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## Original Article

# Do Gender Targets and Gender Working Groups Contribute to More Gender-Sensitive Budget Support? Evidence from 14 Sub-Saharan African Countries

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**Abstract** Aiming to increase the gender-sensitivity of budget support, the inclusion of sex-disaggregated indicators in Performance Assessment Frameworks (PAFs) and the set up of joint gender (sector) working groups have been proposed as possible remedying incentives. This article explores whether and in which (aid and country) contexts these measures have contributed to increasing female enrolment in primary education, by studying a sample of 14 Sub-Saharan African (SSA) countries. The findings of our QCA-analysis demonstrate that particularly a combination of both types of incentives contributes to high performance in increasing female primary enrolment. Additionally, both types of measures prove to be especially effective in highly aid-dependent countries. If aid dependency is combined with a supportive country context, the presence of a gender working group seems to be sufficient; in a less enabling country, setting the inclusion of sex-disaggregated indicators in the PAF is necessary, although not sufficient.

Dans le but d'augmenter la sensibilité au genre de l'appui budgétaire, l'inclusion d'indicateurs désagrégés par sexe dans les cadres d'évaluation de performance (CEP) et la mise en place de groupes de travail sur le genre ont été proposés comme de potentielles mesures incitant à une plus grande sensibilité. Cet article cherche à savoir si et dans quel contexte (aide et le pays) ces mesures ont contribué à accroître la scolarisation des filles dans l'enseignement primaire dans un échantillon de 14 pays d'Afrique subsaharienne. Les résultats de notre analyse QCA démontrent qu'une combinaison particulière de ces deux types d'incitations contribue à une importante augmentation de la scolarisation primaire féminine. En outre, les deux types de mesures se révèlent être particulièrement efficace dans les pays fortement dépendants de l'aide au développement. Si la dépendance de l'aide au développement est combinée avec un contexte national favorable, la présence d'un groupe de travail sur le genre semble être suffisante alors que dans un contexte moins favorable, l'inclusion d'indicateurs désagrégés par sexe dans le CEP pays est nécessaire, mais pas suffisante.

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## Introduction

Aiming to promote aid effectiveness, the 2005 Paris Declaration (PD) lay down a reform agenda focussed on principles of ownership, harmonisation, alignment, managing for results, and accountability. In line with the PD principles, donors have replaced their traditional projects with more programme-oriented aid and budget support. While the original PD was largely gender-blind, over time several measures have been suggested which donors can introduce to increase the gender-sensitivity of sector and general budget support. Amongst these measures are the inclusion of sex-disaggregated or gender-related indicators and targets in Performance Assessment Frameworks (PAFs), which are

important instruments during joint (sector) reviews and disbursement decisions; and the set up of joint gender (sector) working groups, that bring together gender experts from various settings (government, donors, civil society) and that lobby and participate in joint (sector) reviews and policy dialogues (OECD/DAC, 2008; Holvoet, 2010). While in a number of countries these measures have been implemented in the context of (sector and general) budget support, to the best of our knowledge there is little to no systematic research with respect to the use and effectiveness of these measures on the ground. Our research aims, in particular, to fill this gap in the aid and gender literature, and explores whether the inclusion of sex-disaggregated or gender-related indicators and targets in PAFs and/or the set-up of joint gender working groups have contributed to changes in gender-specific outcomes and in which (aid and country) contexts these measures seem to be most effective.

Our research focuses on budget support to the education sector, including sector budget support (SBS) and general budget support (GBS) with an education focus. The rationale for the subject of our study is threefold. Firstly, education is one of the key budget support sectors where over the past decade sex-disaggregated indicators have been introduced in PAFs, and in which gender working groups have also been operational. Secondly, due to their prominent presence in education budget support operations in a wide range of developing countries, we focus on countries where the European Commission (EC) was involved as a donor. Thirdly, as SSA is particularly lagging behind with respect to girls' education, we opted to focus on this region. The substantial differences among countries in the region at the same time opens up opportunities for interesting cross-country comparative analysis.

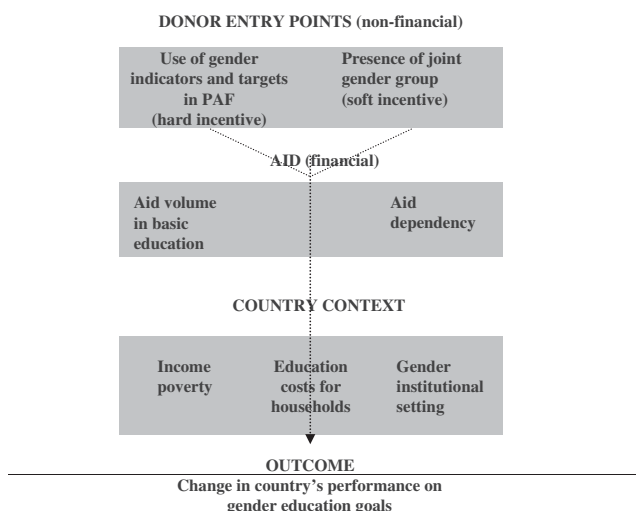
As no analytical framework was readily available for the topic under study, we first invested in the development of a framework which is introduced in the next section. Our empirical analysis uses Qualitative Comparative Analysis (QCA) which is particularly apt to explore multiple pathways that might lead to the same outcome (Rihoux and Ragin, 2009). More details on methodology, findings and analysis are provided in the subsequent sections while the last section concludes.

## **Exploring Gender Effectiveness of Education Budget Support: Towards an Analytical Framework**

Our topic is at the nexus of different streams of literature, including research on gender and changing aid modalities, gender and education, use of hard and soft incentives in gender mainstreaming, and education aid effectiveness. In what follows we mainly focus on elements that are considered relevant from our own research perspective and that directly feed into our conceptual framework (Figure 1).

### **Changing Aid Modalities Through a Gender Lens**

While there is generally agreement about the opportunities and risks that the five key PD principles in theory hold for gender equality and women's empowerment (Gaynor, 2007), there is much less evidence with respect to what actually happens on the ground. There is some research on the gender-sensitivity of Poverty Reduction Strategy Papers (Holvoet, 2010); also, the optional gender module<sup>1</sup> included in the 2011 PD Survey gives us some insight into the recipient part of the reform agenda. Findings of the 2011 optional gender module highlight that, since 2005, most progress has been made in addressing gender equality in national development strategies. However, as most of the gender priorities are not budgeted for, the risk of policy



**Figure 1:** Analytical framework.

evaporation is high, which is also confirmed by the fact that countries scored less on the ‘gender equality results’. Interestingly, the survey findings highlight that where sex-disaggregated indicators have been used, they have led to an increased focus on, and budget allocation for, gender equality and women’s empowerment (OECD, 2011).

While the locus of attention on the recipients’ side rightly reflects the shift in responsibilities propagated under the changing aid architecture, more attention for how donors are dealing with gender concerns in the realm of these ongoing changes is just as relevant. It is particularly interesting in this respect to refer to the 2007 OECD/DAC study which highlighted that many donor agencies do not really know how to handle gender issues in sector and general budget support (OECD/DAC, 2007). In response to this OECD/DAC study, useful suggestions have been made from within the OECD/DAC (2008) and UN Women (2010). In brief, the key message is that the entry points which donors generally use in budget support operations to influence a country’s policies and systems are equally well suited to promote the inclusion of a gender dimension in national policies and systems. Donor entry points include *ex-ante* appraisal of policies and systems, mapping of non-state actors, policy dialogue, capacity building, identification of performance assessment frameworks (PAFs), organisation of (sector) working groups, monitoring and evaluative exercises such as joint (sector) reviews.

To the best of our knowledge, there is no systematic account of the degree to which these suggestions have been taken on board in the context of budget support operations, and little to no systematic evidence with respect to their effectiveness. One noteworthy exception is the 2011 EC evaluation of budget support operations (cases of Mali, Zambia, Tunisia) which highlights that, in Mali, the disaggregation of health and education indicators in PAFs and the inclusion of gender issues during health and education sector policy dialogues led to an increase of girls’ enrolment and completion rates in primary education and their progression rates in secondary education, while gender parity remained unchanged (Caputo *et al*, 2011).

In our research, we focus on two specific entry-points, i.e. the inclusion of sex-disaggregated or gender-related education indicators and targets in PAFs, and the organisation of gender (sector) working groups where donors and country stakeholders harmonise with each other regarding joint analytical work, joint priority setting, etc. As these different

types of incentives show characteristics of ‘harder’ and ‘softer’ incentives, we can conceptually link to the ongoing discussion in the gender mainstreaming literature around the use of ‘hard’ and ‘soft’ incentives.

### **Hard and Soft Incentives in Gender Mainstreaming**

Since its introduction at the 1995 Beijing conference, gender mainstreaming has become a much-discussed buzzword in gender research and policy. While most countries in the world have at the least a discourse on gender mainstreaming, research highlights that – in reality – gender mainstreaming often evaporates throughout the intervention cycle (Holvoet, 2010). Factors that have been put forward to explain this phenomenon of policy evaporation include, among others, the lack of political willingness, the unclear division of responsibilities between gender and non-gender expertise, the lack of budgets and capacities, deficient monitoring and evaluation, and the lack of accountability structures and clear-cut incentives (Hafner-Burton and Pollack, 2009; Pollack and Hafner-Burton, 2010).

The discussion with respect to incentives has lately centred on the use of ‘hard’ and/versus ‘soft’ incentives. Hard incentives refer to binding and enforceable measures while soft incentives are less precise, non-binding and dependent on voluntary compliance (Pollack and Hafner-Burton, 2010). Pollack and Hafner-Burton (2010, p. 292) highlight that ‘in reality there is more of a continuum, from soft to hard, including for instance the establishment of coordinating committees and networks of gender mainstreaming officials, the collection of sex-disaggregated statistics, checklists, manuals, handbooks, gender training, gender impact assessment of policies, post-hoc monitoring and evaluation to the enforcement through positive and negative sanctioning of public officials’. In their comparative case-study research on the effectiveness of gender mainstreaming in the EC, Pollack and Hafner-Burton (2010) demonstrate that cross-cutting mandates such as gender and environment are more successfully implemented when hard incentives are being used. Others (Weaver, 2008 cited in Pollack and Hafner-Burton, 2010) however are more sceptical and point out that hard incentives mainly provoke ritual compliance rather than far-reaching changes in social institutions. Additionally, the inclusion of sex-disaggregated indicators might also be counterproductive as it tends to reinforce the idea that gender concerns are foreign ideologies imposed from the outside (Elson and Mc Gee, 1995). From this vantage point, the use of ‘pro forma or consensual conditionalities’ (Killick, 1998) referring to the joint identification of targets that are in line with nationally owned policies is particularly important (see also Caputo *et al*, 2011). With regards to the case at hand, this involves the integration of gender and sex-disaggregated indicators and targets into PAFs that have been used in national sector policies or national gender strategies, amongst others.

Finally, we also learn from the relatively well documented effects of the setting of gender targets for countries in the context of the EU adhesion process. Sedelmeier (2009) and Montinola (2010) have highlighted that for external incentives to be effective, they have to be combined with a number of favourable domestic conditions (including democratic governance and control of corruption). At the same time, the credibility of external incentives and the use of realistic targets (that take into account country realities) is also important (see also Lewin, 2005). As regards our own study, one straightforward way of localising indicators and targets is through joint identification within the setting of a joint gender (sector) working group, which hints at the fact that ‘harder’ and ‘softer’ incentives might also be mutually reinforcing.

## Effectiveness of Education Aid

In order to empirically study the comparative effectiveness of different types of incentives, we focus on the education sector. Our sector focus can be justified on multiple grounds. First, within the aid effectiveness literature, there is a recent move from a focus on general aid effectiveness to sector aid effectiveness. As causal chains in sector aid effectiveness research are generally less long and complex, there is more room for refinement, and more possibilities exist to control for the influence of other intervening variables (Michaelowa and Weber, 2007; Dreher *et al*, 2008; Christensen *et al*, 2011). Within this research strand, the education sector has received much attention, as donors have devoted substantial shares of aid resources to the education sector. The education sector is also at the forefront of the implementation of sector-wide approaches and (sector) budget support.

Our focus on the education sector can also be justified from a gender perspective. Translating ‘gender equality’ into indicators in practice often leads to a bias towards gender equality in primary and secondary education. While this ‘reductionism’ is obviously not without criticism, it simultaneously makes the education sector the most logical (if not the only possible) choice for research that focuses on the effectiveness of sex-disaggregated indicators and targets. Besides this, there is also a vast gender and education literature (Kane, 2004; Sutherland-Addy, 2008; UNESCO, 2014) that has identified both demand and supply side factors that influence gender-specific education outcomes and that will be useful inputs in the development of our analytical framework. While the obstacles to girls’ education are clearly diverse, most publications acknowledge the crucial importance of income (at country and household level) and costs on the one hand, and societal institutions (social norms, customs, rights and laws) that shape the context in which households and individuals take decisions on the other hand (Kane, 2004; Sutherland-Addy, 2008). While indirect costs and opportunity costs also add explanatory power to girls’ lower participation in education, it is suggested that direct costs alone are often already an insurmountable obstacle for poor households. This is obvious from research in Malawi, Ghana, and Uganda, for example, which has highlighted the particularly high effects on girls’ enrolment rates resulting from an abolishment of user fees (Kane, 2004; Sutherland-Addy, 2008).

As highlighted in Christensen *et al* (2011), the academic education aid effectiveness literature itself is still relatively recent, without much conclusive evidence or insights into how aid translates into better education outcomes, and at the same time it is also largely gender-blind. An in-depth review of the literature is beyond the scope of this article, yet we select a number of insights with respect to research methodology and findings that feed into our own research. While the difference between quality and quantity of education is generally acknowledged, most research focuses on enrolment rates which is considered a credible first step (Christensen *et al*, 2011) and this holds particularly true for girls’ education where entry at primary is conceived as the most important step (UNESCO, 2014). Turning to the aid variables under study, the focus has thus far mainly been on aggregate aid flows, while some studies have also started to explore the potential differential effects of different aid flows (Michaelowa and Weber, 2007; Christensen *et al*, 2011). With regard to findings, one general observation is that the availability of financial (aid) resources alone is not enough to influence education outcomes. Certain structural parameters of the education system and the wider institutional setting also need to change in order to reach any of the international education goals. More specifically, education aid seems to be more effective when combined with good governance and reduced corruption (Christensen *et al*, 2011), and political and institutional governance seem to be particularly important (Michaelowa and Weber, 2007).

Building on the above strands of literature we have developed an analytical framework which is visualised in Figure 1. Our main focus of attention is the effectiveness of two different types of incentives used by donors to trigger changes in gender education goals, while we also include a number of aid, country and gender context variables which have been distilled on the basis of the above literature. The different variables included in Figure 1 will be made operational in the next section. As we are particularly interested in the possible interplay of the different factors under study, we have employed QCA.

## Methodology

QCA, developed by Ragin in 1987, was originally presented as a research approach occupying a niche between case-oriented ('qualitative') and variable-oriented ('quantitative') methods (Ragin, 1987; Rihoux and Marx, 2013). In contrast to statistical methods – in which a large number of cases and a relatively small number of variables are used – QCA allows the systematic comparison of a relatively small number of cases and to reduce complex social situations by transforming cases into configurations (Rihoux and Ragin, 2009). A configuration refers to a given combination of conditions (e.g. presence of sex-disaggregated indicators in PAFs and presence of gender (sector) working groups) and an outcome (e.g., change in female net enrolment ratio), and can cover one or multiple cases (Rihoux and Lobe, 2009). Central in QCA is the identification of (combinations of) conditions that can be interpreted in terms of necessity and sufficiency. As stated in Schneider and Wagemann (2010, p. 3) 'a condition is considered necessary if when the outcome is present, the condition is always present. A condition is considered sufficient if when the condition is present, the outcome is always present'.

While statistical methods like correlation and regression disregard distinct patterns and outliers, QCA broadens the notion of causality by viewing it as context and conjunction specific (Rihoux and Ragin, 2009). It recognises that generally a combination of conditions generates an outcome, and that several combinations of conditions can produce the same outcome (equifinality). In addition, if combined with other conditions, a condition can be sufficient for the presence *and* absence of an outcome. Asymmetrical causality is crucial when using QCA as it implies that the analyses of the occurrence of a phenomenon (i.e. increase in female net enrolment ratio) and non-occurrence of that phenomenon (i.e. no increase in female net enrolment rate) are to be conducted separately, because the causal mechanisms are not necessarily reversed.

Before proceeding to QCA proper, for which specific software (Tosmana and fsQCA) is used, cases, outcomes and conditions need to be selected and dichotomised in order to create a dichotomous data table in which the outcomes and conditions for each case are allocated a '0' or a '1'.<sup>2</sup> Dichotomised outcomes and conditions are obtained through the identification of calibration points. While using hypothesis-driven calibration points is the best option (Schneider and Wagemann, 2010), mechanical cut-off points could be used if this is not possible (Rihoux and Ragin, 2009).

The choice and operationalisation of the variables (see Table 1) has been guided by the literature review, by data availabilities, and by the limitations with respect to the number of variables set by QCA. From the broad set of possible outcome variables, we have selected an MDG education indicator, i.e. 'change in female net enrolment ratio (primary education) (NER) over the period 2005 to 2010'. The specific focus on the primary education level is in line with the type of indicators and targets included in the PAFs (see below). Data on this indicator is collected from the Education for All (EFA) reports, and is available for 18 of the 30 SSA countries which

**Table 1:** Operationalisation of the analytical framework

<i>Variables</i>	<i>Operationalisation</i>	<i>Calibration point</i>
OUTCOME VARIABLE	Change in female NER between 2005 and 2010 (NER) <sup>a</sup>	> 10.5% (SSA average) or lower increase, but already >95% female enrolment in 2005=1 ≤10.5% and lower than 95% female enrolment in 2005=0
CONDITIONS	Donor entry points (non-financial)	Sex-disaggregated NER indicators and targets in PAF (P) Present=1 Absent=0
	Aid (financial)	Presence of a gender working group (G) Present=1 Absent=0
	Income	Total aid to basic education per primary school-age child (average 2005–2010) (A) > 14.2 US\$=1 ≤ 14.2 US\$=0
	Education costs for households	ODA/ gross national income (GNI) (average 2005–2010) (O) > 10%=1 ≤ 10%=0
	Gender Institutional Setting	Gross domestic product (GDP)/capita (average 2005–2010) (D) > 1400 US\$=1 ≤ 1400 US\$=0
		Presence of free primary education (F) Present=1 Absent=0
		SIGI 2009 (S) < 0.15=1 ≥ 0.15=0

<sup>a</sup>Change in female NER between 2005 and 2010 is calculated as  $(NER_{2010} - NER_{2005})/NER_{2005} * 100$ .

received budget support with a focus on education in the period under study. With respect to the calibration of the outcome variable, we have mainly been guided by the SSA average, as this allowed us to have sufficient variation between the cases.<sup>3</sup> This led to a cut-off point being set at 10.5 per cent while we have also taken into account the take-off position in 2005 in order to correct for the fact that changes in NER are more difficult to realise for countries that already had higher rates initially.

As regards the two main conditions under study, we have scored ‘1’ on sex-disaggregated or gender-related NER indicators in PAFs if one or more of these indicators were included in one or more PAFs used in the period 2005 to 2010, while a score ‘1’ was assigned to ‘gender working groups’ when one or more gender working groups were active in this period. Of the 18 countries with information on the outcome variable, we were able to collect data regarding PAFs and gender working groups for 15 countries.

With regard to aid (financial) variables we have included the total aid to basic/education per primary school-age child (average over the period 2005–2010) and per cent ODA/GNI (average over the period 2005–2010). Data with respect to these variables has been collected from the EFA and World Bank databases. As calibration points we have used the SSA average of 14.2 USD for total aid to basic education per primary school-age child, and for ODA/GNI we have opted for a cut-off point of 10 per cent, in line with what has been used by the Overseas Development Institute (2012) to differentiate between ‘high aid countries’ and ‘middle aid countries’.<sup>4</sup>

When it comes to the choice and operationalisation of context variables, we were severely restricted by data availabilities. In line with other multi-country aid effectiveness studies (Michaelowa and Weber, 2007; Dreher *et al.*, 2008) we have opted to use GDP/capita

(average over the period 2005–2010) as a proxy for a country's general income level. Additionally, we have included the presence of free primary education as a proxy for costs that households face (absence=0, presence=1) and the Social Institutions and Gender Index (SIGI) to capture gender discrimination in social institutions. The SIGI is a composite index that has been constructed under the auspices of the OECD/DAC, and that combines five dimensions including 'family code', 'civil liberties', 'physical integrity', 'son preference', and 'ownership rights' (Branisa *et al.*, 2013). The fact that the SIGI is the only index that refers to deep-rooted norms and formal and informal laws that influence (education) outcomes, makes it more apt for our type of research than other indices such as the Gender Inequality Index which include the (education) outcome measures themselves. Data on GDP/capita was collected from the IMF World Economic Outlook Database, SIGI-data was taken from the 2009 OECD/DAC GID database, while data on the presence of free primary education draws upon Tomasevski (2006, used in the 2010 EFA Global Monitoring Report), World Bank and UNICEF (2009). For the GDP/capita and the presence of free primary education, data was available for all 15 countries, though the SIGI was not available for Cape Verde, which decreased our final sample to 14 countries.

The calibration for the income variable, GDP/capita, was not straightforward, as only two of the countries under study (Botswana and Ghana) have a GDP/capita above the SSA average (2078 USD). Therefore, we used the threshold setter in the software program Tosmana (Cronqvist, 2006) to identify an 'open space' in the values. On this basis we have opted for 1400 USD as cut-off point. For the gender institutional setting indicator, the SIGI, we based our calibration on the classification used by the OECD (nd). For the SIGI 2009 the OECD uses five categories, countries with high, medium/high, medium, medium/low and low gender discrimination. We have assigned a '0' score to countries with high and medium/high discrimination (SIGI equal or above 0.15) and a '1' score to countries with medium, medium/low and low gender discrimination (SIGI below 0.15).

On the basis of the information available for our sample of 14 countries, we produced a table with raw data which we dichotomised (1 or 0) on the basis of the identified calibration points (Appendix A). The different conditions have subsequently been employed in the csQCA analysis to explore how the interplay between the non-financial donor entry points, (financial) aid variables and country context variables lead to high performance on change in primary enrolment.

## Findings and Analysis

### Necessary Conditions for High Performance on Increasing Female Primary Enrolment

Before studying the paths to high performance on increasing female NER in primary education, we first perform a 'necessity analysis'. In doing this, we calculate for each individual condition in the dichotomous data table 'the necessity'. A perfectly consistent 'necessity' (value 1) implies that a condition *x* is present in all cases that show outcome *y* (but condition *x* can be present in cases which do not show outcome *y*) (Schneider and Wagemann, 2012). Taking into account a threshold of 0.90 for necessity (Schneider and Wagemann, 2010), findings in Table 2 highlight that no single condition is necessary. However, the presence of sex-disaggregated NER indicators in the PAF, the presence of a gender working group and total aid to basic education per primary school-age child come close to the threshold of 0.90. The analysis of the necessity of the inclusive disjunctions of the different conditions in the analytical framework (representing donor entry points, aid and country context), demonstrates that the donor entry points (presence of sex-disaggregated NER indicators in



**Table 2:** Necessity analysis for high performance on increasing female primary enrolment

Condition(s)	Consistency <sup>a</sup>	Coverage <sup>b</sup>
<i>Sex-disaggregated NER indicators and targets in PAF</i>	0.89	0.89
<i>Gender working group</i>	0.89	1.00
<i>Total aid to basic education per primary school-age child</i>	0.89	0.67
<i>ODA/GNI</i>	0.78	0.78
<i>Presence of free primary education</i>	0.67	0.60
<i>SIGI</i>	0.44	0.57
<i>GDP/capita</i>	0.22	0.33
<i>Sex-disaggregated NER indicators and targets in PAF and/or gender working group</i>	1.00	0.90
<i>Total aid to basic education per primary school-age child and/or ODA/GNI</i>	1.00	0.69
<i>Presence of free primary education and/or SIGI and/or GDP/capita</i>	0.67	0.55

<sup>a</sup>“Consistency” assesses the degree to which the cases sharing a given condition or combination of conditions agree in displaying the outcome in question’ (Ragin, 2006, p. 290). It is calculated as the number of members with condition x and outcome y / number of members with outcome y (see Schneider and Wagemann, 2012).

<sup>b</sup>Calculated with fsQCA (Ragin *et al.*, 2006).

the PAF and/ or gender working group) and the aid conditions (basic education aid per child and/ or ODA/GNI) are necessary for high performance on increasing female primary enrolment (value 1) while this does not hold for the country context conditions (GDP/ capita, presence of free education and/or SIGI) (value of 0.67).

For our set of 7 conditions, we created a truth table with 128 ( $2^7$ ) possible combinations, of which 12 are observed. Of these 12 observed combinations 7 show the outcome and 5 do not show the outcome (Appendix B). The remaining 116 possible combinations are logical remainders, which are combinations of conditions for which there are no empirical cases (Rihoux and Ragin, 2009). As a high number of logical remainders in relation to observed cases points to a limited diversity problem,<sup>5</sup> it is preferable to limit the number of conditions to be included in a QCA analysis (Rihoux and Ragin, 2009; Schneider and Wagemann, 2010; Marx and Dusa, 2011).<sup>6</sup> As solutions with a high number of conditions also limit the possibility for useful interpretation (Schneider and Wagemann, 2010), we decided to drop two conditions. More specifically, we dropped the GDP/capita as the data (Appendix C) show that of the countries with a positive outcome all countries with a high GDP/capita (GDP/capita=‘1’) are not dependent on aid (ODA/GNI=‘0’) while all countries with a low GDP/capita (GDP/capita=‘0’) are aid dependent (ODA/GNI=‘1’).<sup>7</sup> Additionally, we removed the total aid to basic education per primary school-age child as this variable demonstrates insufficient variation<sup>8</sup> (only 2/14 countries in the sample receive less than the SSA average of 14.2 US\$). This elimination process finally generates a set of five conditions for the NER outcome:<sup>9</sup> presence of sex-disaggregated NER indicators in the PAF, presence of a gender working group, ODA/GNI, presence of free primary education and the SIGI.

### Paths to High Performance on Increasing the Female Net Enrolment Ratio in Primary Education

For the analyses of the performance on increasing female net enrolment ratios we used Tosmana (Cronqvist, 2006). We created a truth table for the set of five conditions with 32 ( $2^5$ ) possible combinations, of which 10 are observed while the other 22 are logical remainders.

**Table 3:** Truth table (without logical remainders)

<i>PAF</i>	<i>Conditions</i>				<i>SIGI</i>	<i>Outcome</i> <i>NER</i>	<i>Country</i>
	<i>gender working group</i>	<i>ODA/GNI</i>	<i>free education</i>				
1	1	1	1	1	1	1	Tanzania
1	1	1	1	0	0	1	Ethiopia, Mozambique
1	1	1	0	0	0	1	Burkina Faso, Mali
1	1	0	1	1	1	1	Ghana, Senegal
0	1	1	1	1	1	1	Malawi
1	0	1	0	0	0	1	Niger
0	0	0	0	1	0	0	Botswana
0	0	1	1	0	0	0	Gambia
0	0	0	1	1	0	0	Kenia, Lesotho
1	0	1	1	0	0	0	Zambia

**Table 4:** QCA sufficiency analysis for increase in female NER

<i>Countries</i>	<i>Causal configuration</i>	<i>Raw coverage</i> <sup>a</sup>	<i>Unique coverage</i> <sup>b</sup>	<i>Consistency</i> <sup>c</sup>
Burkina Faso, Ethiopia, Mali and Mozambique	PGOs	0.44	0.22	1.00
Ghana, Senegal and Tanzania	PGSF	0.33	0.22	1.00
Burkina Faso, Mali and Niger	POsf	0.33	0.11	1.00
Malawi and Tanzania	GOSF	0.22	0.11	1.00

<sup>a</sup>The raw coverage demonstrates how much of an outcome is covered by each path (Schneider and Wagemann, 2012).

<sup>b</sup>The unique coverage highlights how much of the outcome is covered only by a specific path (Schneider and Wagemann, 2012).

<sup>c</sup>As there are no contradictory cases, the overall consistency value is 1.00.

Of the 10 observed combinations 6 show the outcome and 4 do not show the outcome (Table 3 and Venn diagram in Annex 3).

In the next step the software uses QCA Boolean algebra to minimise the combinations for the occurrence of the outcome. Boolean algebra employs ‘+’ as OR, and ‘\*’ as AND. Capital letters indicate the presence of a condition, while lower case letters indicate the absence of a condition. Five conditions were included in the analysis: P (PAF), G (gender working group), O (ODA/GNI), F (free education) and S (SIGI). The QCA output is based on a process of logical minimisation<sup>10</sup> (Ragin, 1987), the ‘->’ symbol indicates that the causal configurations to the left are sufficient for the outcome to the right.

$$PGOs + PGSF + POsf + GOSF - > NER$$

The above formula highlights that four possible combinations of conditions lead to high performance on increasing the female NER. These four combinations are all sufficient for a positive outcome while none of them is necessary.<sup>11</sup> The relative importance of these four paths is shown in Table 4. The first path reads as follows: in aid dependent countries (high percentage of ODA/GDP) where gender discrimination is relatively high (a relatively high sigi), the presence of sex-disaggregated NER indicators in the PAF in combination with the presence of a Gender working group leads to a positive outcome. Countries that have followed this path are

Burkina Faso, Ethiopia, Mali and Mozambique. The second combination includes countries with relatively low gender discrimination (relatively low **SIGI**) and with **Free** education where a **PAF** with sex-disaggregated **NER** indicators and a **Gender** working group are present. Ghana, Senegal and Tanzania are in this group. The third path is followed by three countries (Burkina Faso, Mali and Niger)<sup>12</sup> and reads as follows: in aid dependent countries (high percentage of **ODA/GDP**) where gender discrimination is high (a relatively high **sigi**) and where there is no **free** education, the presence of sex-disaggregated **NER** indicators in the **PAF** leads to high performance on increasing the female **NER**. The last combination includes aid dependent countries (high percentage of **ODA/GDP**) with relatively low gender discrimination (relatively low **SIGI**) and with **Free** education where a **Gender** working group is present. Countries in this group are Malawi and Tanzania.

These solutions suggest that in aid dependent countries with relatively high gender discrimination (Burkina Faso, Ethiopia, Mali, Niger and Mozambique) harder incentives are necessary in order to show high performance on increasing female primary enrolment. In countries with relatively low gender discrimination and free education (Ghana, Malawi, Senegal and Tanzania), the level of aid dependency is less relevant if both harder and softer incentives are used (Ghana, Senegal and Tanzania). If all enabling context conditions are present (aid dependency, relatively low gender discrimination, free education) (Malawi, Tanzania) hard incentives are less relevant, but soft incentives (gender working groups) are still necessary.

As mentioned in the methodology section, due to asymmetrical causality, the analyses of the absence of the outcome should be conducted separately. The solution for the absence of the outcome is:

$$pgoS + gOsF - > ner$$

The first path is followed by Botswana, Kenya and Lesotho and means that the absence of sex-disaggregated **NER** indicators in the **paf** and the absence of a **gender** working group in a country with relatively low gender discrimination (relatively low **SIGI**) that is not dependent on aid (relatively low percentage of **oda/gdp**) leads to an absence of the outcome.<sup>13</sup> The second solution highlights that the absence of a **gender** working group in an aid dependent country (high percentage of **ODA/GDP**) where gender discrimination is relatively high (relatively high **sigi**) with **Free** education leads to the absence of the outcome. Gambia and Zambia follow this path.<sup>14</sup> This solution suggests that if hard and soft incentives are not used in countries with a relatively low level of gender discrimination that are not dependent on aid, little or no progress is made in female **NER**. Additionally, if soft incentives are not used in aid dependent countries with a relative high level of gender discrimination little or no progress is made, even if education is free.

Interestingly, the presence of sex-disaggregated **NER** indicators in the **PAF** and/or **gender** working group are included in all solutions. In fact the four countries that do not have sex-disaggregated **NER** indicators in the **PAF** and no **gender** working group (Botswana, Gambia, Kenya and Lesotho) do not show a high performance on increasing the female **NER**. This means that the combined absence of a **gender** working group and sex-disaggregated **NER** indicators in the **PAF** is a subset of the absence of the outcome, which is clearly visible in the (upper left quadrant of the) Venn diagram (see Annex 3). At the same time the combined presence of a **gender** working group and sex-disaggregated **NER** indicators in the **PAF** is a subset of the presence of the outcome: all countries with both conditions present, show a high performance on increasing the female **NER** (see lower right quadrant of the Venn diagram, see Annex 3).

## Discussion and Conclusion

The findings of our research confirm the importance of the use of incentives to promote gender mainstreaming. In the countries under study the inclusion of sex-disaggregated NER indicators in the PAF, and/or the presence of a joint gender working group, contributed to high performance on increasing female net enrolment. The use of incentives proves to be especially effective in highly aid-dependent countries, which does not entirely come as a surprise given the relatively higher level of benefit for recipient countries in these settings. While the inclusion of a gender dimension in donor entry points is certainly not without discussion, it is also not necessarily counter to the Paris Declaration ownership principle, as most of the countries do have country-owned gender equality and empowerment policy objectives, as well as an institutional apparatus and actors with a specific mandate towards those objectives. These national or sector gender policies are, however, more often than not neglected in national poverty reduction strategies, development plans and sector policies, while national gender expertise also often tends to be hardly involved in national development policy-making, budgeting, implementation and M&E. In such settings, the inclusion of a gender dimension in donor entry points is an effective way to give more weight to nationally-owned gender policies, and to increase the room for manoeuvre of the existing gender mainstreaming apparatus (see also Holvoet and Inberg, 2014a, b).

In the two countries with a positive outcome that are not highly dependent on aid (Ghana, Senegal) the local context has been supportive towards the effectiveness of targets and gender working groups. Gender discrimination in both countries is relatively low and education is free. It seems that in countries with a supportive context that are also highly aid dependent (Malawi, Tanzania), the use of soft incentives is sufficient. In a less supportive context the use of hard incentives is necessary, but also not sufficient for a positive outcome. Burkina Faso, Mali and Niger for example do not have free education, and gender discrimination in these three countries is also high, but the fact that they are highly aid-dependent contributed to an effective use of the donor entry points.

In four countries (Ghana, Ethiopia, Mozambique and Senegal), the combination of the presence of sex-disaggregated NER indicators in the PAF, and the presence of a gender working group, has been necessary for a positive outcome, while three other countries with a positive outcome (Burkina Faso, Mali and Tanzania) have both sex-disaggregated NER indicators in the PAF and a gender working group. This combined effect of hard and soft incentives does not really come as a surprise. The mandate of joint gender working groups often includes the mainstreaming of gender in the formulation, implementation and M&E of poverty PRSPs and PAFs increasingly rely upon targets and indicators included in PRSPs. Gender working groups could thus (indirectly) stimulate the inclusion of gender and sex-disaggregated indicators in the PAF. Importantly, the discussion among a broad range of stakeholders in joint gender working groups also helps to identify localised indicators and realistic gender and sex-disaggregated targets, which in turn also increases their effectiveness. Conversely, our own field research in Mozambique (Holvoet and Inberg, 2014b) demonstrated that once sex-disaggregated and gender indicators are included in PAFs, gender working groups have more leverage to put gender issues on the agenda of (sector) policy dialogues and joint monitoring exercises such as joint (sector) reviews (Holvoet and Inberg, 2014b).

As gender working groups are absent in the five countries in our sample that do not show a positive outcome, an important first entry point for donors to promote the inclusion of a gender dimension in national policies and systems in these countries could be the setting up of a gender (sector) working group. In fact, providing neutral spaces for discussion among actors from various settings (inside and outside government) and with different comparative advantages also

neatly matches the donor's function of brokerage between state and citizens, which is particularly critical in countries where relations between state and society are weak or do not exist (Unsworth, 2009). As gender experts within bilateral and multilateral donor agencies might be particularly well-placed to fulfil such a brokering role, investing in gender expertise and adapting their mandate and location might be preferable to the current tendency to downsize gender expertise in field offices (Holvoet and Inberg, 2012).

Finally, our findings tie in closely with the outcomes of a 2012 OECD/DAC study demonstrating that international targets for gender equality in education have been effective in focusing donor efforts on reducing enrolment gaps between girls and boys. According to this study, similar global commitments and targets with respect to gender equality in the economic and productive sectors could help to intensify donor efforts in these critical areas, where gender-based inequalities often tend to be even more pronounced than in the education sector (OECD/DAC, 2012). In line with this, one could argue in favour of broadening the inclusion of gender and sex-disaggregated indicators and targets in PAFs beyond the education (and health) sector to economic and productive sectors. However, as it is highly likely that other aid and context dimensions will be of influence in these sectors, more fine-tuned research that specifically focuses on these sectors is needed.

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## Notes

1. The three gender equality indicators included are: (i) gender equality and women's empowerment are grounded in a systematic manner in national development strategies (ownership); (ii) data are disaggregated by sex (managing for gender equality results); (iii) mutual accountability for gender equality and women's empowerment (OECD/DAC, 2010, p. 4).
2. We relied upon crisp-set QCA analysis (csQCA), which only uses dichotomised data as our two main conditions under study (sex-disaggregated indicators in the PAF, presence of joint gender working group) can easily be dichotomised.
3. As SSA generally has a weak performance on education indicators more globally based cut-off points result in insufficient variation between SSA countries to perform QCA.
4. According to the classification of the Overseas Development Institute 'high aid countries' are countries with an ODA/GNI above 10 per cent, 'middle aid countries' have an ODA/GNI between 2 and 10 per cent, 'low aid countries' an ODA/GNI between 1 and 2 per cent and 'very low aid countries' an ODA/GNI below 1 per cent (Overseas Development Institute, 2012).
5. This refers to the fact that 'the observed data are far less rich than the potential property space delineated by the conditions' (see Rihoux and Ragin, 2009, p. 27).
6. The benchmark table developed by Marx and Dusa (2011) put forward a minimum of 34 cases for 7 conditions as a threshold for generating non-random meaningful conjunctural paths.
7. This means that the necessity of the exclusive disjunction of both conditions is 1. As the conditions are too proximate, it is a plausible reason to drop one of them (Rihoux and Ragin, 2009, p. 45). In fact, in the paths to a positive outcome, high aid dependency (ODA/GNI=1) could be replaced by low GDP/capita (GDP/capita=0). Except for one country (Gambia), the same conclusion holds for the absence of the outcome (NER=0).
8. A general rule for variation is at least 1/3 for each value (Rihoux and Ragin, 2009, p. 45).
9. Even though the proportion of conditions to cases should preferably be less than 0.33 (Marx, 2010), and with 5 conditions and 14 cases this is 0.36, we decided to include 5 conditions, as the parsimonious

solutions of the five conditions' analysis encompass the parsimonious solutions of the four conditions' analysis (PAF, gender working group, free education, ODA and PAF, gender working group, free education, SIGI) (see also footnote 11).

10. The minimisation algorithm basically consists of reducing logically redundant factors, i.e. factors that do not contribute to explaining the outcome. In our case for example, the truth table shows that PGOF is sufficient for high performance on increasing female NER (line 1) and that PGOF is also sufficient for high performance (line 2). This hints at the fact that the state of condition f (F or f) is not important which leads to the identification of PGO as a possible path for high performance on increasing female NER.
11. Logical remainders could be included in the analyses as hypothetical cases to further minimise the outcome. However, as our study is rather exploratory we could not build upon in-depth theoretical knowledge and therefore excluded these logical remainders. The parsimonious solution, i.e. the solution with logical remainders, which is most in line with the solution without logical remainders and which is included in the five-condition parsimonious solutions and both four-condition parsimonious solutions (see footnote 9), is: G+Pf, which means that the presence of a gender working group in the parsimonious solution is sufficient but not necessary for the outcome. The inclusion of sex-disaggregated NER indicators in the PAF is an INUS condition (i.e. P is an insufficient but necessary part of a condition which is itself unnecessary but sufficient for the outcome).
12. Cases can follow multiple paths towards the outcome which explains why Mali is in both the first and third group. Tanzania is in both the second and fourth group.
13. In Lesotho female NER decreased with 15.7 per cent between 2005 and 2010, in Botswana and Kenya female NER increased slightly (4.8 per cent respectively 5.0 per cent), but below the SSA average.
14. In Gambia female NER decreased with 13.0 per cent, in Zambia female NER increased (3.4 per cent), but below SSA average.

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## Appendix A

**Table A1:** Overview of scores on outcome variables, donor entry-points, aid and country context conditions and dichotomisation between brackets<sup>a</sup> (final sample of 14 countries)

Country	Donor entry points (non financial)		AID (financial)		Context			Outcome variables		
	Sex-disaggregated gender-related NER indicators and targets in PAF (yes/no)	Gender (sector) working groups (yes/no)	Total aid to basic education/ primary school age child (average 2005–2010) (constant 2010 US \$)	Net ODA/ GNI (average 2005–2010) (%)	GDP/cap (average 2005–2010) (PPP)	Free Education (yes/no)	SIGI (0–1) (2009)	Female NER 2005	Female NER 2010	Change in NER (2005–2010)(%) b
Botswana	No (0)	No (0)	40.3 (1)	1.9 (0)	14100 (1)	No (0)	0.08102 (1)	84	88	4.8 (0)
Burkina Faso	Yes (1)	Yes (1)	42.5 (1)	13.1 (1)	1141 (0)	No (0)	0.16161 (0)	40	61	52.5 (1)
Ethiopia	Yes (1)	Yes (1)	13.7 (0)	13.7 (1)	832 (0)	Yes (1)	0.23325 (0)	66	79	19.7 (1)
Gambia	No (0)	No (0)	25.3 (1)	12 (1)	1703 (1)	Yes (1)	0.17830 (0)	77	67	-13.0 (0)
Ghana	Yes (1)	Yes (1)	27.3 (1)	6.3 (0)	2385 (1)	Yes (1)	0.11269 (1)	70	84	20 (1)
Kenya	No (0)	No (0)	11.5 (0)	4.8 (0)	1564 (1)	Yes (1)	0.13704 (1)	79	83	5.1 (0)
Lesotho	No (0)	No (0)	20.3 (1)	5.9 (0)	1566 (1)	Yes (1)	c (1)	89	75	-15.7 (0)
Malawi	No (0)	Yes (1)	21.2 (1)	20.3 (1)	707 (0)	Yes (1)	0.14323 (1)	97	99	2.1 (1)
Mali	Yes (1)	Yes (1)	56.5 (1)	13.3 (1)	1016 (0)	No (0)	0.33949 (0)	45	59	31.1 (1)
Mozambique	Yes (1)	Yes (1)	35.8 (1)	22.4 (1)	869 (0)	Yes (1)	0.19954 (0)	74	87	17.6 (1)
Niger	Yes (1)	No (0)	14.7 (1)	12.9 (1)	697 (0)	No (0)	0.17559 (0)	33	57	72.7 (1)
Senegal	Yes (1)	Yes (1)	35.3 (1)	8.1 (0)	1818 (1)	Yes (1)	0.11041 (1)	67	78	16.4 (1)
Tanzania	Yes (1)	Yes (1)	16.7 (1)	13.2 (1)	1297 (0)	Yes (1)	0.11244 (1)	97	98	1.0 (1)
Zambia	Yes (1)	No (0)	38.7 (1)	11.4 (1)	1322 (0)	Yes (1)	0.21939 (0)	89	92	3.4 (0)

Sources: IMF (2012); Tomasevski (2006); UNESCO (2008, 2009, 2011, 2012); World Bank and UNICEF (2009); <http://data.worldbank.org>; [http://genderindex.org/ranking\\_2009](http://genderindex.org/ranking_2009)

a. (1)=presence of condition, (0)= absence of condition

b. Change in female NER between 2005 and 2010 is calculated as (NER 2010 – NER 2005)/NER 2005\*100

c. Lesotho has no 2009 SIGI score, as not all data was available on all SIGI sub-indicators (we based our ‘1’ score in the dichotomous data table on the data available)

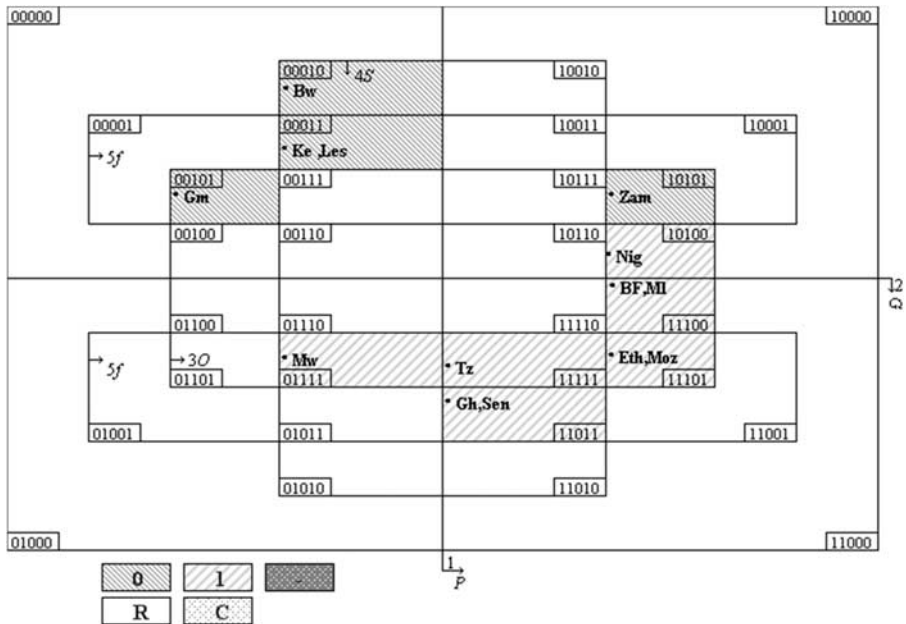


## Appendix B

**Table B1:** Truth table (7 conditions) (without logical remainders)

Conditions							Outcome	Country	
PAF	Gender group	working	ODA/ GNI	free education	SIGI	GDP/ capita	Aid to basic education/child	NER	
1	1	1	1	1	1	0	1	1	Tanzania
1	1	1	1	1	0	0	0	1	Ethiopia
1	1	1	1	1	0	0	1	1	Mozambique
1	1	1	1	0	0	0	1	1	Burkina Faso, Mali
1	1	0	1	1	1	1	1	1	Ghana, Senegal
0	1	1	1	1	1	0	1	1	Malawi
1	0	1	1	0	0	0	1	1	Niger
0	0	0	0	0	1	1	1	0	Botswana
0	0	1	1	1	0	1	1	0	Gambia
0	0	0	1	1	1	1	0	0	Kenia
0	0	0	1	1	1	1	1	0	Lesotho
1	0	1	1	1	0	0	1	0	Zambia

## Appendix C



**Figure C1:** Venn diagram for conditions PAF (P), Gender Working Group (G), free education (F), ODA/GNI (O) and SIGI (S).