				
34. Is there a small claims court or a fast track procedure for small claims?	Yes	No	Yes	Yes
35. If so, what is the maximum amount for a small claim (as a percentage of income per capita)?	897%	n/a	70%	13%
Judicial representation				
36. How many justices are on the constitutional court?	7	15	7	n/a
37. Of those, how many are women?	3	4	2	n/a
38. Is the Chief Justice a woman?	No	No	No	n/a

Source: World Bank 2014, Adapted by the IEG team.

4 Gender gaps in education

Uganda's overall educational quality measured by attainment is low compared to its peers. While there appears to be gender parity in enrolment, drop-out rates for girls are significantly higher, which is reflected in completion rates. Of women aged 25 and older 37 percent completed primary schooling, which drops sharply to 23 percent for lower secondary schooling and an extremely low 2 percent for tertiary education.

While these figures are significantly worse in comparison to Kenya, the apparent gender gap is also significantly wider – especially regarding women with completed primary education (see table 2). A more

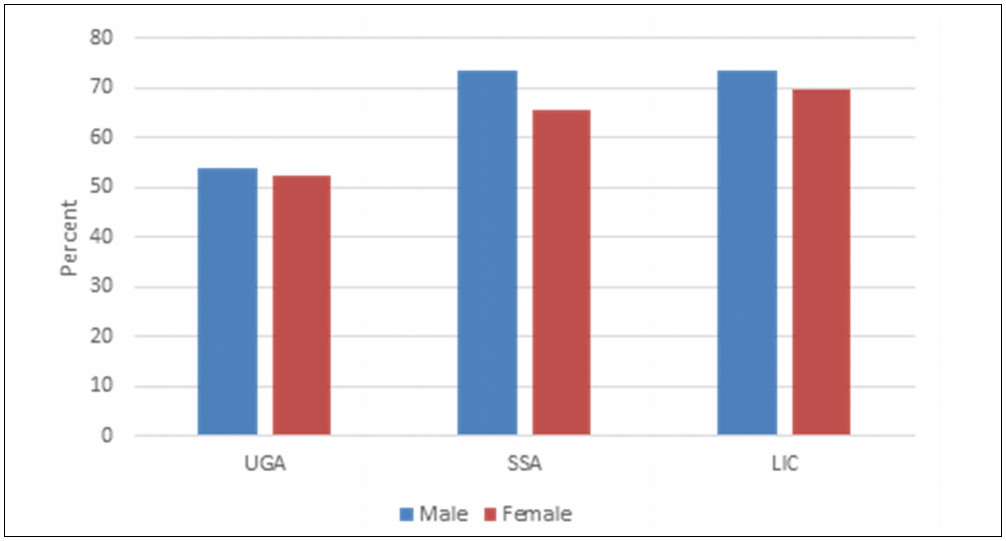
nuanced picture emerges from the completion of primary education as a share of the relevant age group, which currently is about 50 percent for both girls and boys. While this metric shows a major improvement in recent years, Uganda lags significantly below Sub-Saharan Africa (SSA) and Low Income Country (LIC) average (see figure 3). Gibson et al (2014) note that gender parity prevails in secondary education, however no data were available to confirm these findings. Tertiary education is heavily biased against women. Enrolment for every 100 men is matched by only 26.9 women.

While the literacy rate for males and females in Uganda is higher than its peers and substantially so compared to the region, a significant gap between male and female remains. While 65 percent of women are estimated to be literate, male literacy is estimated 18 percentage points higher. Further details on completion rates, enrolment ratios, and literacy, are provided in table 2.

Table 2: Uganda vs. Regional Comparators: Core education gender indicators, by country (latest year available)

Indicator	UGA	TZA	KEN	RWA	SSA
Educational attainment, at least completed primary, population 25+ years, female (%) (cumulative)	36.6	n/a	46.9	n/a	n/a
Educational attainment, at least completed primary, population 25+ years, male (%) (cumulative)	50.4	n/a	53.0	n/a	n/a
Educational attainment, at least completed lower secondary, population 25+, female (%) (cumulative)	22.9	n/a	25.3	n/a	n/a
Educational attainment, at least completed lower secondary, population 25+, male (%) (cumulative)	33.5	n/a	31.4	n/a	n/a
Educational attainment, completed tertiary, population 25+, female (%) (cumulative)	1.9	n/a	n/a	n/a	n/a
Educational attainment, completed tertiary, population 25+, male (%) (cumulative)	3.8	n/a	n/a	n/a	n/a
Ratio of female to male primary enrollment (%)	101.5	103.2	n/a	102.0	92.1
Ratio of female to male secondary enrollment (%)	n/a	87.5	n/a	106.5	83.7
Ratio of female to male tertiary enrollment (%)	26.9	54.7	n/a	75.7	64.1
Literacy rate, adult female (% of females ages 15 and above)	64.6	60.8	n/a	61.5	50.9
Literacy rate, adult male (% of males ages 15 and above)	82.6	75.4	n/a	71.1	68.1

Figure 1: Uganda vs. Sub-Saharan Africa and Low-Income Country Averages: Primary completion rate, female, male (% of relevant age group)



Source: Gender statistics, World Bank.

5 Gender, fertility, and HIV AIDS

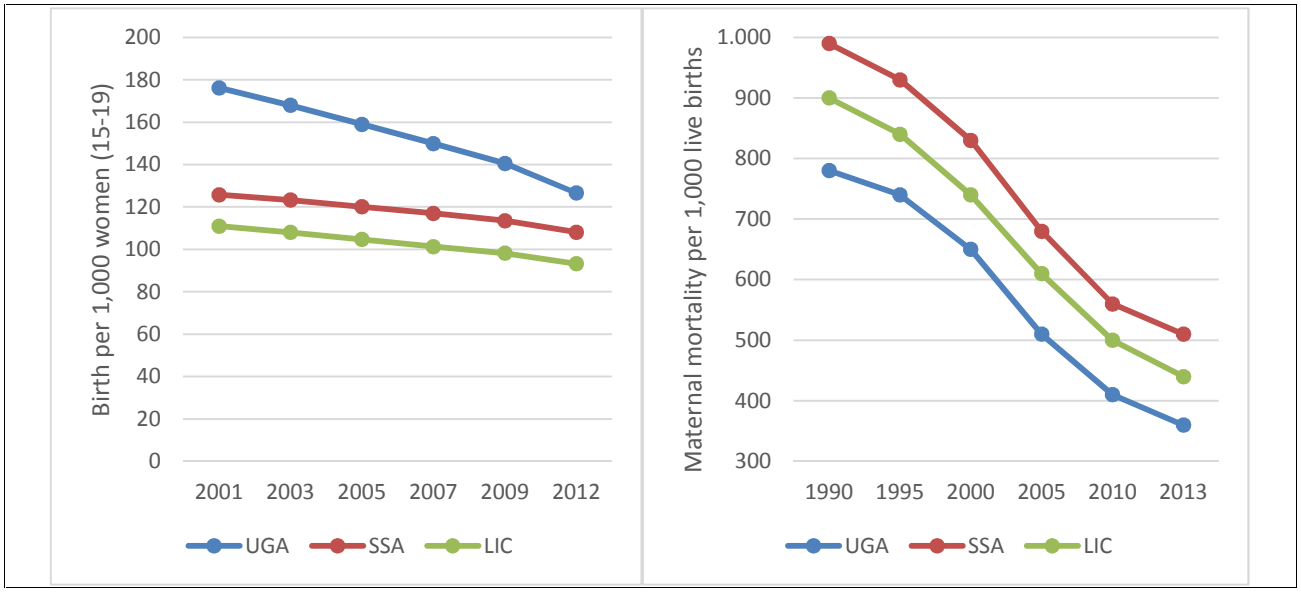
Uganda has one of the highest fertility rates in the world. The total fertility rate in 2014 stands at 5.96, which is significantly higher than the SSA average of 5.11 and also higher than that of Tanzania, Rwanda,

and Kenya which have 5.28, 4.61, and 4.45 respectively. This is a function of the majority of the population living in rural areas with high incidence of poverty, illiteracy, and limited educational attainment and basic health and education services as well as no apparent policy towards fertility/population control. High dropout rates for girls and very high rates of adolescent marriage also reflect cultural factors.

Some progress, has been made regarding adolescent fertility (women aged 15-19) but at 126.6 per 1,000 women, it, too, remains well above SSA and LIC average. The SSA average stands at 108 in comparison. Rwanda, by contrast, has made significant inroads into adolescent fertility rate, which is four times lower (33.6). The share of women first married by age 18 is also significantly higher than that of its regional peers, and stands at almost 40 percent.

Significant inroads have been made in maternal mortality. The ratio per 100,000 is estimated significantly lower than the SSA and LIC average, but remains high at 360. After an encouraging period of decline, maternal mortality has increased again slightly in 2014, which is in part due to increasing HIV prevalence and pregnancies for young women (Gibson et al 2014). The latter is particularly worrisome in a country that had made major inroads against HIV AIDS in the early stages of the epidemic.

Figure 2: Adolescent fertility rate (births per 1,000 women ages 15-19), and maternal mortality ratio, modeled estimates (per 100,000 live births)



Source: Gender statistics, World Bank

Table 3: Core fertility gender indicators, by country (latest year available)

Indicator	*UGA*	*TZA*	*KEN*	*RWA*	*SSA*
Fertility rate, total (births per woman)	5.96	5.28	4.45	4.61	5.11
Adolescent fertility rate (births per 1,000 women ages 15-19)	126.6	122.7	93.6	33.6	108.0
Wanted fertility rate (births per woman)	4.5	4.7	n/a	3.1	n/a
Contraceptive prevalence (% of women ages 15-49)	30	34.4	n/a	51.6	24.3
Births attended by skilled health staff (% of total)	57.4	48.9	n/a	69	49.71
Women who were first married by age 18 (% of women ages 20-24)	39.7	36.9	n/a	8.1	n/a
Age at first marriage, female	20	21	n/a	24.4	n/a
Age at first marriage, male	24.3	25.1	n/a	26.6	n/a
Maternal mortality ratio (modelled estimate, per 100,000 live births)	360	410	400	320	510

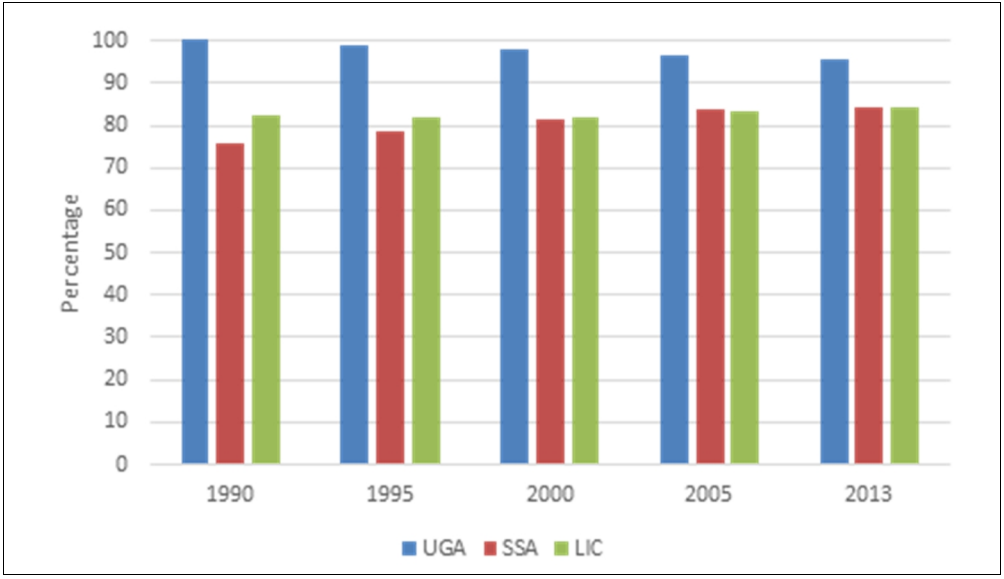
Source: Gender statistics, World Bank.

6 Labour force participation

Labour force participation is high with seemingly little discrimination between men and women, but this is due to the fact that women's work is indispensable in the rural, informal and subsistence economy. The labour force participation rate (proportion of population aged 15 and older that is economically active) is at 78 percent, well above the SSA average (71 percent) and Kenya (68 percent), but significantly below the rate of Tanzania and Rwanda (about 90 percent). The ratio of female to male labour force participation has been consistently good, at close to 100 percent, and well above the SSA and LIC average which have consistently been just over 80 percent (figure 3). The labour force participation of 15-24 year olds is above the SSA average and female are almost on par to male. The labour force participation in Kenya of 15-24 year olds is significantly worse for women than for men in comparison.

Access to financial institutions for women in Uganda, however, is well below the SSA average. Only 15 percent of women hold an account at a formal financial institution, comparing to 26 percent of men. Also, there is a large gender gap regarding access to financial institutions (table 4).

Figure 3: Ratio of female to male labor force participation (in %)



Source: Gender statistics, World Bank.

Table 4: Uganda vs. Regional Comparators: Core gender indicators by country (latest available)

Indicator	*UGA*	*TZA*	*KEN*	*RWA*	*SSA*
Labor force participation rate, total (% of total population ages 15-64) (modeled ILO estimate)	78.1	90.5	67.8	87.2	71.1
Labor force participation rate for ages 15-24, female (%) (modeled ILO estimate)	58.8	80.8	35.7	74	50.9
Labor force participation rate for ages 15-24, male (%) (modeled ILO estimate)	59.5	80.3	43.3	71	55.9
Labor force participation rate, female (% of female population ages 15-64) (modeled ILO estimate)	76.6	89.9	62.9	88	65.0
Labor force participation rate, male (% of male population ages 15-64) (modeled ILO estimate)	79.6	91.1	72.9	86.3	77.2
Ratio of female to male labor force participation rate (%) (modeled ILO estimate)	95.7	97.7	85.9	101.2	84.3
Account at a formal financial institution, male (% age 15+)	25.8	20.8	45.6	37.5	26.6
Account at a formal financial institution, female (% age 15+)	15.1	13.8	39.2	28.3	21.5
Proportion of women in ministerial level positions (%)	32.1	36.7	33.3	39.3	20.7

Source: Gender statistics, World Bank.

7 References

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