

Improving Education through the Indonesian School Operational Assistance Program (BOS)



POLICY BRIEF

March 2015

The Indonesian school grants program (*Bantuan Operasional Sekolah - BOS*) is coming to the end of its first decade of operation. Over that period, the program has been continually improved and channeled ever larger amounts of funding directly to primary and junior secondary schools. Its success in delivering operational funding to schools has been replicated in other parts of the systems and by many local governments. By 2014, all levels of the education system from ECED to tertiary have a ‘BOS’ type program and around a third of all local governments implement similar programs.

The purpose of the policy brief is to assess whether the program has succeeded in contributing to expanded education access and improved quality. This policy brief outlines the main findings from a larger report assessing the role of BOS in improving education outcomes¹.

Improving education through the use of school grants

Education policy makers have increasingly recognized the importance of empowering schools to make their own decisions in the quest to improve education outcomes. Many countries have recognized that schools themselves are often in a better position than central government agencies to make effective decisions on some aspects of teaching and learning. This recognition has led to many countries introducing school based management reforms that aim to provide schools, and the communities they serve, with greater autonomy over their own affairs. These reforms have also supported stronger school accountability through the establishment of more inclusive school governing arrangements that include parents and the wider local community.

¹ Al-Samarrai, Fasih, Hasan and Syukriyah, 2014, Assessing The Role of the School Operational Grants Program (BOS) in Improving Education Outcomes in Indonesia. Washington D.C., World Bank.



Research shows that school grants have the potential to raise education outcomes

The focus on school based management has usually gone hand-in-hand with direct funding to schools to support improvement. Funding of this kind differs from regular public funding of schools as it gives the school a degree of discretion on how the funds are spent. It also provides schools with a predictable income stream which has greatly facilitated school improvement planning.

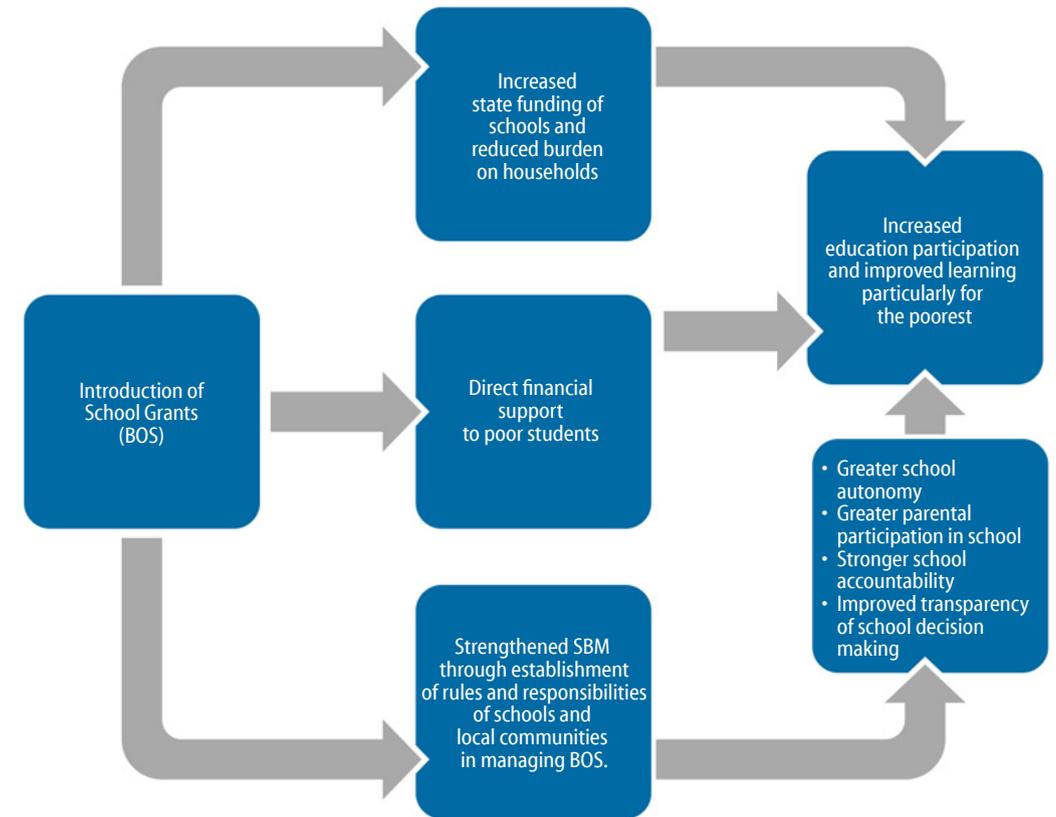
The extent of decision making and resources devolved to schools varies significantly across countries. For example, in Australia and the United Kingdom, schools are provided with and control decisions over all recurrent spending including teacher hiring. In other countries, school decision making is much more circumscribed. In Malaysia and Thailand, schools are provided with resources to cover only non-salary operating expenses. School funding of this kind also varies according to the level of discretion schools have over its use. In some cases, funding is provided with relatively few conditions while in other cases schools have to spend funds according to approved spending plans with limited scope to alter pre-agreed budgets.

School based management and school grant programs have shown some success in improving education access and raising education outcomes. Recent reviews of research exploring the impact of school based management reforms have shown that they have the ability to improve education access and learning outcomes as well as address education inequality.² However, education reforms of this kind can take time to yield results and their success depends critically on political support and effective implementation.

The *Bantuan Operasional Sekolah* school grants program succeeded a smaller school grant program introduced in the wake of the Asian Financial Crisis in 1997. The objectives of the program are to reduce the public's financial burden of education in the framework of providing 9-years of good quality compulsory education and to support school based management reforms. These objectives are designed to raise overall education outcomes through three main channels (see Figure 1).

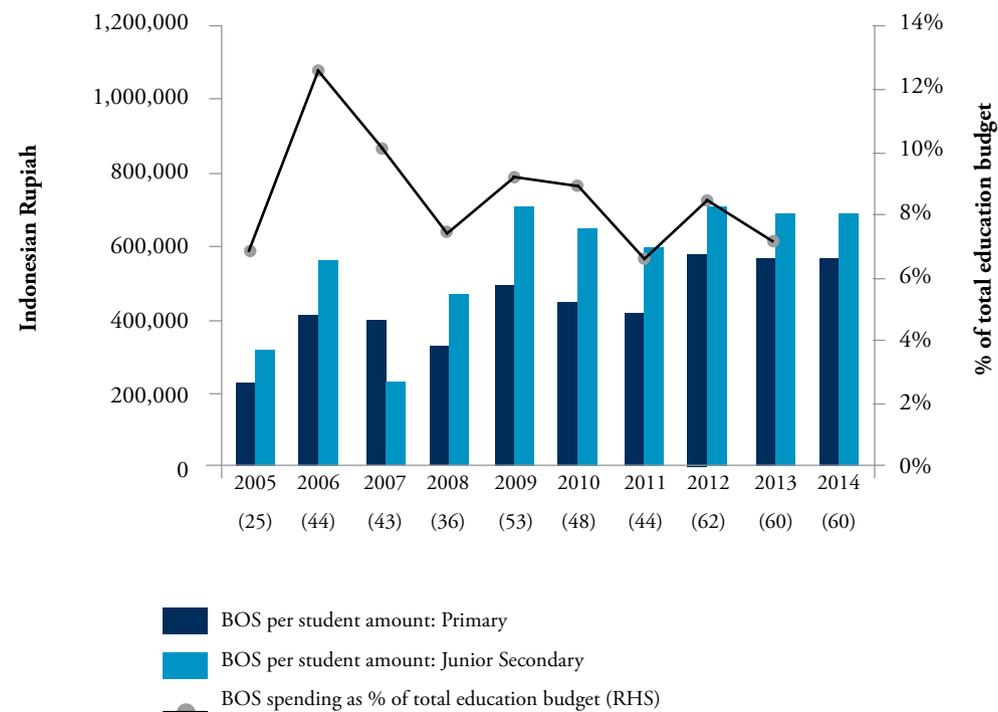
² See for example, AusAID ERF (2011). 'School grants and school-based management' and Bruns, B., D. Filmer, et al. (2011). Making schools work: new evidence on accountability reforms. Washington D.C., The World Bank.

Figure 1: Channels through which BOS improves education outcomes



The school grant is allocated based on an amount for each student and currently covers approximately 43 million primary and junior secondary school students. The real value of the per-student allocation has more than doubled since the introduction of the program in 2005 (Figure 2). In 2014, the BOS program provided funds to the average primary (junior secondary) school of approximately US\$10,000 (US\$ 20,000). The program is financed by the central government and allows schools to utilize funds according to lists of authorized and unauthorized categories of expenditure.

Figure 2: The value of BOS assistance for each student has increased considerably
BOS program allocations per-student and as a share of government spending, 2005-2014
 (constant 2012 prices)



Note: Until 2011, there was a slight difference between the BOS amount for rural and urban schools. In this figure, information for these years refers only to the rural school amount. Figures in parentheses are the US\$ equivalent of the primary per-student value of the BOS grant.
 Source: MoEC and MoF

The role of BOS in reducing the burden of education costs faced by households

Unpacking the role of BOS in reducing the education costs faced by households is difficult. The BOS program covered all primary and junior secondary schools and was introduced to all parts of Indonesia at the same time. This makes it difficult to use formal methods to evaluate the effect of BOS and out of necessity a second-best approach is adopted. The first step of the approach looks to see whether the introduction of and subsequent changes in the BOS grant amount had any discernible effect on overall household education spending. Second, simple regression analysis is used to see if a 'BOS' effect remains after a set of other explanatory factors (e.g. household income) are controlled for. Finally, trends in household education spending at primary and junior secondary schools, where the BOS program operated, are compared with trends in senior secondary to identify any differences. It is recognized that this approach cannot provide definitive conclusions on the effect of the BOS program but can provide some insights into its overall effect.

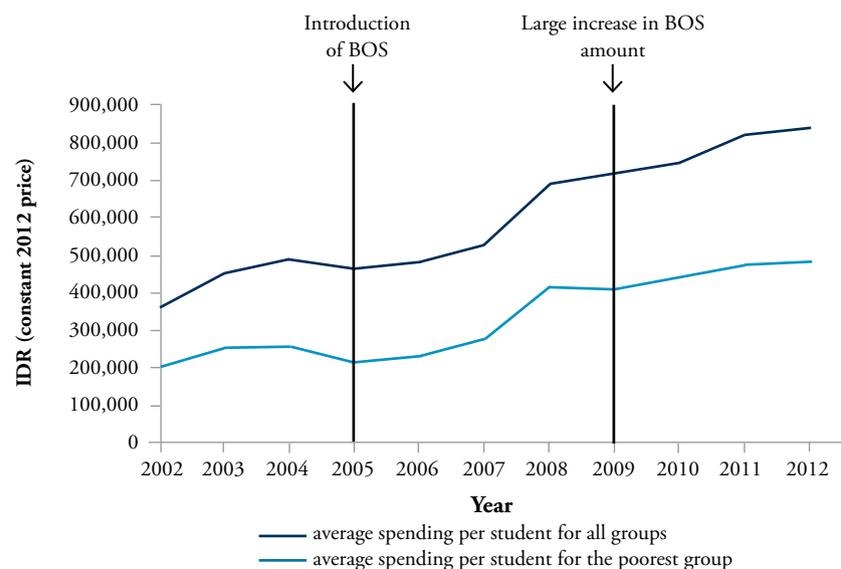
Looking at overall trends suggests that the BOS program was initially associated with a drop in household education spending (Figure 3). Looking at survey data reveals that annual education spending for households with children in primary and junior secondary fell by about 6 percent in the first year after BOS was introduced. However, the drop in education spending appeared to be a relatively temporary phenomenon; by 2009 household education spending began to increase steadily again. These findings, outlined in the report, support other more detailed results showing that the incidence and level of charges made on parents fell with the introduction of BOS but then began to rise as schools became more familiar with the workings of the BOS program.



The level of school charges faced by households fell with the introduction of BOS

Figure 3: The introduction of the BOS program led to an initial drop in education spending by households

Annual household per-student education spending, 2002-2012



Note: (1) Average education spending per-student for households with primary and junior secondary education children. (2) Year here refers to academic year
Source: Susenas household survey, 2003-2013

A closer look also reveals that initial drops in household spending were concentrated amongst poorer households and for children attending government schools. The general pattern shown in Figure 3 remains even after other factors that are likely to have influenced household education spending (e.g. levels of household income) are controlled for. Moreover, drops in household education spending directly after the introduction of the BOS program were relatively larger for the poorest 20 percent of households in Indonesia. The analysis contained in the report also reveals that declines were largely confined to government schools where the program was more strongly associated with reducing the cost burden of sending children to school.

Household education spending trends at senior secondary did not follow the same pattern which provides some evidence to suggest that BOS reduced costs for at least some households. In the immediate period after the introduction of BOS household education spending per senior secondary school student continued to increase. This stands in contrast to per-student spending at the primary and junior secondary which registered small declines. These findings provide some tentative support to the perception that BOS reduced household costs.

However, the drop in education costs faced by households appears to have been relatively small compared to the size of the per-student grants given to schools. While the analysis is only indicative it suggests that where overall drops in household per-student spending occurred they were relatively small, particularly at primary school, when compared to the per-student amount given to schools through BOS. Drops in household spending for the poorest households were equivalent to around 5 percent of the BOS grant at primary school and around 30 percent at the junior secondary level.

The limited use of BOS funding to reduce charges faced by households is further supported by the significant increase in discretionary resources schools appeared to have after the introduction of BOS. It is possible that BOS only had a limited effect on the costs facing households because other sources of school funding fell when BOS was introduced. For example, local governments may have reduced their funding to schools in response to the BOS program. Unfortunately, no detailed time-series information on school funding is available. However, information on the number of teachers hired directly by schools, before and after BOS provides important evidence on how the overall school funding situation changed. In 2012, there were approximately six hundred thousand school hired teachers in the education system and approximately half of these were recruited after the introduction of the BOS program. This suggests that schools had more resources to spend after BOS was launched and they devoted a share of these resources to hiring additional teachers.

Drops in household education spending were relatively small compared to the level of BOS support



Improving education participation through the BOS program

Simple time trends show that enrolment in junior secondary, particularly for the poorest households, increased significantly after the introduction of the BOS program. The reduction in household education costs were intended to raise education participation, particularly amongst the poorest groups. The same approach that was used to look at how BOS affected household education spending is used to explore its effect on education participation. Enrolment rates in primary school have been very high for a considerable time and it is therefore unlikely that BOS has had any discernable effect (Figure 4). However, enrolment rates in junior secondary have been on an upward trend which appears to have accelerated after the introduction of BOS particularly for the poorest. Between 2000 and 2005, junior secondary enrolment rates for the poorest 20 percent remained relatively stable but increased 26 percentage points between 2005 and 2013.

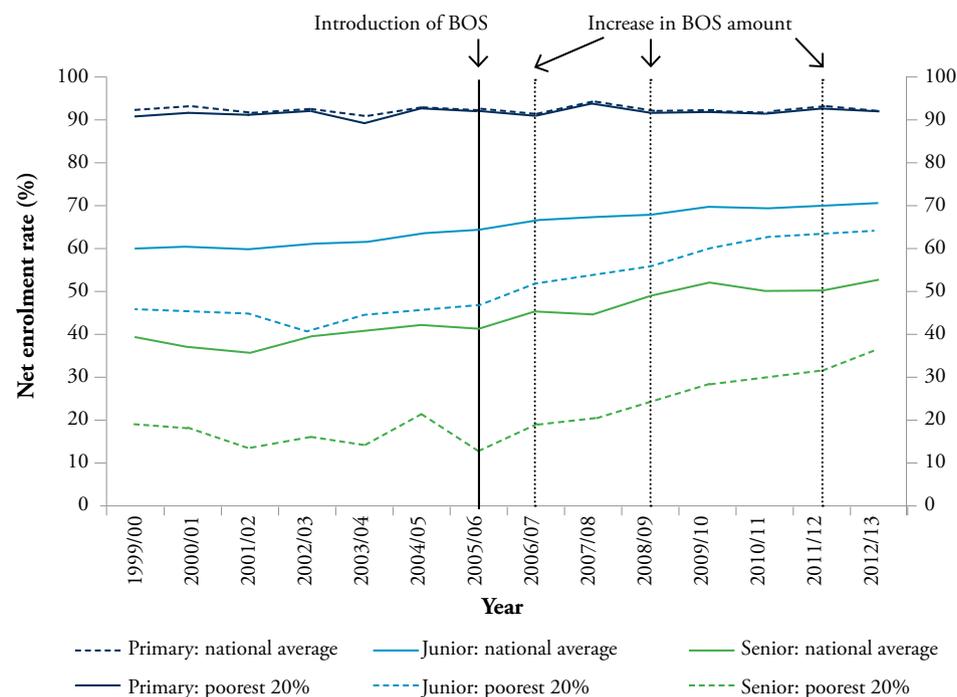
More detailed analysis tentatively suggests that the BOS program may have initially contributed to the increase in junior secondary school enrolment amongst poor households. The analysis undertaken in the report attempts to control for a host of other factors that may have contributed to the trend in participation rates. After controlling for these variables a large increase of around 5 percentage points is registered, for the poorest households, in junior secondary enrolment rates directly after the introduction of BOS. This effect seems to have also been temporary and enrolment rates settled back onto a long term trend that did not fluctuate with subsequent increases in the per-student amount of the BOS grant. Further support for these findings comes from the different rate at which poor households closed the participation gap in junior and senior secondary schools (Figure 4).

However, transition rates were also examined for a similar effect but this analysis did not find a similar jump in participation at the time BOS was introduced. Enrolment rates are only one measure of the potential effect of BOS on school participation. The program was expected to improve the chances of all children completing the full nine years of compulsory education by improving transition rates between primary and junior secondary education. Transition rates of this kind have indeed increased since the introduction of BOS and have followed a similar trend to the enrolment rates shown in Figure 4. However, further analysis shows that the introduction of the BOS program and subsequent increases in its level were not associated with jumps in transition rates.



Junior secondary enrolment rates rose rapidly after the introduction of BOS

Figure 4: Enrolment in secondary schooling has been growing
Primary, junior and senior secondary net enrolment rates, 2000-2013



Source: Susenas household survey

Selection procedures for school committee members are not very transparent



The role of BOS in supporting school based management

The BOS program has been a vital component of government efforts to implement school based management reforms. In 2001, the responsibility for basic education service delivery was largely devolved to local governments. Further reforms were introduced in 2003 that provided the legal basis for school based management and school committees in an effort to encourage local community participation and strengthen accountability between schools and parents. The BOS program supported these reforms by providing resources to fund school improvement plans and by making use of established school based management structures and processes to govern the use of its funds.

Evidence from Indonesia shows that improvements in school based management can raise levels of learning achievement. For example, a recent study found that primary schools with better parental and school committee participation had better learning outcomes. The study showed that the effects of better school based management worked through improved resource allocation decisions and higher teacher attendance rates.³

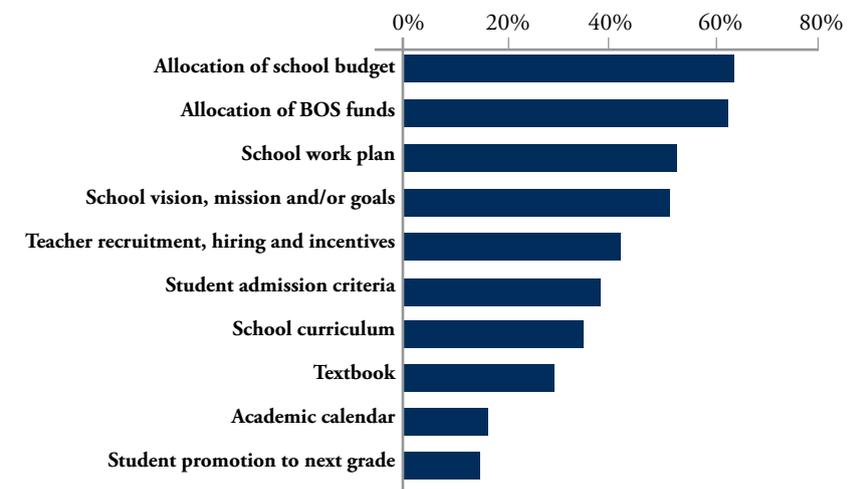
Most schools in Indonesia have the institutions and processes required for school based management. A nationally representative survey conducted to explore school based management issues showed that all schools had established school committees. However, the selection of committee members was not very transparent. For example, in primary schools members were commonly either appointed or selected by consensus; less than 15 percent of school committee chairs and less than 25 percent of committee members were elected.

Principals reported that they had considerable autonomy over a number of important areas of their schools' affairs. For example, almost all interviewed principals felt that they set the overall vision and goals of the school and were the final decision maker on school planning and budget decisions. In making decisions, school principals typically involved school teachers in the process. However, it was less common for school committees to be involved. A national survey of primary and junior secondary schools estimated that school committees were involved in about 40 percent of the decisions made at the school level.

³ See for example, Chen, D. (2011). 'School-based management, school decision-making and education outcomes in Indonesian primary schools'. Policy Research Working Paper No. 5809. The World Bank and Heyward, M. O., R. A. Cannon, et al. (2011). 'Implementing school-based management in Indonesia: impact and lessons learned.' Journal of Development Effectiveness

While school committee participation was less commonplace, their strongest role centered around the use of BOS funds and overseeing financial matters more generally. In 2010, more than 60 percent of school principals reported that school committees were involved in final decision making in these areas (Figure 5). Perhaps unsurprisingly, school committees were rarely involved in decisions about pedagogy and instructional issues. These findings highlight the importance of the BOS program in opening up school decision-making to the broader school community.

Figure 5: School committees play their strongest role in decisions over the allocation of the school budget and participation in key decisions
% of primary and junior secondary schools where school committee is involved in final decision in selected areas, 2010



Source: School Based Management Survey, 2010

Despite the role that BOS has provided for school committees, there are significant weaknesses in how effective they have been. Focus group discussions, conducted as part of the survey, with the BOS team and school committee members generally agreed that committee members were rarely, if ever, actively involved or consulted in making BOS fund allocation decisions. In practice, it was more common for the school principal and teachers to agree on the allocation of BOS funds and then to communicate their decision to the school committee chair for approval.



About a half of BOS funds have gone to hiring non-civil service teachers and paying teachers for additional activities

The role of the school committee in managing BOS funds is further weakened by the requirement for schools to establish a separate BOS management team. While BOS management has generally aligned with existing school governance arrangements it also introduced an additional team to manage BOS funds. Rules on the formation of this team explicitly prohibit membership for parents from the school committee. The school based management survey found that about 70 percent of primary schools had established these teams. Given that all schools already have school committees, a separate team for the management of BOS funds dilutes the potential role of the school committee and introduces a lack of clarity into the management of the BOS program.

Weaknesses in the role of the school committee in the oversight of BOS funds are likely to have contributed to the limited effectiveness of BOS spending on raising education quality. Limited oversight and participation of local communities in deciding the use of BOS funds has meant that around a half of all BOS funds have gone to hiring non civil-service teachers and paying teachers for additional activities. Given the very low student-teacher ratios seen in primary and junior secondary education it is questionable whether, in many cases, hiring additional teachers is the best use of BOS funds.

Strengthening the BOS program and potential future directions

The report shows that the BOS program had a temporary and small effect on the costs faced by households. These findings were strongest amongst the poorest households and for households who sent their children to government schools. While these findings are promising they suggest the need to explore ways in which BOS can more effectively support the education outcomes of poor households in Indonesia. In particular, the report shows that the real value of BOS can be much smaller in poorer regions of Indonesia once geographical cost differences are accounted for.

Results on student participation were less conclusive but suggest that the program may have contributed, at least initially, to increases in junior secondary school enrolment rates. Notwithstanding the contribution of BOS, enrolment in primary and junior secondary school is high and continues to rise. This suggests that it may be timely to consider a greater focus on quality in terms of the objectives of the BOS program.

The BOS program has also supported efforts to provide schools with more autonomy and to strengthen links with local communities. In other countries, school based management reforms have improved educational attainment and in some cases levels of learning achievement. However, it is not clear that these gains have so far been realized in Indonesia. In particular, these weaknesses manifest themselves in the relatively inefficient use of funds evident in the large amount devoted to hiring additional teachers. These findings suggest that greater efforts are needed to establish and deepen the implementation of school based management if outcomes are to be improved through this route.



Greater efforts are needed to deepen school based management reforms



In the future, BOS needs to focus more on improving the quality of education

From the findings of the larger report summarized here in the policy brief a number of policy directions are suggested and include:

1. Adjusting BOS to enhance its focus on improving education quality

- *Link BOS funding more directly to education standards.* Efforts have been made in the past to set the value of per-student financing provided under BOS to minimum service standards. Establishing a more formal link between BOS funding and education standards has the potential to signal the importance of using BOS resources to fulfil these standards. BOS funding could also be tied to quality assurance systems by providing an incentive for schools to obtain and maintain accreditation status.
- *Review list of eligible items under BOS to provide schools with the flexibility to invest in quality enhancing inputs.* For example, allow BOS funds to be used to purchase teaching and learning materials such as audio-visual equipment.

2. Strengthen the poverty focus of BOS

- *Adjust the value of BOS periodically to account for regional price differences and inflation to ensure that all schools can meet operating standards.* Indonesia is a large and diverse country and providing the same amount of per-student funding to schools in areas with high costs is unfair. At the minimum, consideration should be given to adjusting the BOS funding formula periodically for geographical cost differences and inflation.
- *Use the BOS formula to provide more funding to schools serving poor and vulnerable children.* Schools serving poor and disadvantaged students need additional support to ensure that they are able to provide a quality of schooling similar to schools in wealthier areas of Indonesia.
- *Phase out the use of BOS resources to support the 'out of pocket' expenses of poor students.* Existing guidelines on BOS allow schools to cover the education costs of poor households. However, large cash transfer programs (e.g. *Kartu Indonesia Pintar*) already exist that are perhaps more effective at supporting these costs. While these programs require strengthening, they should be the principal way of reducing the direct costs of schooling.

3. Improve coordination of BOS with other school funding

- *Clarify school fee and contribution policy.* Despite government efforts to provide clear guidelines, survey data reveal that fees and charges continue to represent a significant proportion of 'out-of-pocket' expenses. Efforts to clarify the rules governing voluntary contributions to schools should continue and consideration should be made to strengthening the role of school committees in managing the level of contributions. Regulations should also be clearly communicated to parents and other stakeholders.
- *Coordinate more closely with local governments.* Many local governments also run school grant programs to support school operating expenses beyond basic BOS funding. It is important that these funds are used to raise overall school standards beyond the level provided by BOS.

4. Revitalize the role of the BOS program in empowering schools and local communities.

- *Strengthen school committees.* Strengthening school-level management of the funds to improve their effectiveness is vital. Strengthening the role of the school committee by for example, transferring responsibilities of the BOS team to the committee and ensuring better representation in the committee have the potential to significantly improve the effectiveness of BOS funds.

The introduction of BOS type programs in ECED, senior secondary and tertiary education is testament to the success of the BOS program. In the nearly 10 years it has been running it has established itself as a program that is able to deliver resources to schools on a regular and timely basis. It is popular amongst parents and is becoming increasingly well known.

Other countries having successfully established school grant programs and their financing mechanisms have further developed them to address other education challenges. For example, programs of this kind have been used to consolidate the different channels of funding schools receive. In particular, other countries have included teacher salary costs in funding formula which has contributed to better spending efficiency.

Studies have shown that Indonesia suffers from significant budget fragmentation in its school financing system which contributes to the large and growing spending inefficiencies. Consolidating a larger share of their budgetary resources, and in particular teacher remuneration, into BOS type formulas could be useful for local governments striving to improve spending efficiency and sustainability.

The central government could also consolidate more of its funding into the BOS program and provide a greater share of funds directly to schools. Alternatively, formula funding mechanisms of this kind could be used as part of the broader inter-governmental transfer system to allocate central government education funds (including BOS) to local governments. Local governments could then add this to their own resources and allocate funding to schools on basis of a single formula. Given its initial success it is perhaps timely to explore how the program and the mechanisms it has introduced for allocating and managing resources can be adapted to make an even bigger contribution to improving education outcomes in Indonesia.

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