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# Local Governance and Education Performance:

## A Survey of the Quality of Local Education Governance in 50 Indonesian Districts

East Asia and Pacific Region
Human Development

Building the Foundation for Inclusive Growth


KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN
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# List of Abbreviations

| | | |
|---|---|---|
| APEC | Kerjasama Ekonomi Asia Pasifik | Asia Pacific Economic Cooperation |
| APBD | Anggaran Pendapatan dan Belanja Daerah | Provincial or District Government Budget |
| ASEAN | Perhimpunan Negara-negara Asia Tenggara | Association of South East Asia Nations |
| AusAID ERF | Badan Kerjasama Pembangunan Internasional Australia – Fasilitas Sumberdaya Pendidikan | Australian Agency for International Development – Education Resource Facility |
| BAPPEDA | Badan Perencanaan Pembangunan Daerah | Regional Body for Planning and Development |
| BEC Program | Program Pengembangan Kapasitas Pendidikan Dasar | Basic Education Capacity Program |
| BOS | Bantuan Operasional Sekolah | School Operational Assistance (Provided by the Central Government) / National School Grants |
| BOSDA | Bantuan Operasional Sekolah Daerah | BOS Supplementary Funding / Local School Grants |
| BPK | Badan Pemeriksa Keuangan | Supreme Audit Agency |
| BPS | Badan Pusat Statistik | Central Bureau of Statistics |
| DAK | Dana Alokasi Khusus | Special Allocation Fund |
| Dana Otsus | Dana Otonomi Khusus | Special Autonomy Fund |
| DAU | Dana Alokasi Umum | General Allocation Fund (Central Transfer to Regional Budgets in the form of an Unrestricted Block Grant) |
| DBE | Desentralisasi Pendidikan Dasar | Decentralized Basic Education |
| DEO | Dinas Pendidikan Daerah (Kabupaten) | District Education Office |
| DFO | Badan Pengelolaan Keuangan dan Aset Daerah/ Dinas Pendapatan, Pengelolaan Keuangan dan Pendapatan dan Aset Daerah | District Financial Office |
| DID | Dana Insentif Daerah | Regional Incentive Fund |
| D-IV | Diploma IV | Diploma IV (Equivalent to Bachelor's Degree) |
| DPIU | Unit Pelaksana Program Kabupaten/Kota | District Program Implementation Unit |
| DPPKAD | Dinas Pendapatan, Pengelolaan Keuangan dan Aset Daerah | Office of Income/Revenue, Financial Management and Regional Property |
| ECED | Pendidikan dan Pengembangan Anak Usia Dini | Early Childhood Education and Development |
| EPEA | Analisis Belanja Publik Pendidikan | Education Public Expenditure Analysis |
| ESP | Pelayanan Pendidikan | Education Service Provision |

| | | |
|---|---|---|
| ERU | Efisiensi Penggunaan Sumber Daya | Efficient Resource Use |
| GASING | GAmpang ASyik menyenaNGkan | Easy, Fun, Enjoyable |
| HDI | Indeks Pembangunan Manusia | Human Development Index |
| ICT | Teknologi Informasi dan Komunikasi (TIK) | Information and Communication Technologies |
| IDR | Rupiah | Indonesian Rupiah |
| ILEG | Tata Kelola Pendidikan Pemerintah Daerah | Indonesian Local Education Governance |
| ILEGI | Indeks Tata Kelola Pendidikan Pemerintah Daerah | Indonesian Local Education Governance Index |
| JARDIKNAS | Jaringan Pendidikan Nasional | National Education Network |
| KPI | Indikator Kinerja Kunci | Key Performance Indicators |
| KPPOD | Komite Pemantauan Pelaksanaan Otonomi Daerah | Regional Autonomy Watch Committee |
| L-BEC | Pengembangan Kapasitas Pendidikan Dasar Daerah | Local Basic Education Capacity |
| LG | Pemerintah Daerah | Local Government |
| LGCA | Penilaian Kapasitas Pemerintah Daerah | Local Government Capacity Assessment |
| MCS | Sistem Pengendalian Manajemen | Management Control System |
| MI | Madrasah Ibtidaiyah | Islamic Primary School |
| MIS | Sistem Informasi Manajemen | Management Information System |
| MoEC | Kementerian Pendidikan dan Kebudayaan | Ministry of Education and Culture |
| MoF | Kementerian Keuangan | Ministry of Finance |
| MUSRENBANG | Musyawarah Perencanaan Pembangunan | Development Planning Consultative Meeting |
| MTs | Madrasah Tsanawiyah | Islamic Junior Secondary School |
| NER | Angka Partisipasi Murni | Net Enrollment Rate |
| NUPTK | Nomor Unik Pendidik dan Tenaga Kependidikan | Unique Identification Number for Teachers and Teaching Personnel |
| OECD | Organisasi untuk Kerjasama Ekonomi dan Pembangunan | Organization for Economic Cooperation and Development |
| PADATI | Pangkalan Data dan Informasi Pendidikan | Educational Data and Information Infrastructure |
| PAS | Paket Aplikasi Sekolah | School Application Package |
| Perda | Peraturan Daerah | Local Regulation |
| PIRLS | Studi Internasional tentang Literasi Membaca | Progress in International Reading Literacy Study (PIRLS) |
| PNS | Pegawai Negeri Sipil | Civil Servant |
| Poltera | Politeknik Negeri Madura | Madura Polytechnic |

| | | |
|---|---|---|
| PRIORITAS | (Program yang) Mengutamakan Pembaharuan, Inovasi, dan Kesempatan Bagi Guru, Tenaga Kependidikan dan Siswa | Prioritizing Reform, Innovation, and Opportunities for Reaching Indonesia's Teachers, Administrators, and Students |
| Rakornis | Rapat Koordinasi Teknis | Technical Coordination Meeting |
| RENJA SKPD | Rencana Kerja Satuan Kerja Perangkat Daerah | Workplan of Regional Government Work Unit |
| Renstra | Rencana Strategis | Strategic Plan |
| RKPD | Rencana Kerja Pemerintah Daerah | Annual Local Government Workplan |
| RKS | Rencana Kegiatan Sekolah | School Work Plan/School Action Plan |
| RPJMD | Rencana Pembangunan Jangka Menengah Daerah | Regional Medium-term Strategic Plan |
| SD | Sekolah Dasar | Primary School |
| SEKDA | Sekretaris Daerah | Regional (District) Secretary |
| SKPD | Satuan Kerja Perangkat Daerah | Regional Government Work Unit |
| SMA | Sekolah Menengah Atas | Senior Secondary School |
| SMK | Sekolah Menengah Kejuruan | Vocational Secondary School |
| SMP | Sekolah Menengah Pertama | Junior Secondary School |
| SUSENAS | Survei Sosial Ekonomi Nasional | National Socio-economic Survey |
| S1, S2, S3 | Sarjana 1, Sarjana 2, Sarjana 3 | Degree equivalent to Bachelor's Degree, Master's Degree. and PhD/Doctoral's Degree respectively |
| T&A | Transparansi dan Akuntabilitas | Transparency and Accountability |
| TIMSS | Studi Internasional tentang Matematika dan Ilmu Pengetahuan Alam | Trends in International Mathematics and Science Study (TIMSS) |
| TRIMS | Aplikasi Pelaporan dan Manajemen Informasi Sekolah | Tool for Reporting and Information Management by Schools |
| UN | Ujian Nasional | National Exam |
| UNCEN | Universitas Cenderawasih | Cenderawasih University Jayapura |
| UNIPA | Universitas Negeri Papua | State University of Papua |
| UPTD Pendidikan | Unit Pelaksana Teknis Daerah Pendidikan | Regional Technical Implementation Unit of Education (Sub-District Education Office) |
| USAID | Badan Bantuan Pembangunan Internasional Amerika | United States Agency for International Development |
| UTM | Universitas Trunojoyo Madura | University of Trunojoyo Madura |
| WAPIK | Wahana Aplikasi Pendidikan dan Informasi yang Baik | Online Good Practices Sharing Application |
| WTP | Wajar Tanpa Pengecualian/Catatan | Unqualified (Clean) Opinion |
| | Bupati | Head of District |
| | Madrasah | Islamic School |

# Executive Summary

In the last 15 years, Indonesia has introduced a comprehensive package of education reforms designed to expand access and improve quality. A key component of the reform process has been the devolution of responsibility for basic education services to local governments and schools. These reforms, coupled with an unprecedented increase in government investment in education have resulted in significant improvements in education access particularly for the poorest children. However, improvements in learning achievement have been more modest and children still leave school with inadequate skills for the needs of the labor market. As with other education systems around the world, improving the quality of basic education continues to be a central challenge.

Strengthening the capacity of local governments to manage their education systems effectively is vital if efforts to raise education quality are to be successful. The ability of local governments to deliver good quality basic education services varies considerably across Indonesia. Identifying the key dimensions of governance that underpin effective education service delivery can provide a starting point for addressing existing weaknesses and raising education performance.

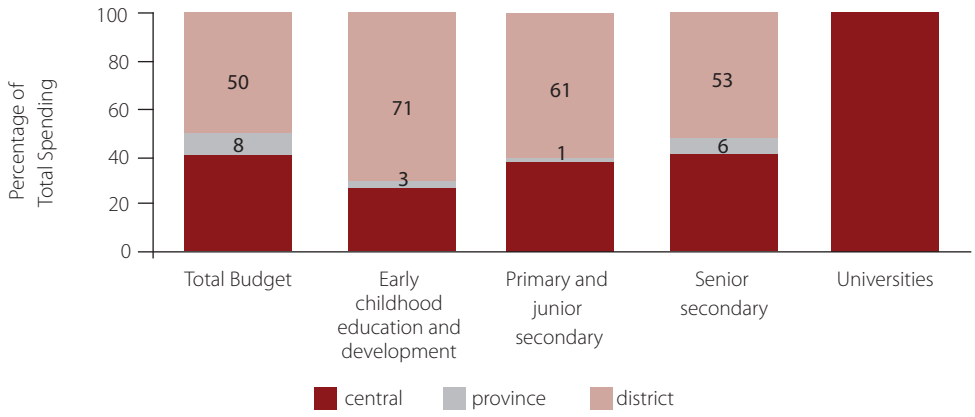
The main purpose of this report is to assess the state of local education governance in a sample of Indonesian districts and how it affects education performance. The study uses a unique survey of 50 local governments conducted in 2009 and 2012, coupled with district level information from household surveys, to identify patterns and explore trends in the relationship between governance and education outcomes. The report also explores the effects of a large donor supported program that aimed to strengthen the capacity of local governments.

## Why is local education governance important for improving performance?

Decentralization has put local governments, particularly district administrations, at the heart of basic education service delivery. District responsibilities include the overall management of the education system, the licensing of schools and the planning and supervision of the teaching force. Districts also provide the bulk of public financing for primary and junior secondary schools (see Figure 0.1).

**Figure 0.1 Local governments provide the bulk of education financing for basic education**

*Government spending on education by level, 2009*




*Source:* World Bank staff estimates based on MoF and APBD data

Since district governments play a central role in delivering basic services, their capacity to manage their education systems effectively is a key determinant of performance. Educational opportunities vary enormously across Indonesian districts; national examination scores at primary in 2009 varied from a low of 48 percent in Sumba Barat Daya in the province of Nusa Tenggara Timur to a high of 83 percent in Kota Mojokerto in Jawa Timur province. Poverty, geography and other socio-economic factors explain some of this variation but research has shown that the quality of local governance is also important. In particular, studies have shown that education outcomes are better in districts that have more effective planning and budgeting systems and have lower levels of perceived corruption. These findings suggest that efforts to improve education outcomes will need to address weaknesses in local governance to be successful.

## What is the Indonesian Local Education Governance (ILEG) survey?

In order to assess the state of local education governance, a survey was conducted in 50 districts (9 provinces) in 2009 and 2012. The participating districts were selected by the Ministry of Education and Culture to take part in the Basic Education Capacity (BEC) Development project. The survey aimed to:

1. Provide an assessment of district capacity to deliver basic education services
2. Explore the relationship between governance and district education performance
3. Track recent changes in education governance
4. Assess the effect of donor-supported capacity building activities on governance

The survey consisted mainly of a set of questionnaires that were administered in all relevant district departments. Information was collected through a combination of interviews with key respondents and reviews of relevant documentation. In 2012, qualitative case studies were also carried out in four of the selected districts in an attempt to gain a deeper understanding of changes in governance.

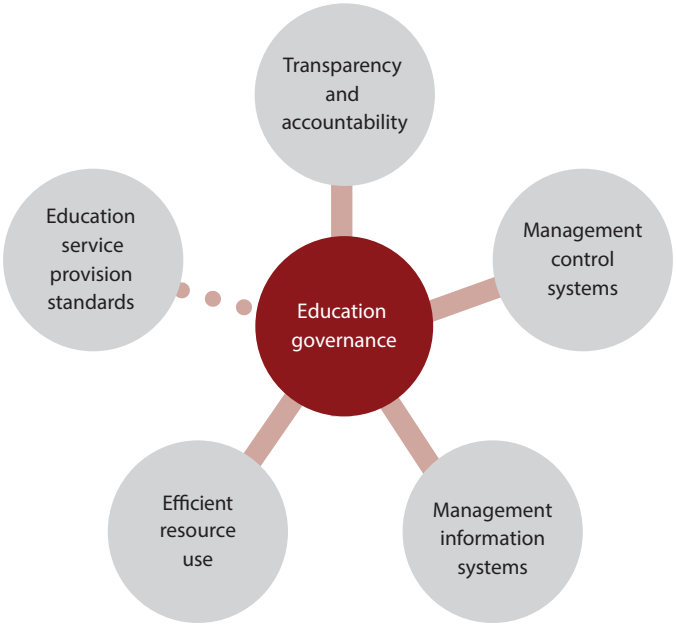
The districts participating in the ILEG survey are not representative of Indonesia as a whole. The districts that participated in the survey tended to be poorer than other districts but had similar levels of education access and achievement.

## How is education governance measured?

Education governance is broken down into four key dimensions that seek to measure the effectiveness of local government institutions associated with the delivery of education services. For the purposes of the monitoring of the overall BEC program a fifth component, education service provision, is also included and aims to measure overall district education performance.

- **Transparency and accountability.** The practices and regulatory efforts made by local governments to enable transparent, accountable and participatory governance of the education sector.
- **Management control systems.** Assesses the extent to which systems are in place to incorporate decisions made by local and school level planning processes into annual district education work plans.
- **Management information systems.** Measures the availability of good quality information on local education systems that can be used for education planning and monitoring processes.
- **Efficient resource use.** Establishes whether the systems are in place to effectively plan, budget and monitor resource use.
- **Education service provision standards.** This set of indicators provides a picture of the level and quality of primary and junior secondary education services in the district.

**Figure 0.2 Dimensions of education governance measured by the Indonesian Local Education Governance (ILEG) survey**



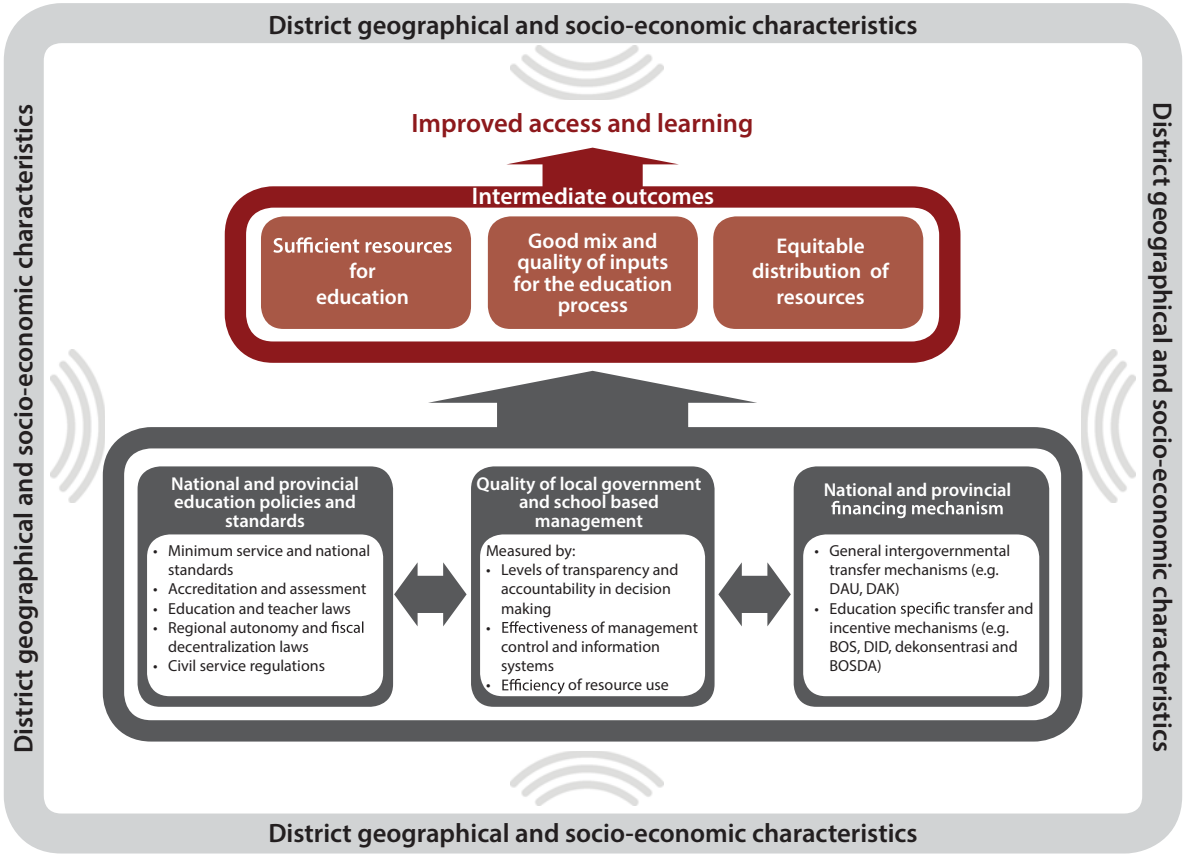

For each dimension, a set of indicators is used to evaluate the quality of local governance. Indicators are weighted according to whether they are measures of regulatory compliance, process or performance. Indicators of performance are given the highest weight and regulatory indicators the lowest. In order to summarize the quality of local governance, the set of indicators in each area is combined into a sub-index. For example, the sub-index for transparency and accountability is a weighted average of ten indicators. These sub-indices are averaged to construct the ILEG index which is an overall measure of the quality of local education governance.

## What are the main findings?

1. **Better education governance is associated with better education performance**

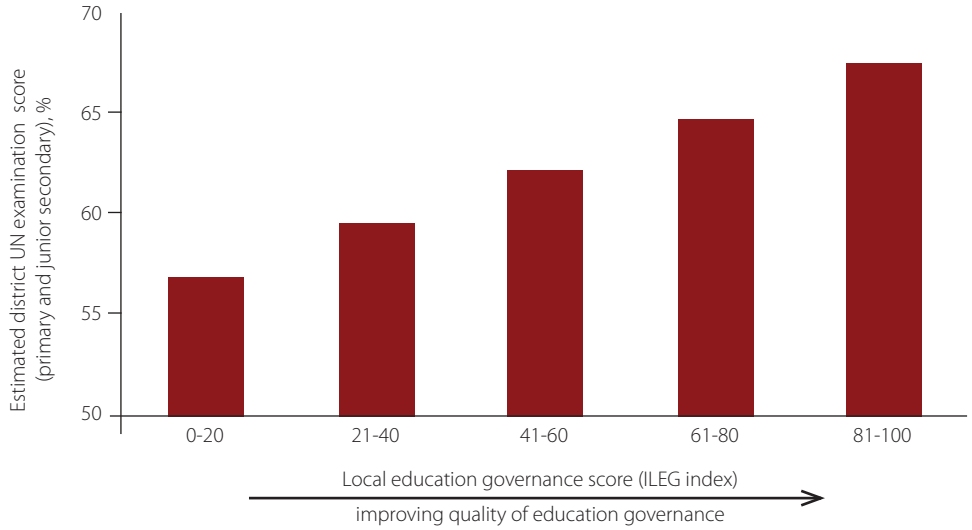
   The study explores the association between the quality of local governance and education performance using the framework outlined in Figure 0.3. It uses regression analysis to try and isolate the association between the quality of local governance and intermediate (e.g. local government decision variables such as levels of education spending and the quality and distribution of key education inputs) and final (e.g. basic education net enrolment rates and examination scores ) education performance indicators.

**Figure 0.3 A framework for exploring district education performance**




The results of the analysis show that decisions on the priority given to education, the quality of the inputs provided and their distribution tend to be better in districts with higher quality governance. For example, districts with a better ILEG index tend to have more qualified teachers and these teachers are more equitably distributed. These results remain even after other factors (e.g. poverty, age of the district etc.) are controlled for. Intermediate outcomes are also positively related to education enrolment rates and examination scores. Districts that devote a greater share of their budgets to education and hire more qualified teachers, for example, tend to have better enrolment rates and examination scores. Putting the results together suggests that better quality local governance is associated with better education performance (Figure 0.4).

**Figure 0.4 Higher quality local education governance is associated with better education performance**

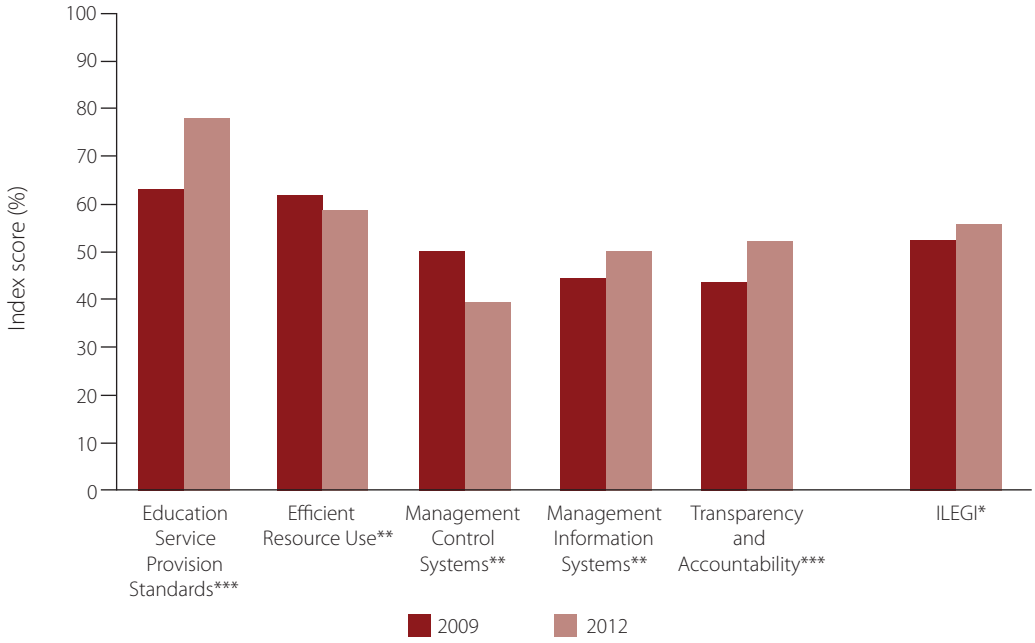



*Note:* The results presented here show the estimated relationship between the ILEG index and the UN examination score having controlled for other factors that could determine district examination scores (e.g. poverty levels). See Appendix 4, Table 1 for the full results.
*Source:* Indonesian local education governance survey, 2009 and 2012

**2. There were modest improvements in education governance between 2009 and 2012 but weaknesses remain**

Education governance has improved between 2009 and 2012 but overall these improvements have been small (Figure 0.5). The overall ILEG index increased by 3 percentage points and the quality of local education governance remains firmly in the middle of the performance range. However, there have been some notable shifts in the distribution of districts along the performance range. The percentage of districts that were classified as low performers in terms of governance (with ILEG index scores of 45 percent or less) fell from 28 percent to 16 percent. These results show that district governments are moving in the right direction albeit slowly.

**Figure 0.5 Small overall improvements in education governance but big shifts in some dimensions**




*Note:* Asterisks indicate the level of statistical significance of a test between the 2009 and 2012 indices - *** - significant at the 1 percent level, ** - significant at the 5 percent level, * - significant at the 1 percent level.
*Source:* Indonesian local education governance survey, 2009 and 2012

The overall ILEG index masks differences across the specific areas of governance measured by the survey. Local governments appear to perform strongly in terms of the education service provision standards the survey measured. However, districts were rated relatively poorly on the effectiveness of their management control systems and districts were rated as only average in the quality of their management information systems and in the processes they had in place to make education decision-making transparent and accountable.

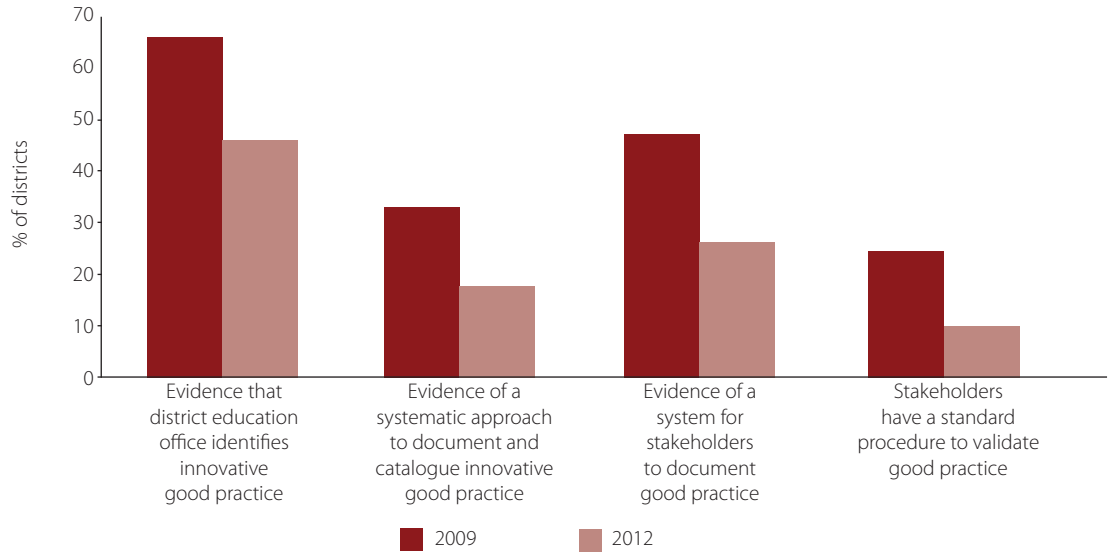
**3. Improvements were seen in the quality of education management information systems and processes to strengthen transparency and accountability**

Despite the weaknesses in management information systems and transparency and accountability identified by the survey, some progress has been made (Figure 0.5). In terms of transparency and accountability, improvements were observed in the efforts that local governments have made to encourage greater community participation in decision making and oversight activities. For example, between 2009 and 2012 the proportion of districts that allowed public participation in parliamentary accountability and audit reporting sessions increased from 14 percent to 52 percent. However, in 2012, only half of the surveyed districts allowed public access to parliamentary budget and audit discussions.

Accurate and timely information is vital for effective planning and monitoring of local education systems. Local governments registered some modest improvements in this area between 2009 and 2012. For example, a slightly higher number of district education offices had written procedures and protocols for data collection and verification in 2012 than in 2009. However, only about a third of all districts had these systems in place by 2012 and this is a contributory factor in the large discrepancies seen in key district education variables when different data sources are compared.

4. **Weaknesses in the way districts manage and use their education resources appear to have grown**
The deterioration of the effectiveness of management control systems was largely the result of a drop in the number of districts that systematically documented and disseminated examples of innovation and best practice (Figure 0.6). For example, in 2009 two-thirds of districts made efforts to identify and document good practice whereas in 2012 this had fallen to less than a half. Other components of this dimension of governance also appear to be weak. In 2012, only 12 percent of districts consolidated school development plans to use in their district education planning process. This undermines school based management reforms which have encouraged schools to develop plans as part of a bottom-up planning process designed to link district resources more closely to the needs of schools.

**Figure 0.6 District capacity to catalogue and disseminate good practice has declined**



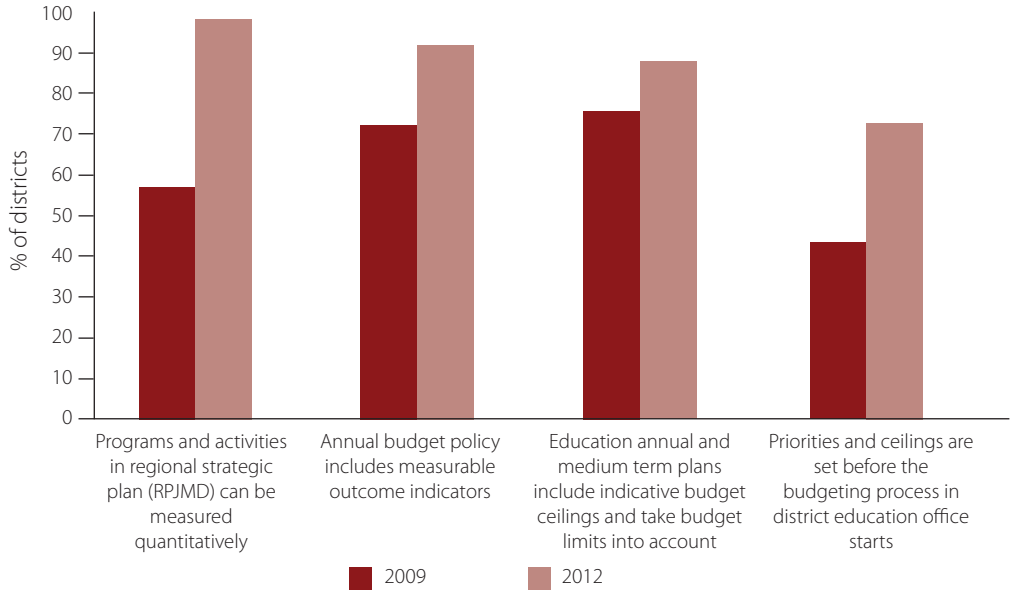

*Source:* Indonesia local education governance survey data, 2009 and 2012

Despite these setbacks, some aspects of management control have improved over the last few years. In particular, asset management systems appear to have been strengthened and a greater proportion of districts are carrying out yearly stock inventories and have passed local legislation on asset management.

The factors underlying the decline in the dimension of governance associated with efficient resource use are more complex. This area of governance is most closely associated with an assessment of the effectiveness of district education offices to plan, budget and monitor the use of education resources. A key indicator of effectiveness in this area is the difference between planned and realized education spending. This indicator deteriorated between 2009 and 2012; the number of districts reporting gaps between planned and realized spending of less than 10 percent over the last three years fell from 46 percent to 32 percent. However, the large adjustments in the revised budgets are partly due to revisions in intergovernmental transfers that local governments cannot control.

Although the sub-index on efficient resource use declined, local governments have also registered some important gains in the processes which determine how public resources are used (Figure 0.7). For example, the proportion of districts that include measurable outcome indicators in their annual budgets increased from 72 to 92 percent. Improvements to the functioning of local planning and budgeting processes have also shown progress. Between 2009 and 2012 the proportion of districts that set budget priorities and ceilings before sector offices (e.g. the education office) start their own planning exercises increased from 44 percent to 74 percent. These improvements reflect recent efforts by the central government to introduce performance based budgeting and medium term expenditure frameworks.

**Figure 0.7 Some aspects of the local planning and budget process have improved**



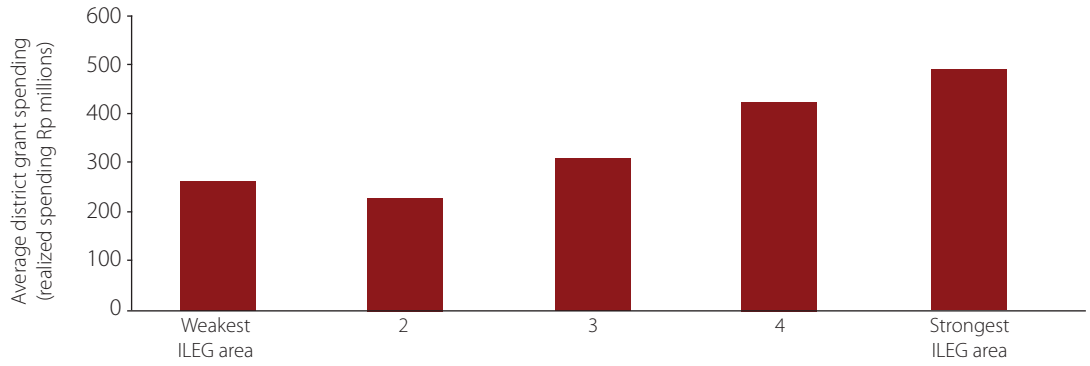

*Source:* Indonesian local education governance survey data, 2009 and 2012

## What was the effect of the capacity development grants provided by the Basic Education Capacity (BEC) Program?

The BEC program provided support to all of the sampled districts through technical assistance and the provision of local capacity development grants of approximately USD 255,000 for each district over a three year period. While the grants were relatively small (on average less than one percent of average annual education expenditure) they were designed to strengthen local education governance and improve education performance. Over two-thirds of BEC local grant expenditure was devoted to capacity building activities associated with improving management control systems and standards of education provision. Approximately a half of all grants were spent on building school level capacity and a further 40 percent on activities focused on staff and processes in the district education office.

The intended targeting of BEC grants to the weakest areas of governance identified in the 2009 ILEG survey does not seem to have occurred. Local governments developed capacity development plans based on an assessment of their needs in the education sector. The first round of the ILEG survey was designed to provide information for this assessment and to support the development of district capacity development plans. It was expected that local governments would use the capacity building grants to focus on the main areas of weakness identified by the 2009 ILEG survey and this broader assessment. However, it appears that areas assessed to be the weakest in the 2009 ILEG survey were allocated less grant resources than stronger areas (Figure 0.8). On the one hand, districts ranked relatively highly in 2009 on the ILEG sub-index for education service provision standards but this area received the largest share of BEC grant resources. On the other hand, district scores on the transparency and accountability sub-index were the lowest in 2009 but this area received the smallest BEC grant allocation.

**Figure 0.8 Average BEC grant spending by 2009 priorities identified by ILEG**




*Source:* Local education governance survey data, 2009

It is not possible to directly attribute the changes in the quality of local education governance reported by the ILEG survey with capacity building efforts of the BEC program. In particular, the ILEG survey includes a much broader picture of local education governance than the BEC program interventions were designed to address. However, it is possible to draw out of the ILEG index indicators that are more directly related to the BEC program and the BEC key performance indicators. This exercise shows that this sub-set of indicators follow a similar trend to the overall ILEG index. For example, indicators on transparency and accountability most closely associated with BEC key performance indicators generally show significant progress. BEC key performance indicators associated with management control systems have moved in opposite directions; a greater proportion of districts carry out a bidding process for procurement whereas fewer districts appear to carry out yearly stock inventories. However, weakened good practice systems which factor in the decline of the overall ILEG index on management control systems do not appear in the BEC key performance indicators.

## Conclusions

The findings of the ILEG survey demonstrate the importance of the quality of local governance in improving district education performance. Put simply, district education performance will not improve without strategies to address key governance constraints highlighted in the report. However, progress in strengthening local education governance over the last four years has been slow despite efforts to strengthen district capacity. The report highlights the enormous challenges that need to be addressed if local education governance is to be improved.

While strengthening local governance is crucial for sustained progress in the education sector it is also important to recognize that central government transfers and education sector programs present a number of challenges to district level education governance. The intergovernmental transfer system introduces incentives for higher salary spending which may distort the decision making process and result in mismatches between school needs and district allocations. While local governments provide the bulk of funding for basic education, the central government still contributes significantly. Central government programs largely bypass district level planning, budgeting and monitoring processes and have the potential to seriously undermine district efforts to improve education sector management and governance. Efforts to clarify roles and responsibilities and an increased effort to incorporate central government programs into local planning processes are clearly needed.

While it is not possible to assess the overall BEC program the study did highlight two key lessons for future capacity building programs:

1. **A multi-sectoral approach to capacity building is needed.** The study has shown that using sector specific capacity building activities to target key weaknesses in the quality of local governance is challenging. Efforts to target BEC capacity building grants to the weakest areas of governance were not particularly successful. In particular, before implementation the majority of the weaknesses identified were related to district level systems (e.g. simplify funding streams) rather than education systems specifically. However, the activities undertaken with the BEC grants focused on school level capacity rather than on these wider district level constraints. If the governance and management of district education systems is to be improved then it is crucial that these broader governance constraints are tackled.
2. **Tailor the level and type of capacity building support to district characteristics**. The report has shown that the level and type of support that local governments need to strengthen education governance varies considerably. For example, publicizing and disseminating information to the local population is much easier when there is a vibrant local media and there are a variety of communication channels available to do this. It is more difficult when there is no local media and communication is hampered by limited infrastructure and geographical obstacles. To be successful, future capacity building programs need to take account of the specific constraints that districts face and provide appropriate levels of funding.

Indonesia has made significant progress in improving its education system in recent times. Recent governments have demonstrated a commitment to education that has been backed up by substantial increases in public investment. The challenge for the education sector is to translate this commitment and increased investment into better education outcomes. The report has shown that strengthening the capacity of local governments to deliver good quality basic education services needs to be at the heart of efforts to address this challenge.

Chapter 1

# Introduction

Indonesia has made significant progress in extending access to educational opportunities over the last decade. Primary education is nearly universal and enrolment rates in junior and senior secondary education have risen rapidly. Children from the poorest families have been major beneficiaries of this recent progress; the share of children in the poorest 20 percent of the population who are still in school at the age of 15 has increased from 60 percent to 80 percent in the last five years. Improvements in access are also feeding through to increases in educational attainment amongst Indonesia's growing labor force. Between 2000 and 2012, the average years of education an adult attained increased from around 6 to 8 years.

Despite these significant improvements, progress on improving the quality of basic education has been mixed. Indonesia ranks towards the bottom of international assessments of learning achievement and by some measures falls well below the levels of education quality expected for a middle income country. As with education systems around the world, raising the quality of education and the level of skills that children leave school with is a central challenge.

The somewhat mixed picture in terms of trends in education outcomes is not the result of underinvestment or a lack of reform effort. In 2001, the responsibility for many aspects of basic education began to be devolved to local governments.[1] Decentralization has the potential to improve service delivery because decisions on how to provide education of good quality are brought closer to the parents and students that are directly affected. In this way, decisions on the best way to deliver education services would be increasingly responsive to local needs and more aligned with the specific characteristics of each district. Decentralization could also lead to greater innovation and experimentation in service delivery with the potential for successful reforms to be replicated across local governments.

Further reforms were introduced in 2003 that provided the legal basis for school based management and formalized school committees in an effort to encourage local community participation and strengthen accountability between schools and parents. The Teacher Law of 2005 addressed shortcomings in teacher pay and quality by introducing certification and a strengthened program of continuous professional development. At the same time, the national school grants program (*Bantuan Operasional Sekolah*) was rolled-out and gave schools vital resources to support the adoption of earlier school based management reforms. These reform efforts were supported by a near tripling, in real terms, of government education spending between 2001 and 2010. A constitutional amendment passed in 2002, and first achieved in 2009, also reserved 20 percent of total government spending for the education sector.

1 Regional autonomy legislation was drafted in 1999 and implemented in 2001. The education law in 2003 further defined the roles and responsibilities of the central, provincial and local governments as well as schools.

While it is perhaps too early to assess the overall impact of this comprehensive reform package it is clear that the systems governing the use of public investments have only been moderately successful in translating spending into improved education outcomes. Recent studies have shown that increased investment has led to increasing levels of inefficiency in the education system driven in part by weaknesses in education sector governance.

Assessing the current quality of local education governance and identifying the main weaknesses is crucial if education outcomes are to be improved. Numerous studies have highlighted that the effectiveness of local governments to deliver education services varies considerably. It is important to understand what underlies these differences and to identify the aspects of local governance that appear to be crucial for effective education service delivery. Significant efforts have been made since decentralization was introduced to strengthen the quality of local governance generally as well as in the education sector more specifically. It is important to assess the extent to which programs of this kind are delivering improvements in local governance and leading to better education outcomes.

The main purpose of this report is to assess the state of local education governance in a sample of Indonesian districts and how it affects education performance. The study uses a unique local government survey conducted in 2009 and 2012 coupled with district level information from household surveys to identify patterns and explore trends in the relationship between governance and education outcomes. The report also explores the effects of a large donor supported program that aimed to strengthen the capacity of local governments in 50 districts of Indonesia. It looks at how education governance has changed in the participating districts and draws broader lessons for future programs designed to strengthen local governance and ultimately education performance.

The report shows that the quality of local governance, particularly aspects of management control systems and transparency and accountability are important factors in explaining district differences in the quality of education services. The survey results also show that while the overall quality of local governance did not change much between 2009 and 2012 there have been significant changes in some underlying dimensions. In particular, there have been significant improvements in the education sector's transparency and accountability mechanisms and local management information systems. However, these are balanced out by reductions in the quality of local management control systems and the efficiency of local resource use. The report highlights the importance of the overall governance environment and stresses the need for a holistic approach to future capacity building programs that seek to improve education performance.

The next chapter looks at the role local governments' play in delivering basic education services and highlights the importance of the quality of local governance in explaining district education performance. Chapter 3 outlines the main objectives and approach the Indonesian Local Education Governance (ILEG) survey takes to measuring the quality of local governance. It also provides background information on the Basic Education Capacity (BEC) program which aimed to strengthen local education governance in the surveyed districts. Chapter 4 presents the main results of the survey and explores how the quality of local governance changed between 2009 and 2012. The relationship between education governance and education outcomes is analyzed in Chapter 5 and Chapter 6 offers some conclusions and recommendations.

Chapter 2

# Improving Education Performance – The Role of Local Government

Recognizing the importance for broader development goals, Indonesia has invested heavily in its education sector. Increased public education spending has begun to deliver results and Indonesian children are starting earlier and staying in school longer than ever before. However, the quality of education remains low and students are leaving school with low levels of skills that limit their ability to access good quality jobs and the economy's ability to increase productivity.

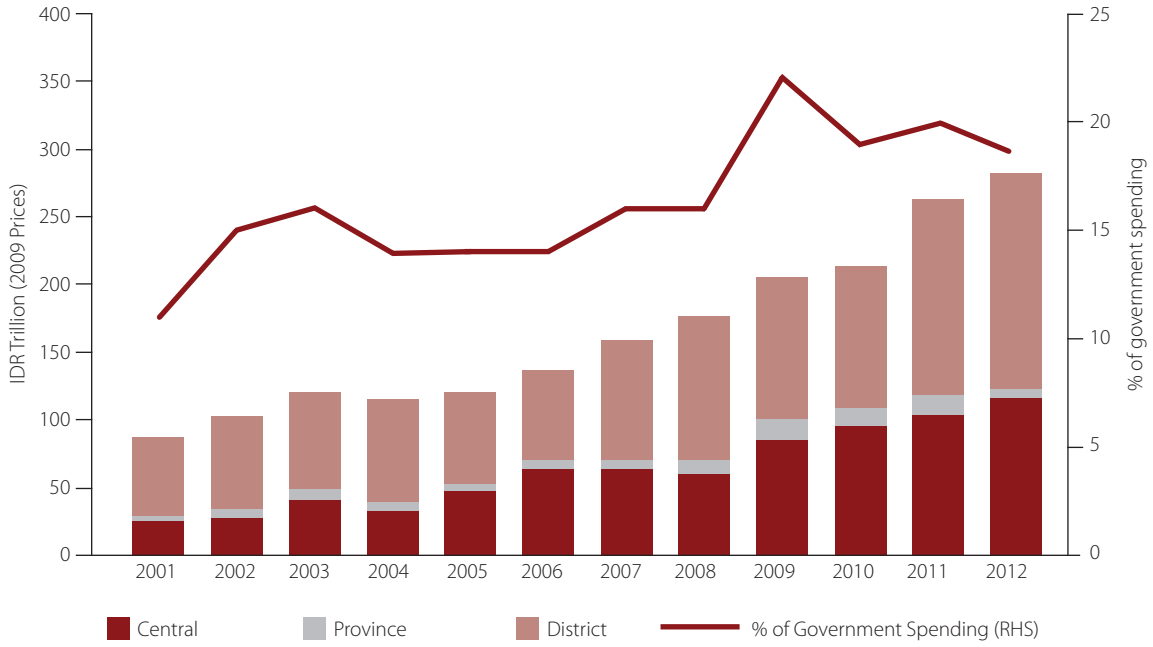
Local governments are central to efforts to extend educational opportunity further and raise the quality of education. The decentralization reforms introduced in 1999 shifted responsibility for pre-tertiary education to local governments. Districts vary widely in terms of the quality of education services provided. While overall levels of funding matter, a key driver of education disparities between districts is differences in the ability to make effective use of the resources available. This chapter provides a brief outline of the major trends and patterns of education performance across districts over the last 10 years. It introduces a conceptual framework that highlights the importance of local governments in the delivery of education while at the same time identifying the other main determinants of district education performance.

## 2.1 Trends in education

Public investment in education has risen rapidly in recent times as a result of an increased government commitment to the sector. Between 2001 and 2011 public education spending almost trebled in real terms, an increase very few countries have emulated (Figure 2.1). Government spending increased most rapidly at the end of the 2000s after a constitutional obligation to spend at least 20 percent of the national budget on education was achieved in 2009.

Decentralization shifted the bulk of decision making about public education spending to local governments and schools although the financing of basic education remained a shared responsibility. In 2012, local governments accounted for 60 percent of all government education spending (Figure 2.1). While total government spending on education has recently absorbed a fifth of all government resources (i.e. central and local governments) each level of government devotes significantly different shares of their overall budget to education. For example, in 2009 education accounted for approximately 14 percent of total spending by the central government (excluding transfers) and over 25 percent of total local government (provincial and district) spending.

**Figure 2.1 Public spending on education has increased significantly since 2001**

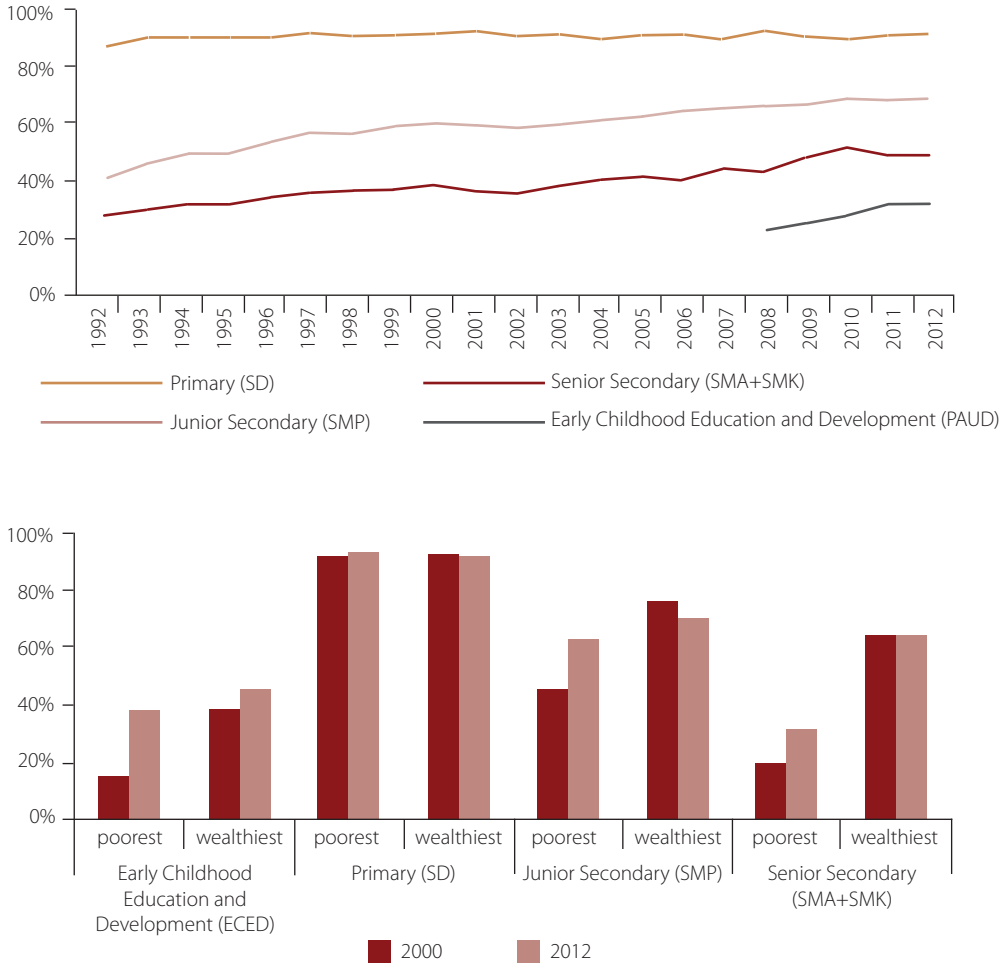



*Source:* World Bank staff estimates based on MoF and APBD data

Increased public investment in education has led to significant progress in providing improved access to education. This is particularly evident at the secondary level where enrolment rates have increased by about 10 percentage points since 2000 (Figure 2.2). Increased access has been largely concentrated amongst poorer households (Figure 2.2). For example, between 2000 and 2012, junior secondary net enrolment rates increased from 18 percent to 32 percent for the poorest households while rates for the wealthiest 20 percent of households tended to remain the same.

While access has improved, international learning assessments show that the quality of education remains low. The latest 2011, Trends in International Mathematics and Science Study (TIMSS) showed that eighth grade students in Indonesia were ranked 38th out of the 42 countries participating in the Mathematics assessment. Approximately 85 percent of Indonesian students were at or below the low international benchmark, a level at which students are judged to have an 'elementary understanding of whole numbers and decimals and can do basic computations' (Mullis, Martin et al. 2012). Other similar international assessments in science and reading also point to the relatively low quality of secondary education (see for example, OECD 2010).

**Figure 2.2 Net enrolment rates in pre-tertiary education, 1995-2012**



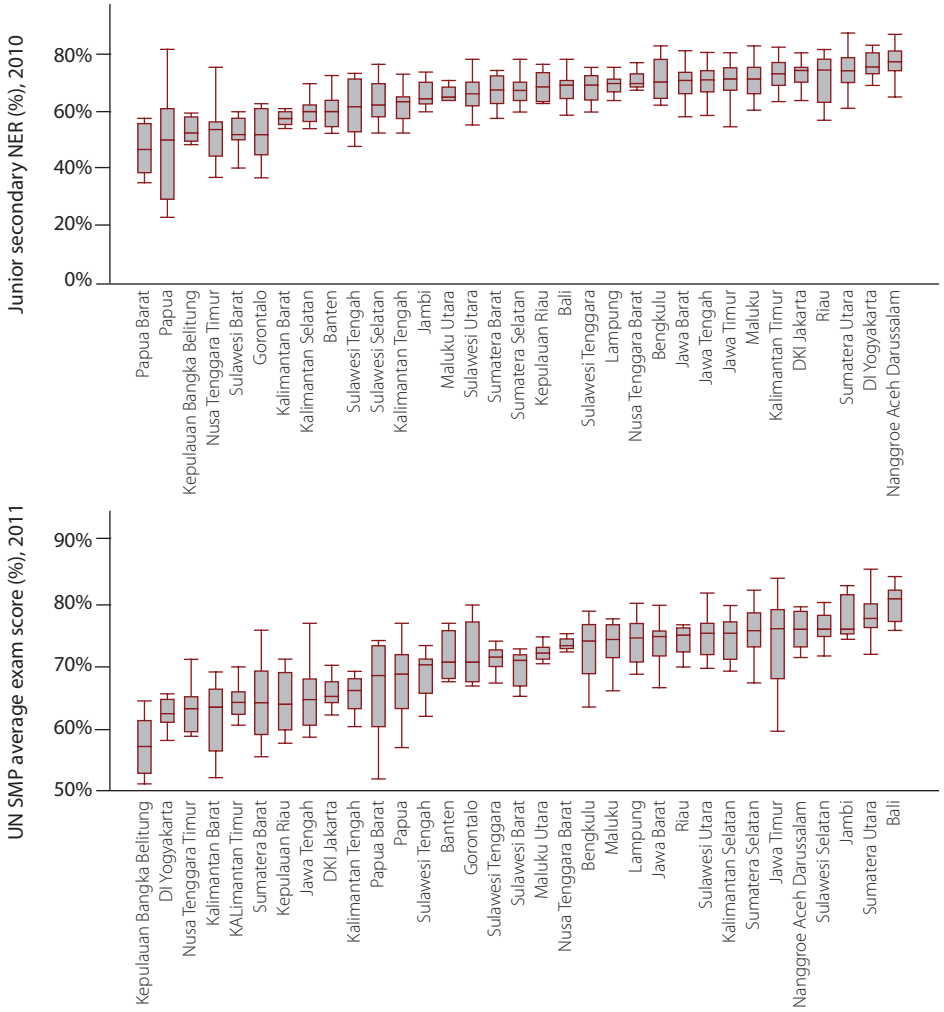

*Note:* enrolment rate in ECED is calculated as enrolment of the 4-6 year old group in pre-primary education. Enrolment in ECED is only available from 2008. Poorest and wealthiest quintiles for ECED relate to 2008 and 2012.
*Source:* Susenas (March round)

Although progress in raising learning achievement in Mathematics and Science has been slow there has been significant improvement in reading. The latest Progress in International Reading Literacy Study (PIRLS) shows that reading achievement in Indonesia has improved significantly. For example, the proportion of Indonesian 4th grade students at or above the low international benchmark increased from 54 percent in 2006 to 66 percent in 2011.[2] However, no significant improvements in science and mathematics were recorded. In the mathematics assessment, the percentage of students at or above the low international benchmark fell from 48 percent to 43 percent although the drop was not statistically significant (Mullis, Martin et al. 2012b).[3]

2 Assessments of the reading levels of 15 year olds shows similar improvements (see OECD 2010a).
3 The fall in science scores between 2007 and 2011 in the TIMSS study were small but statistically significant.

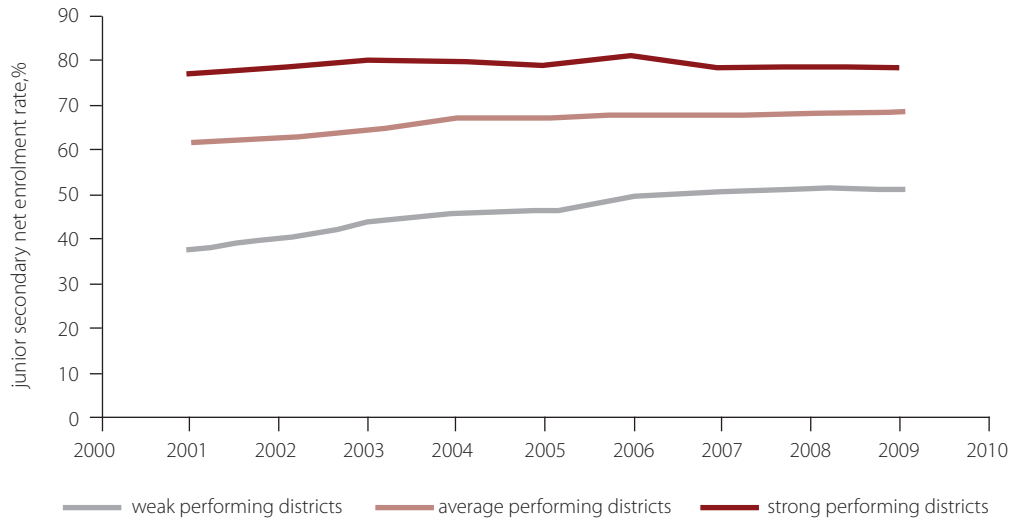
The national picture on quality and access masks significant disparities at the local government level. Figure 2.3 provides a snapshot of differences in enrolment rates and examination scores across the 33 provinces. Enrolment rates at the junior secondary level vary from an average of 46 percent in Papua Barat to nearly 80 percent in Nanggroe Aceh Darussalam. Examination scores also varied significantly across provinces and districts; the average *Ujian Nasional* (UN) score varied by 23 percentage points between the provinces of Banka Belitung and Bali provinces. Variations within provinces were also very wide. For example, in Papua province the district of Jayapura enrolled 78 percent of its primary school age children in school compared to only 14 percent in Puncak district.

**Figure 2.3 Disparities in access and learning between districts, 2010 and 2011**




*Note:* The box plot graph shows the distribution of districts within each province in terms of the NER or UN examination score. The box represents the difference between the districts at the 25th and 75th percentile of the distribution (that is, the interquartile range), and the line within the box represents the value for the median district. The lines (whiskers) above (below) the box show the most extreme value above (below) the 75th (25th) percentile that is within 1.5 times the interquartile range.
*Source:* Enrolment rates – Susenas (July round). UN scores – MoEC central database.

**Figure 2.4 Enrolment rate disparities between districts have narrowed, 2001-2009**




*Note:* For each year shown, districts are ranked according to their enrolment rate. The weak (strong) performing districts are defined as the 20 percent of districts with the lowest (highest) enrolment rates. Newly formed districts are included as part of their parent districts in this analysis.
*Source:* Susenas (July round).

While significant education disparities remain, access to education has become more equitable since 2000. It is difficult to establish the extent to which district enrolment rates have converged because many districts have been broken up into two or more new districts since 2001. Between 2001 and 2009 an additional 7 provinces and 199 districts were established increasing the overall number of provinces to 33 and districts to 491 (SN PER PN1). In order to explore trends between 2001 and 2009, enrolment rates were calculated based on the districts existing in 2001. Enrolment rates for the trend analysis were calculated by aggregating enrolment rates for the newly established districts with the original district they had broken away from.[4] In general, primary and secondary enrolment rates in this sub-set of districts have tended to converge (see Figure 2.4).

4 A number of different approaches to looking at how district inequality has changed over time were undertaken with broadly similar results.

## 2.2. The responsibilities and functions of different levels of government

The Regional Autonomy laws (22 and 25) in 1999, the 2003 Education Law and subsequent regulations (e.g. Government Regulation 38 in 2007) set out the responsibilities of different levels of government in the delivery of education services.[5] Central government maintained its role in formulating education policy, establishing the curriculum framework and setting national education standards. District level governments were given responsibility for the overall organization of primary and secondary education, the hiring and deployment of teachers, the authority to establish new schools and maintain the registration of existing schools. District level governments were also able to issue their own regulations outlining education provision standards as long as they adhered to national guidelines particularly for minimum standards. Provincial level governments were mandated to support the implementation of primary and secondary education although their role was largely limited to coordination and supervision (see Box 2.1).

**Box 2.1 Division of education functions between provincial and district governments**

A first glance at the regulations suggests that provincial and district governments are jointly responsible for the delivery of education services. However, a closer reading shows that districts shoulder the greater responsibility with provinces playing a coordinating and supervisory role. Some of the major differences in responsibilities include:

| Districts are responsible for: | Provinces are responsible for: |
|---|---|
| Management and delivery of services for early childhood education, basic and senior secondary education and non-formal education | Development of education staff personnel and provision of facilities for basic and senior secondary education service delivery between districts |
| Issuing and revoking permits for establishing basic and senior secondary schools and non-formal education centers/providers | No role stated for this function |
| Providing funding for early childhood education, basic and senior secondary education, and non-formal education | Providing funding for international standard education |
| Planning education manpower needs for early childhood education, basic and senior secondary education, and non-formal education | Appointment and placement of education civil servants for international standard education |
| Supervising and facilitating early childhood schools, basic and senior secondary schools, and non-formal education centers in quality assurance to fulfill national education standards | No role stated for this function |

Provinces can use their own budgets (provincial APBD) to provide financial support to district education activities (e.g. provincial teacher allowances, school grants etc.) and also manage *Dekonsentrasi* funding on behalf of the provincial governor.

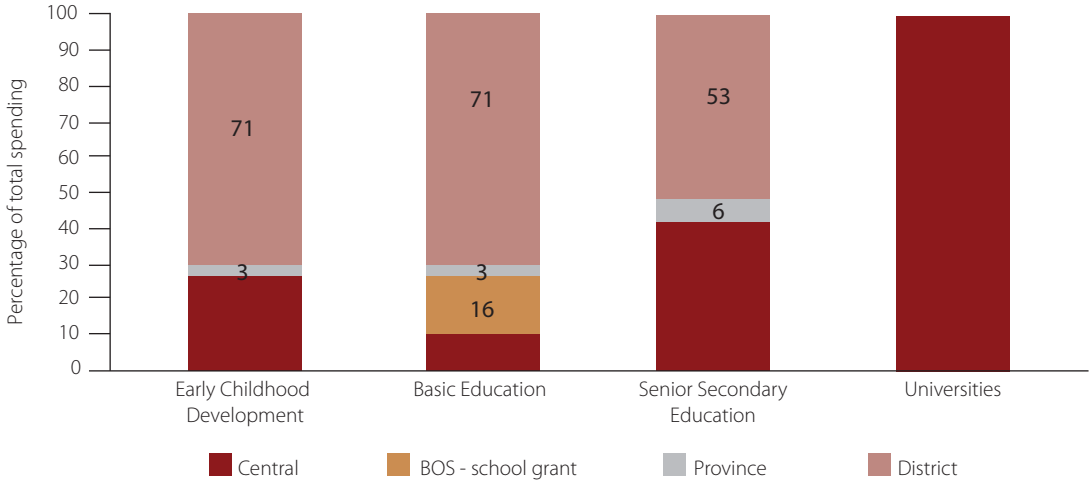
*Note*: Drawn from USAID (2009)

5 Laws 22 and 25 were replaced in 2004 by Laws 32 and 33.

The Education Act also decentralized school governance through the introduction of school based management. In a similar way to broader decentralization reforms, school based management was seen as a strategy to improve quality by bringing decision-making closer to local communities and strengthening accountability mechanisms between schools and the parents and children they served (AusAID ERF 2011; Bruns, Filmer et al. 2011). The 2003 Education Law formally established district level education boards and school committees so as to enhance community participation in school decision making and improve education sector transparency and accountability. In 2005, the law was supported by the introduction of a set of detailed guidelines on the implementation of school based management. At the same time the central government introduced *Bantuan Operasional Sekolah* (BOS) a nationwide school grants program designed in part to support the implementation of school based management. Grants are provided on the basis of the number of students enrolled at school on an equal per-student basis. Schools and their school committees decide how to make use of these operational funds to support school improvement.

While financing remains a shared responsibility, district governments provide the largest share of funds for pre-tertiary education. In 2009, approximately two-thirds of all public education spending on pre-tertiary education was provided by district governments (Figure 2.5). Districts devote an increasingly large share of their overall budget to education. Between 2006 and 2011 the share of the total district budget (APBD) allocated to education increased from 27 percent to nearly 37 percent (Rorris 2012).[6] Provincial governments make up only a small proportion of overall government spending on education and this in part reflects the relatively small budgets provincial governments have compared to central and district governments.

**Figure 2.5 Education spending by level of government, 2009**




*Source:* World Bank (2013b).

6 These budget shares are calculated on the initial budget.

Despite the shift in responsibility to provincial and district governments, the center remains an important source of financing for pre-tertiary education. In particular, the central government still provides a significant proportion of non-salary resources to schools. For example, in 2009, the central government provided over three quarters of all non-salary spending for primary and junior secondary schools (World Bank 2013b). A large part of this support was through the national BOS school grants program. For example, approximately half of central government non-salary spending at the primary level was provided through the BOS program.[7] The remaining central non-salary support came through a number of different programs including ICT provision, grants for international schools, student scholarships, school rehabilitation and a range of quality improvement programs.

## 2.3 District financing and education performance

While a large proportion of district budgets are allocated to education, the ability of local governments to translate resources into improved outcomes differs widely.[8] Figure 2.6 plots local government spending against measures of education performance and clearly shows that the overall relationship is weak.[9] Put another way, the graphs show that spending is not a good predictor of education outcomes.

Some local governments appear to use their resources more effectively than others to deliver education services to their constituents. Districts in quadrant A of Figure 2.6 spend less than the average district on education but have better than average outcomes. For example, Indramayu in West Java spends about Rp 1.1 million per child of primary or secondary school age and has a junior secondary net enrolment rate of 79 percent, 14 percentage points higher than the district average. Districts in quadrant C are relatively inefficient; they spend more than the average district but have outcomes well below the national average. For example, Natuna district in Riau Islands spends almost five times more per student than Indramayu but its junior secondary net enrolment rate is 14 percentage points lower. Differences in outcomes are determined partly by the socio-economic status of the population, the geographical location of a school and the size of the school-aged population. For example, the less efficient districts in quadrant C have an average poverty rate of 19 percent, compared with 16 percent in the more efficient districts in quadrant A.[10] The more efficient districts also tend to have more children of school age than the less efficient districts in quadrant C.

7 In 2011 BOS funding appeared in district government budgets and since then has been directed through provincial budgets. While this shifts a significant part of non-salary spending to local government budgets the central government remains a key provider of non-salary resources in the pre-tertiary sector.

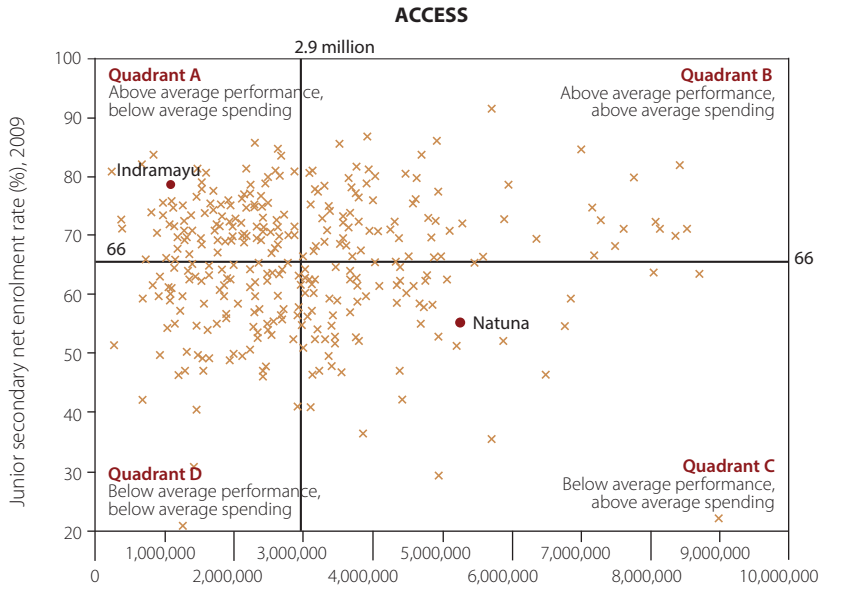
8 Access to junior secondary schooling has been chosen because district differences are wide. The UN examination score is selected to show differences across districts in terms of learning outcomes. There are a number of weaknesses in the examinations ability to measure education outcomes. For example, there is widespread reporting of cheating in national examinations but results provide an acceptable proxy of district learning outcomes to the extent that this cheating is spread randomly across districts. Similar relationships exist between other education outcomes and local government spending.

9 The R-squared for the plot of spending and access is 0.0003 and for examination results -0.002.

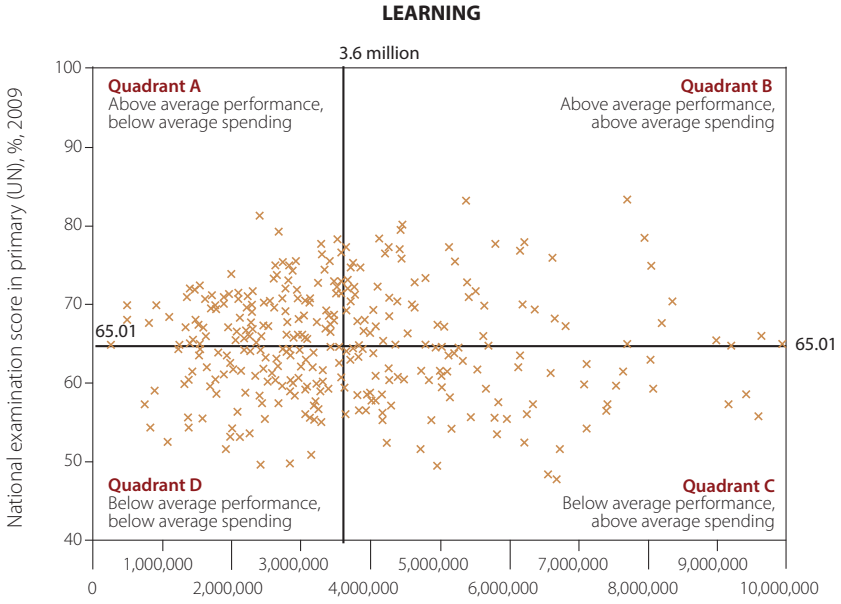
10 The rates are based on BPS poverty lines for 2009.

**Figure 2.6 Local governments differ in their ability to translate resources into improved education outcomes**

Local government spending and education outcomes, 2009




Average local government education spending per primary and junior secondary aged child, 2009



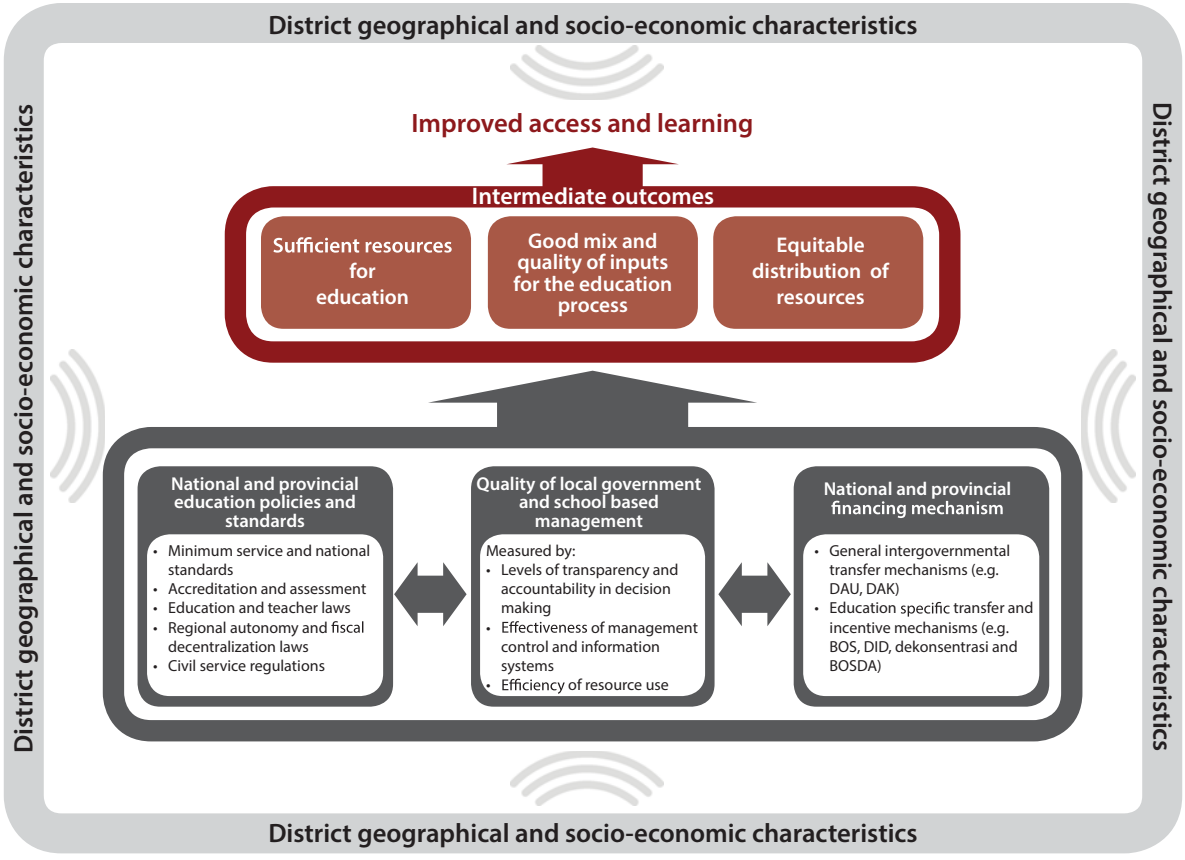

Average local government education spending per primary and junior secondary student, 2009

*Source:* Authors' calculations based on data from SIKD database and Susenas.

## 2.4 The importance of local governance for addressing challenges in education

There are many interrelated factors that determine education performance (Figure 2.7). District characteristics in terms of the relative wealth of the population, remoteness and how well established the district administration is all play a role in determining the effectiveness of the local education system (Figure 2.7). National financing mechanisms, education policies and standards set some key parameters for the management of education at the local level. For example, the national teacher certification program has consequences for district level education spending as well as the minimum qualification level for teachers hired by districts.[11] National and provincial financing mechanisms such as the intergovernmental transfer system also play a key role in the incentives that districts face in funding and operating their education systems. For example, the main transfer between central and local governments (*Dana Alokasi Umum* - DAU) establishes strong incentives for local governments to hire more teachers. This in turn affects the composition of education spending at the local government level (see World Bank 2013b).

**Figure 2.7 A framework for exploring district education performance**




11 Since 2009, teacher professional allowances are included in district budgets (APBD).

The quality of local governance is a contributory factor to the functioning of district education systems. A number of recent studies have shown that various aspects of local governance are important in determining the effectiveness of public education spending. The 2009 Local Governance Capacity Assessment study found a strong positive relationship between measures of the quality of education governance and education outcomes (World Bank 2010). For example, the study found positive and statistically significant relationships between enrolment rates and a composite measure of local governance quality. Another study explored the link between public spending, education outcomes and the level of corruption (Suryadarma 2011). The study found that there was no statistically significant relationship between spending and enrolment rates in regions that rated high on a Corruptions Perceptions Index. However, where corruption was perceived to be low, spending had a significant impact on enrolment rates.

**Box 2.2 Governance challenges in remote areas: Sorong Selatan**

Using resources effectively in an isolated location without ready access to electricity and mobile connectivity continues to be a major challenge. Over 600 teachers in Sorong Selatan must travel to the district education office to collect their salaries once every three months. This involves between 4 – 6 hours travel over poor roads or by boat (39 percent of teachers are in coastal areas), in sometimes rough conditions. These activities have both a human and financial cost and also reduce effective teaching time in schools. A plan to build sub-district education offices (UPTD Pendidikan) in 2013 is in place amongst other initiatives aimed at reducing the travel time for routine salary pick up.

Understanding the factors associated with good governance is therefore a central component of efforts to improve district education performance. How can governance at the district level be measured, which areas of governance are most important for improved education performance and how can capacity be built in these areas? The remainder of the report aims to answer these questions by looking at new survey work assessing education governance in 50 Indonesian districts.

Chapter 3

# An Introduction to the ILEG Survey and the BEC Program

In order to assess the state of local education governance in Indonesia a survey was conducted in 50 districts across Indonesia in 2009 and 2012. This chapter briefly describes the approach taken to measuring and collecting information on local governance. The participating districts were chosen by the Ministry of Education and Culture as beneficiaries of the Basic Education Capacity (BEC) program and can in no way be seen as nationally representative. The BEC program was funded by the Netherlands Government and the European Commission and supported capacity development aimed at strengthening local education governance. The chapter provides a brief overview of the BEC program and explores differences between participating districts and other districts in Indonesia.

## 3.1 Measuring local education governance[12]

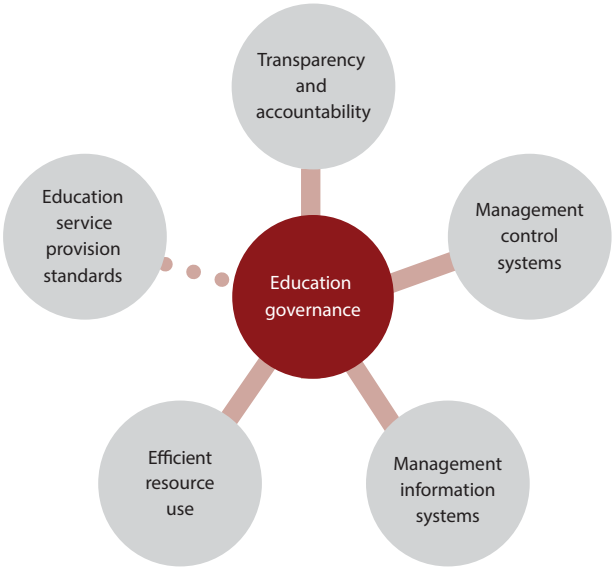
Governance has been broadly defined as 'the traditions and institutions by which authority in a country is exercised. This includes (a) the process by which governments are selected, monitored and replaced; and includes the capacity of the government to effectively formulate and implement sound policies; and (b) the respect of citizens and the state for the institutions that govern economic and social interactions among them' (Kaufman, Kraay et al. 2010). In terms of education service delivery, effective governance has been associated with a number of key components including:[13]

- the existence of standards
- good information on education sector performance and innovation
- effective planning and budgeting mechanisms
- real participation and transparency in decision making processes
- incentive systems to reward good performance
- strong accountability mechanisms

For the purposes of this report, governance is broken down into four key dimensions that seek to measure the effectiveness of local government institutions associated with the delivery of education services (see Figure 3.1). In order to monitor the overall BEC program a fifth component, Education Service Provision, is also included which aims to measure overall district education performance. For each dimension, a set of indicators were used to evaluate the quality of local governance.

12 Further details of the methodology and approach are included in the report of the 2009 results (see World Bank 2010).
13 See Lewis and Pettersson (2009) for a comprehensive overview of governance issues in education.

**Figure 3.1 Dimensions of education governance measured by the Indonesian Local Education Governance Survey**




## Transparency and accountability

This dimension measures the practices and regulatory efforts made by local governments to enable transparent, accountable and participatory governance of the education sector. It is expected that local governments demonstrating open and participatory decision making processes will be more accountable and more likely to make effective decisions to improve district education performance. A set of 10 indicators are used to measure this dimension of local governance (see Appendix 1). Indicators include assessments of the openness of local parliamentary budget sessions and the ability of local stakeholders (e.g. local education boards) to participate in education planning and budgeting processes at the local education office.

## Management control systems

This component attempts to assess whether the systems are in place to incorporate decisions made by local and school level planning processes into annual education work plans (see Appendix 1). When these systems are absent, annual work plans developed by the local administration are unlikely to reflect the real needs of local communities and weaken the effectiveness of district planning. The dimension also measures the extent to which local governments have introduced incentives for key professional staff (e.g. teachers, school principals and supervisors) and have systems in place to record and disseminate local examples of education innovation and good practice. Both of these areas have the potential to raise the quality of education.

## Management information systems

The availability of good quality information about local education systems is crucial if education performance is to be improved. The lack of comprehensive information on the status of district schools seriously compromises the ability of decision makers to support schools in the most effective way and limits the ability of local communities to hold schools and local governments accountable. This dimension of local education governance is measured using a set of four indicators that assess the systems in place for data collection, management, storage and analysis (see Appendix 1).

## Efficient resource use

This dimension of governance establishes whether the systems are in place to effectively plan, budget and monitor resource use. Planning and budgeting systems in district education offices are important to ensure that resources are directed where they will have the biggest impact. In order for these systems to work effectively, a clear budget timetable needs to be articulated and adhered to. It is also important that during this process the expected outcomes of resource allocation decisions are determined and that these are monitored once budgets have been finalized. A set of twelve indicators are used which assess whether the regulatory framework for these key areas of the planning and budgeting process are in place. Differences between planned and realized education spending are also used to provide an assessment of the effectiveness of education planning and budgeting.

## Education service provision standards

This set of indicators provides a picture of the scale and quality of primary and junior secondary education services in the district. It includes indicators on enrolment and literacy rates, drop-out rates, national examination scores and teacher qualifications (see Appendix 1).

A total of 56 indicators are used to assess the five dimensions of local education governance. Each indicator is assigned to one of three categories depending on whether it is a measure of **regulatory compliance, process or performance.**[14] For example, the setting of budget priorities is classified as a process indicator; the existence of written procedures for data collection is an indicator of the existence of regulations; and the difference between planned and realized expenditure is categorized as a performance variable. Relative weights were assigned to each category with indicators of performance given the highest weight and indicators of regulatory compliance the lowest weight.[15]

In order to summarize the quality of local governance, the set of identified indicators are combined for each area into a sub-index. For example, the sub-index for transparency and accountability is a weighted average of the 10 indicators outlined in Appendix 1.[16] Each sub-index ranges between zero and one with higher values associated with better measured local governance quality. The average of these sub-indices is used to compute the Indonesian Local Education Governance (ILEG) index. This index is a measure of the overall quality of local education governance in the selected districts.

In the current report, adjustments have been made to the approach which mean that the reported findings are not directly comparable to results outlined in an earlier report that summarized the 2009 survey (World Bank 2010). Before the 2012 survey was conducted a thorough review and assessment of the previous approach was undertaken and this identified a number of weaknesses in the construction of indicators. This led to the adjustment of the indicators that were used (see Box 3.1). These adjustments were used to construct the new 2012 indicators as well as reconstructing the indicators from the earlier 2009 survey. While the results presented for 2009 and 2012 in this report are consistent with each other, the 2009 results described here are different to the indicators that appear in the earlier report (World Bank 2010).

14 See World Bank (2010) for full details of the categorization of indicators and the reasons behind the assigned weights.
15 Relative to regulatory indicators, process indicators were given a weight of 2 and performance indicators a weight of 3.
16 The transparency and accountability sub-index includes 7 performance indicators, 2 process indicators and 1 indicator on regulation. Each indicator ranges between the values of zero and one. In order to calculate the sub-index, each category of indicators (e.g. performance, process, regulation) is first averaged and then category weights (0.17 for regulation, 0.33 for process and 0.5 for performance) are applied. The sub-index is defined as the sum of these weighted values and ranges between zero and one.

**Box 3.1 Changes made to the indicators and approach compared with the 2010 report**

In this report, a number of changes have been made to the indicators used and the construction of the main governance indices compared with the earlier 2010 report (World Bank 2010). The main changes include:

- Some indicators have been removed because the survey was unable to collect reliable information. A total of four indicators were dropped. Indicators on the transition rates between primary, junior and senior secondary (from education service provision sub-index) were dropped as were indicators on the proportion of district schools with computers and internet connections.
- Sources for some indicators have changed because the survey was unable to collect reliable information. For example, in the current study, Susenas household survey data were used to calculate district net enrolment rates. This information was judged to be more accurate than information collected at the district level and used in the analysis for the earlier report.
- The scoring used for some indicators has changed. There were some slight corrections to the way indicators were scored from the first round as well as some adjustments in the scoring. For example, in the 2010 report, indicators measuring the existence of incentive schemes for key professional staff scored monetary incentives higher than other incentives (e.g. promotion etc.). In the new analysis no distinction in the score is made in the type of incentives provided.

The approach to missing values is also different in the current report. In the earlier report, missing values in district indicators were replaced by a value of zero. This meant, for example, that if a district's net enrolment rate was missing it was assumed to be zero. In the 2009 survey, approximately 10 percent of the observations across all indicators were missing. This meant that treating missing values as zero had the potential to lower individual district scores considerably. However, it seemed unreasonable to score districts as low performing because they lacked the relevant information. In the current report, missing values are replaced by an overall average for the districts with information. This reduces significantly the downward bias that the previous approach introduced. The number of missing values has also been reduced substantially because of changes to the sources and the dropping of some of the indicators described above.

These changes affected the overall level of the governance indices calculated for 2009 but the general trends and overall rankings did not change significantly. To accommodate these changes the classification of districts by governance quality were adjusted. Scores below 45 percent are classified as low performance, 46-60 percent average performance and above 60 percent high performance. A full listing of the set of 56 indicators used, their sources and average values are available in Appendix Table 1.

The ILEG index is correlated with other measures of the quality of local governance. The overall ILEG index is correlated strongly with audit report findings and showed that districts with high scores on the index were more likely to have better overall audit reports from BPK audits. A district based survey of the business perceptions of local economic governance conducted in 2011 covered 27 of the ILEG survey districts (KPPOD and Asia Foundation 2011). Correlations between the ILEG index and the local economic governance index for both for 2009 and 2012 were generally positive. However, the strength of the correlations and their statistical significance were more variable. This is likely due to the focus of the economic governance measure on the ease of doing business rather than the effectiveness of government service delivery.

## 3.2 District planning, budgeting and monitoring in the education sector[17]

The dimensions of local education governance measured by the ILEG survey provide an assessment of the main aspects of the local planning and budgeting process. Understanding the basic elements of this process is important for placing the overall results of the ILEG survey in context.

### Planning

Every five years districts prepare a medium-term development plan *(Rencana Pembangunan Jangka Menengah Daerah* - RPMJD) which articulates the main development priorities of the region. A medium-term strategic development plan for the education sector is also developed which derives its overall priorities and targets from the district-wide plan. These plans along with annual MoHA guidelines serve as the basis for developing an annual working plan for the district *(Rencana Kerja Pemerintah Daerah* - RKPD). Each sector, including education, prepares a draft annual working plan (*Renja Satuan Kerja Perangkat Daerah* - SKPD) that is coordinated with the overall district plan. In the education sector, the draft annual work plan is also supposed to reflect the preliminary plans of all schools in the district. Prior to the drafting of the work plan, schools provide a report on progress over the previous year and a preliminary plan for the coming year. These plans are then consolidated by the district education office and used as an input into the annual district education work plan.

Further stakeholder participation in the planning process is also mandated in the laws and regulations detailing local planning processes. Consultations on the priorities and needs of communities in the district start at the village level and are fed up to the district administration through a series of planning and coordination meetings (*Musyawarah Perencanaan Pembangunan* - MUSRENBANG). In each sector (e.g. education), the priorities and recommendations arising from this series of meetings culminate in a district level forum that provides further input into the draft annual work plan and budget (draft RKA SKPD).

### Budgeting and execution

Towards the end of the local planning process (around May/June), the general policy for the local budget (APBD) is developed and indicative budget ceilings and priorities (PPAS) are provided to sector agencies. These are used to develop sector annual work and budget plans (RKA-SKPD) which are consolidated into the district government annual budget (APBD). After approval by the local parliament and the district head, the budget implementation document (DPA-SKPD) is formulated. Each activity in the district education budget is also required to have performance indicators that can be used to assess whether the activities leading to planned outcomes. The budget is usually revised around the middle of the year (July-August). The revised budget can include new activities, revisions to existing activities or the cancellation of originally planned activities. Sector agency annual work plans are revised using a similar process to original budget preparation.

Budget execution is guided by Ministry of Home Affairs (MoHA) financial management regulations for local governments. These regulations outline the procedures provinces and districts are required to follow for budget execution including financial reporting requirements, standards of accounting and procurement guidelines.

17 This section draws on World Bank (2009; 2012b).

## Monitoring and evaluation

Local governments monitor their annual work plans during implementation and evaluate the results that have been achieved once the budget year closes. The monitoring exercise also reviews the planning process itself and assesses the extent to which work plans are in line with local development priorities and the indicative ceilings have been used in developing the local budget. Ultimately, the overall district budget is audited by the local inspectorate to ensure that resources were used for the purposes they were intended for.

Information on education characteristics of the district and schools are collected as part of the national education management information system (EMIS). Districts finance and carry out the collection of information from each education institution that falls under their responsibility. Schools provide comprehensive information on their operations including student enrolments, staffing levels and adequacy, school condition and simple revenue and expenditure accounts. The information collected as part of the survey are used as an input into the planning and budgeting process as well as monitoring education progress as a whole.

School supervisors are also expected to visit schools on a regular basis and provide support for improving the quality of learning as well as ensuring that schools are complying with existing regulations. School committees can also play a role in the monitoring and evaluation of resource use at the school level. For example, regulations exist outlining the roles and responsibilities of school committee's in the management of BOS funds (planning, budgeting, executing and monitoring).

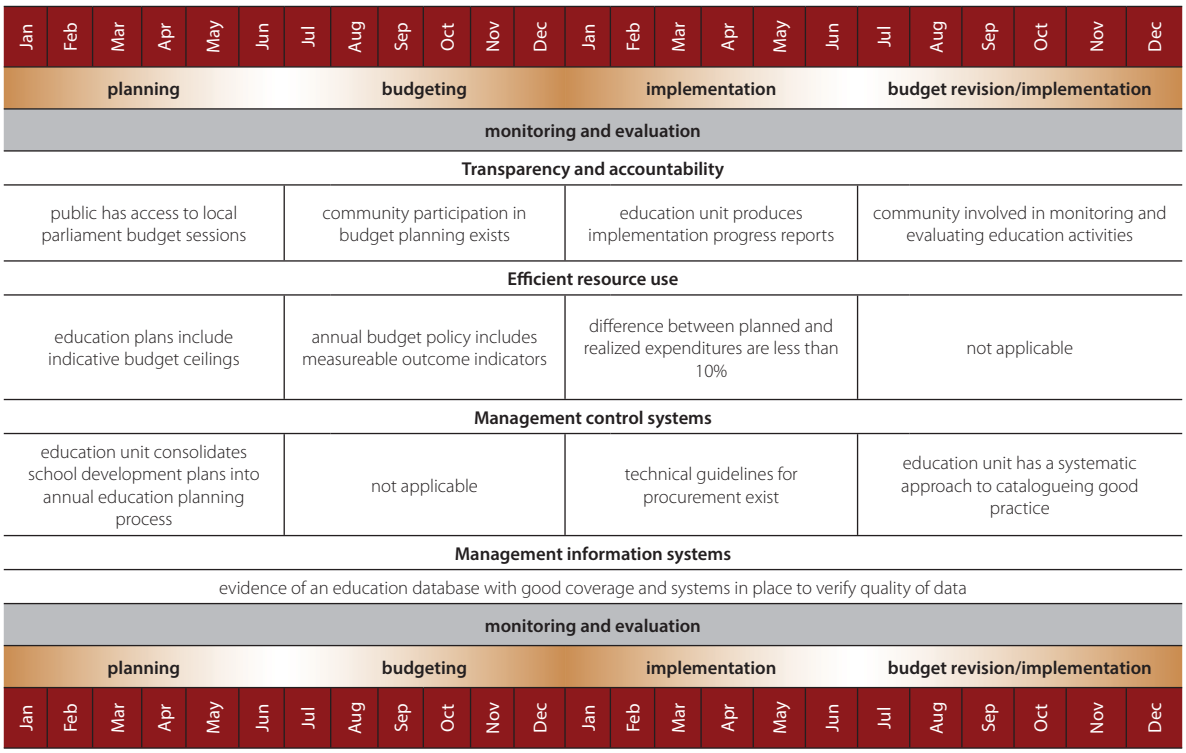
Many district education offices also combine information from the annual survey of schools with information on the education budget to produce annual progress reports. These reports provide the information required to assess progress towards the performance indicators outlined for each activity in the annual budget. The reports also provide spending information on each activity as an additional check on progress.

## Mapping the ILEG indices to the local resource decision making process

The dimensions of governance outlined in the previous section are important for determining the effectiveness of the entire district resource allocation and implementation process (see Figure 3.2). The ILEG measure of transparency and accountability covers the whole of the local government's resource allocation process. Indicators under this dimension assess the public availability of information on all aspects of the process as well as assessing the level of stakeholder participation. Efficient resource use largely measures the effectiveness of the planning and budgeting process. For example, it assesses the extent to which the annual education work plan includes measureable outcome indicators and that differences between planned and realized expenditure are close enough to suggest that planning mechanisms are producing realistic budgets.

Measures of the quality of management control systems largely focus on the implementation, monitoring and evaluation of the district education budget. For example, this dimension of governance looks at whether districts have procurement guidelines in place and whether systems to document and disseminate good practice in education exist. However, it also measures the effectiveness of district education offices in terms of their management of the planning process. The coverage and quality of education data is assessed by the management information systems component of the ILEG. This information is central to the planning and budgeting process as it provides the basis for effective decision making as well as a way to assess the effectiveness of the investments made.

**Figure 3.2 Mapping the ILEG dimensions of governance to district resource allocation and implementation process**




*Note:* The figure above gives examples of ILEG indicators in each of the four governance dimensions and how each dimension maps to the local planning and budgeting process.

## 3.3 Survey implementation

The majority of indicators used to assess the quality of local governance were obtained through a district survey conducted in 2009 and 2012. The survey consisted of a set of questionnaires that were administered in all relevant district departments (see Table 3.1).[18] Information was collected primarily through interviews with key respondents and reviews of relevant documentation (e.g. existence of regulations, budgets, activity plans etc.). Similar information was frequently collected from different sources which allowed information on the indicators to be verified. In general, the main respondents to the questionnaires were section heads or the relevant sub-section head.

18 Four schools in each district were also visited and enumerators completed a school based questionnaire. These schools were generally the closest schools to the local administrative offices. The data collected at the school level is not used in the report.

**Table 3.1 Description of the main survey instruments[19]**

| Questionnaire | Areas covered |
|---|---|
| Regional Development Planning Board (Bappeda) | Planning and budgeting procedures, existence of local laws and regulations, data policy, capacity building including BEC program |
| Office of income/revenue, management of financial and district assets (DPPKAD), District Secretary (SEKDA) | Planning and budgeting, capacity building including BEC program, budget revenue and expenditure, grants and financial aid, BEC spending, cash management, accounting and reporting, debts and public investment, asset management, goods and services procurement |
| Inspectorate, monitoring agency and legislative assembly | Internal monitoring, community and legislative assembly participation, capacity building |
| District Education Office (3 questionnaires) | Capacity building including BEC program, data policy, education data, education budget and expenditure, funds received from central government, education management, information management, systems for good practice dissemination |
| District office of Religious Affairs | Capacity building including BEC program, education management, Islamic school data, school activity planning and budgeting, data procedures and coverage |
| District education board and school committee | Characteristics of district education board, school supervision characteristics, systems for good practice dissemination |
| School level | School education and budget information, management, functioning of school committee |

Qualitative case studies were also carried out in four of the selected districts in an attempt to gain a deeper understanding of changes in governance and the role of the BEC program. Two provinces were selected and in each, districts with similar levels of education outcomes and measures of governance in 2009 were identified. In each province, two districts were selected; a district showing significant improvement and a district with more modest improvements in education governance between 2009 and 2012. The key findings of the case studies are reported in full in Appendix 2 and used throughout the main report to illustrate some of the quantitative findings.

19 The 2012 included the same questions to ensure that indicators could be constructed in the same way. However, the 2012 survey included some additional questions and sought to collect some additional information to explore some of the indicators in more detail.

## 3.4 The Basic Education Capacity Program

The Basic Education Capacity (BEC) program aimed to support capacity development in the education sector through the provision of technical assistance and capacity building grants to district education offices. The ILEG survey conducted in 2009 provided an assessment of the strengths and weaknesses of local governance in the 50 participating districts (see Box 3.2). This assessment was used as an input into the development of district capacity development plans that outlined activities that would support capacity development in the five areas of governance outlined in Section 3.1. Each district received a grant of approximately USD255,000 to support the activities outlined in their capacity development plans between 2009 and 2012. However, delays in the disbursement of these grants meant that in the initial year of the program support to districts was solely provided through technical assistance from the MoEC and World Bank.

**Box 3.2 Awareness raising for capacity building: Bangkalan district**

Since 2010, the education budget has exceeded 40 percent of the total district budget. Nevertheless, the trend in spending has been largely toward physical infrastructure development which is not uncommon in many districts. The district secretary, the highest non-elected district government official, who sits on the Annual Budget Review Committee believes that there is a need to increase understanding about the importance of capacity building in the achievement of quality outcomes. The capacity development planning process for BEC grant disbursement is seen as one of the mechanisms which have raised awareness about the significant impact of education focused capacity development.

The initial assessment was also used to tailor technical assistance from MoEC and the World Bank to the specific needs of each district. This assistance covered a variety of areas but included training on public financial management, asset management, performance based budgeting and monitoring and evaluation. It also supported improvements in information systems through the development of a Tool for Reporting and Information Management by Schools (TRIMS) (see Box 3.3), support to improving the allocation of local school grants (see for example, World Bank 2012a) and support for ongoing improvements to national good practice dissemination networks (WAPIK).

**Box 3.3 The Tool for Reporting and Information Management by Schools (TRIMS)**

Access to valid, reliable data is essential for decision-making, planning, monitoring. Technical assistance provided through the BEC program resulted in the development of a mechanism for decentralized data collection and analysis: the Tool for Reporting and Information Management by Schools, commonly known as TRIMS. It provides schools and districts with a user friendly data collection tool that integrates fully with the national data collection mechanism PAS (School Application Package).

TRIMS has the ability to generate school and district level reports to help schools and districts make better informed decisions on how to improve education performance. It also shifts the focus of key education staff from data collection to a deeper focus on data verification and validation which can raise the quality of local decision making. TRIMS also reduces the time taken to collect and report information. In the past, these tasks took between 2-6 months but with TRIMS the entire process takes less than 2 months.

The 2012 ILEG was designed to assess progress in improving the quality of local governance in the 50 BEC districts. The 2012 round collected information on the activities funded through the capacity building grants and also on local government staff views on the program. However, it was not possible to collect detailed information from the local governments on the technical assistance provided by the Ministry of Education and Culture (MoEC) and the World Bank.

Performance indicators used to monitor progress under the BEC program were similar to some of the ILEG survey indicators. Table 3.2 maps the ILEG index areas onto the key performance indicators used to monitor district progress under the BEC program. While education service provision standards were monitored as part of the overall BEC program, they were not explicitly included in the key performance indicators used to monitor district progress. All other areas monitored by the BEC program match with areas assessed by the local education governance survey. However, the mapping is relatively loose with the ILEG survey covering a broader set of indicators and areas than those monitored under the BEC program.

**Table 3.2 Matching key performance indicators of the BEC program with ILEG dimensions**

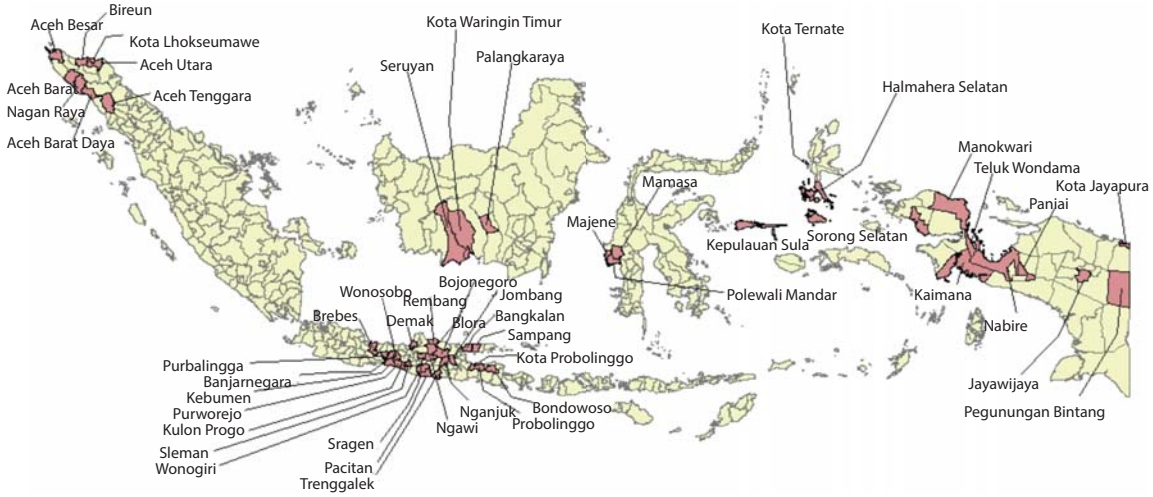
| | Key performance indicator areas | ILEG dimension |
|---|---|---|
| 1 | Government of Indonesia education policy reviewed through policy analysis and studies used to inform education policy | - |
| 2 | Education budget information available at local level. | Transparency and accountability |
| 3 | Budget & expenditures are well defined, cost-based, linked to performance indicators. | Efficient resource use |
| 4 | Education budget execution rates at local levels. | Efficient resource use |
| 5 | Effective internal information, audit and control systems in place | Management control systems |
| 6 | Community-based accountability reviews take place | Transparency and accountability |
| 7 | Accurate, reliable, appropriate and timely information available for planning, budgeting and performance assessment | Efficient resource use |

*Note*. Under each key performance area there are a set of indicators used to monitor progress. See Appendix 3 for details.

## 3.5 Characteristics of participating districts

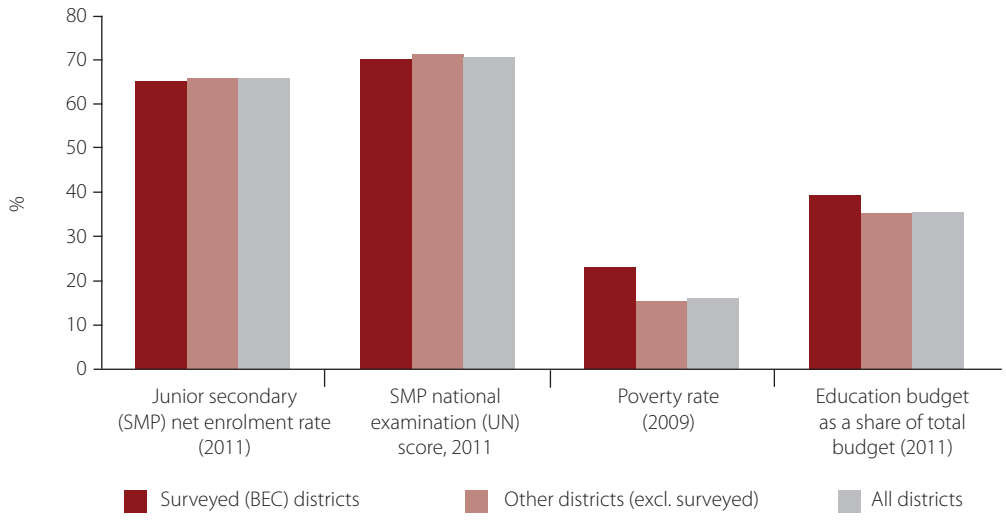
The ILEG survey was conducted in all of the 50 districts participating in the BEC program which were located in 9 of the 33 provinces of Indonesia (Figure 3.3). Districts were selected in 2008 for inclusion in the BEC program on the basis of a range of socio-economic and education outcome indicators as well as a demonstrated commitment to improving their capacity to deliver education services. While the sample is in no way representative of all Indonesian districts it provides some important insights into governance challenges at the local level. In order to provide this insight however, it is useful to compare some key characteristics of surveyed districts with other districts in Indonesia.

**Figure 3.3 Map of districts covered by BEC and the ILEG survey**




Participating districts tend to have similar education outcomes to other districts but tend to be poorer (Figure 3.4). Enrolment rates from primary to junior secondary since 2008 are similar between surveyed districts and the national average. However, poverty rates are approximately 7 percentage points higher in surveyed districts. While the surveyed districts exhibit greater commitment to the education sector; they devoted 40 percent of their budget to education compared to only 35 percent in the other districts. Despite this greater commitment to education spending, per school age child was slightly lower in surveyed districts.

**Figure 3.4 Comparison of key characteristics between surveyed and non-surveyed districts**




*Notes:* budget data is for planned APBD expenditure.
*Source:* district enrolment and poverty rates are taken from Susenas (July round), examination results from MoEC and education budget data from Ministry of Finance (http://www.djpk.depkeu.go.id).

## 3.6. Limitations of the approach

The ILEG survey provides a snapshot of the quality of key areas of governance associated with providing basic education in 50 districts. However, in interpreting the results it is important to keep in mind a number of limitations:

1. **Gaps in the measurement of local education governance**. While the ILEG survey covers most aspects of local governance in some detail there are some areas that are not measured. For example, many definitions of governance include assessments of the effectiveness of corruption controls but this is not measured in the ILEG survey. Other surveys of local governance in Indonesia where perceptions of corruption have been included have shown that they play an important role in local government effectiveness (KPPOD and Asia Foundation 2011). While recent evidence is thin it does suggest that corruption in the education sector limits the effectiveness of government spending (Kristiansen and Ramli 2006; von Luebke 2009; Suryadarma 2011)
2. **Link between overall quality of local governance and school operations are not fully explored.** A key role of district administrations is to support their schools through the provision of resources and technical support. Schools, on the other side are required to plan and effectively utilize these resources. While the quality of the mechanisms to support schools are captured in the ILEG survey the extent to which schools plan and utilize resources effectively is not fully explored in this study.[20]
3. **The focus of the ILEG survey is mainly on conventional schools**. While information on madrasahs is collected, the management and governance of these schools is largely outside the control of local governments. The ILEG index is therefore based on an assessment of conventional schools that fall under the control of local governments as defined by the 2003 education law.
4. **Differences in data on education systems can be considerable**. As part of the study, information on enrolment rates, teachers and budgets were collected from a number of different national and local government sources. Variations in the value of indicators between these different sources can be very large. Where possible the analysis uses the most reliable source of information but it points to a key weakness of education information systems that have the potential to undermine the ability of monitoring and accountability mechanisms.
5. **Components of the ILEG index only assess whether regulations and processes to manage resources effectively have been established.** While the existence of regulations and processes are an important first step it is also crucial to assess whether they are being used appropriately. For example, there is a difference between the existence of regulations allowing public participation in local parliamentary sessions and effective participation in these sessions. In some areas it was not possible for the ILEG survey to assess whether regulations and processes were leading to meaningful participation.

20 Some aspects of the effectiveness of school based management have been explored in other studies and provide a useful complement to the findings reported here (see for example, USAID 2010; World Bank 2012d)

Chapter 4

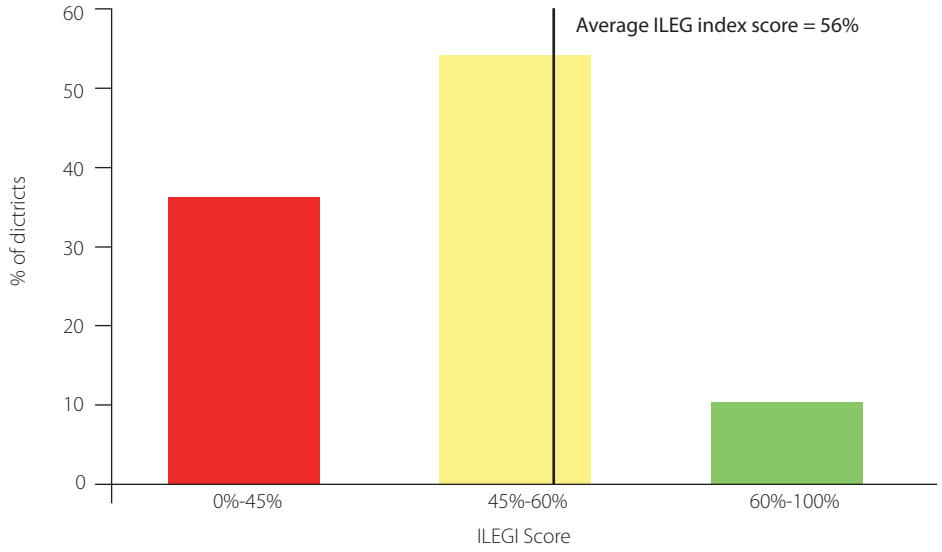
# The State of Local Education Governance

This chapter uses the overall ILEG index and its sub-components to report on the current state of local education governance in participating districts and how it has changed between 2009 and 2012. The ILEG index ranges between zero and one with higher values associated with better governance. To ease interpretation, districts are also categorized into three groups depending on their scores; districts that score between 0 and 45 percent are categorized as low performers, between 45 and 60 percent, average performers and local governments with scores above 60 percent as high performers. The chapter also explores the links between the support provided through the Basic Education Capacity program and the changes in local governance recorded by the survey.

## 4.1 A snapshot of local education governance in 2012

The results of the survey show that the overall quality of local governance in the 50 participating districts was in the middle of the performance range. In 2012, the average ILEG index score was 56 percent indicating that on average, districts were just over half way towards the conditions associated with good quality governance in the education sector (Figure 4.1).

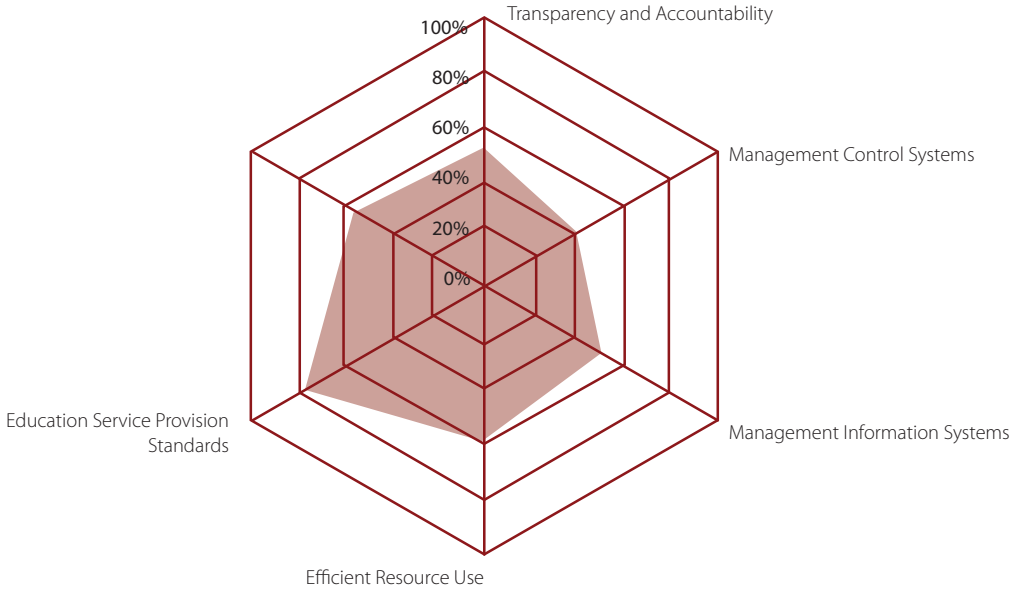
**Figure 4.1 Indonesian local education governance index, 2012**




*Source:* Local education governance survey data, 2012

The quality of local governance varies across the sampled provinces and districts in Indonesia. Approximately a third of all districts surveyed were categorized as having low performance (Figure 4.1). These districts have challenging governance environments which are likely to constrain efforts to raise education performance. In 2012, only 10 percent of districts are assessed to have high levels of education governance and are districts where local governance and management systems have the potential to support better quality school provision. The majority of districts surveyed fell between these two extremes and exhibit a mix of significant strengths in some areas and weaknesses in others. While it is not possible to assess governance in all regions in Indonesia it is clear that there are large differences. Surveyed districts in Jawa Timur province were categorized as high performing compared to districts in Papua and Papua Barat that were generally assessed to be low performing.

**Figure 4.2 Average dimensions of education governance in 50 Indonesian districts, 2012**




*Source:* Local education governance survey, 2012

The overall ILEG index masks differences across the specific areas of governance measured by the survey (Figure 4.2). Local governments appear to perform strongly in terms of the education service provision standards the survey measured. This predominantly reflects the high level of access to primary and junior secondary schools in the surveyed districts. For example, the average primary and junior secondary net enrolment rate for the participating districts was 84 percent in 2010, the latest year for which reliable information is available. However, a significant proportion of the districts had not achieved some of the other standards by 2012. For example, 43 percent of districts had not achieved the assessed standard associated with the minimum qualification levels of primary school principals.

District performance in terms of the effectiveness of management control systems was also relatively weak. The average score across all districts for the management control sub-index was only 40 percent (Figure 4.2). Less than 20 percent of the surveyed districts were classified as high performing and over 40 percent were assessed to be low performing. The survey found that very few districts incorporated school development plans into their annual work plans and few had incentive systems in place for key education personnel. The documenting of innovations and best practice in order to disseminate these experiences to other schools was also weak in many districts and accounted for the relatively low assessment of the quality of management control systems.

Unpacking survey results into the five broad areas of governance shows a more complicated picture of the strengths and weaknesses of local government capacity. What are the factors that drive the relatively good performance of districts in terms of efficient resource use and the poorer performance in terms of the effectiveness of management control systems? The remainder of this section looks more closely at each area in an attempt to answer these kinds of questions.

## Transparency and accountability

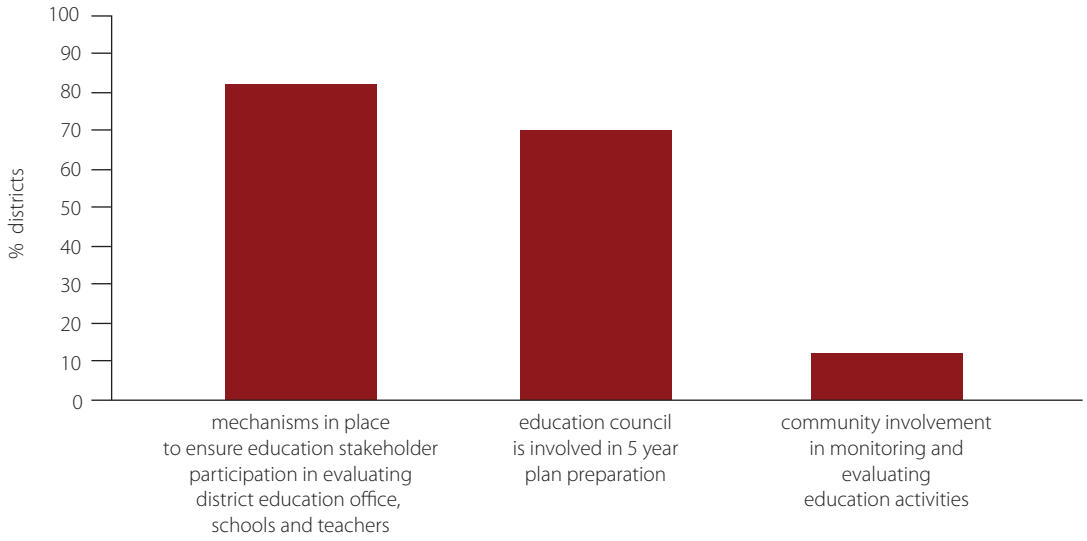
This area assesses the practices and regulatory efforts made by local governments to enable transparent and accountable governance in education service delivery. Based on the measurable indicators of this component, transparency and accountability is rated at a similar level to the overall ILEG index.

Local governments are taking time to comply with the national Freedom of Information Law which was passed in 2008 and implemented in 2010. The Law encouraged local governments to establish ways to enhance community participation and to ultimately strengthen accountability. This has required local governments to make public, information on the decisions made about the use of public resources. However, local legislation on transparency and accountability lags behind national policy; less than a fifth of surveyed districts have enacted local legislation on transparency.

The ILEG survey shows that almost all district education offices are producing reports that provide information on how public resources are being used. However, the survey found that these reports were not disseminated widely. For example, only 29 percent of districts publicized their financial reports in the local mass media and only around a half of districts allowed public access to parliamentary budget and audit discussions. Qualitative case study work also revealed the constraints that some districts face in making information available to their constituents. For example, in Kaimana efforts to make documents accessible to the public is limited by the lack of local newspapers, intermittent internet access and difficulties in communicating with the most remote communities.

The survey reveals a mixed picture in terms of stakeholder participation in education sector development. On the one hand, stakeholder participation in education planning and target setting was quite high but on the other, communities were less involved in the monitoring and evaluation of planned activities (Figure 4.3). The survey did not assess the extent to which local communities, through school committees, participated in school level decision making and monitoring. However, a study assessing the implementation of school based management showed that real participation by the local community was rather limited despite the existence of forums and committees set up for this purpose (World Bank 2012d).

**Figure 4.3 Participation in education planning, monitoring and evaluation**




*Source:* Local education governance survey, 2012

## Management control systems

This area of the ILEG index aims to assess whether key management systems required for improved education performance are in place and functioning. The first component of the sub-index measures the extent to which local governments have systems in place to integrate different inputs into the education planning process. The second component assesses the quality of local government procurement and asset management while a third component documents the existence of performance incentives for key education personnel. The final component of the management control system index measures the capacity of the district education office to document and disseminate education innovations and examples of good practice.

While most local governments took account of village and municipal planning consultations only a few districts made efforts to integrate school development plans into their education sector planning process. In 2012, 88 percent of sampled districts integrated inputs and recommendations from the annual village level municipal level planning and consultative meetings (MUSRENBANG). As part of school-based management reforms, schools have developed annual development plans to define priorities, outline activities to achieve these priorities and ultimately to allocate their resources. These plans are submitted to district education offices to introduce an element of bottom-up planning to better match district resources with school needs and ultimately to raise education outcomes. The survey revealed that the intention of recent school based management reforms had not yet been fully realized; only 12 percent of district education offices consolidated school development plans to use in their district education planning process.

Despite a number of presidential regulations that have attempted to strengthen and standardize public procurement procedures there are still considerable weaknesses in local government procurement. In 2010, a presidential regulation (54/2010) sought to improve public procurement procedures but this has not led to significant improvements at the local level. While the presidential regulation marked a significant improvement in procurement, a number of gaps remained when compared with international best practice. There is some evidence that local governments have adopted the national procurement guidelines but the survey revealed some important weaknesses. For example, in 2012 less than half of sampled districts used a bidding process in all procurement. Local governments have also not taken the opportunity to strengthen their own procurement regulations with only a third of local governments issuing their own technical procurement guidelines.

Recent efforts by the Ministry of Finance to tighten financial control mechanisms appear to have had an impact. In the early years of decentralization, local governments held a large number of different bank accounts which made financial reporting difficult and raised significant barriers to improved transparency. The State Finance Law (2006) introduced a single treasury account and 72 percent of sampled districts have since complied (see Box 4.1). These districts typically hold one bank account with the regional development bank and use codes based on agreed accounting standards to report expenditure. However, anecdotal evidence suggests that these new controls are being undermined by the common practice of requesting advance payments and depositing these resources in separate accounts that are not included in financial reports.

**Box 4.1 Strong leadership improved financial reporting in Bangkalan and Sorong Selatan**

Case study visits to Bangkalan in East Java and Sorong Selatan in West Papua highlight the importance of strong leadership in the district finance office in efforts to improve education management.

A range of framed news articles in the district finance office attest to Bangkalan's outstanding performance in financial reporting. In 2012, several district governments visited to learn about the district's impressive achievement in getting the highest rating – Unqualified (*Wajar Tanpa Catatan*) -- for the 2010 and 2011 financial report audits from the Supreme Audit Board (*Badan Pemeriksa Keuangan* - BPK). These achievements are still attributed to the head of the finance department between 1970 and 1992 who established a high bar for meticulous and disciplined reporting. These standards have been upheld by his successors and are reflected by progress in asset management indicators used for the ILEG survey and the BEC program.

The district of Sorong Selatan in West Papua was established in 2004 and the Bupati focused on improving local infrastructure before strengthening the human resources of the local administration. Key to this focus was the recruitment of a highly credible leader for the District finance office. In close collaboration with the head of the district education office training schemes were developed to improve education asset inventory preparation and maintenance. The improvements in asset management have been a contributory factor to recent improvements in its BPK audit results. In 2010, the district received a qualified opinion on its audit report compared to disclaimer findings in previous years.

*Note:* An unqualified opinion is given by the auditor when she concludes that the financial statements of the district give a true and fair view in accordance with the financial reporting framework. This is the best opinion an auditor can give.

Systems to document and disseminate examples of education innovation and good practice are still relatively poorly developed. Schools and teachers in districts frequently develop innovative techniques to raise education outcomes and make the best use of available resources. District education offices can play a key role in documenting and supporting the scaling up of successful local initiatives. However, in 2012, the ILEG survey found that most districts did not have well-established systems to record and disseminate good practice. For example, a systematic approach to cataloguing innovative good practice was only evident in 17 percent of sampled districts.

Only a few districts have incentive and sanction systems in place for key education personnel despite their potential to raise education performance. Incentive systems were in place for school principals and teachers in about one of every five districts. The most common incentive systems cited were financial with the national teacher certification program frequently mentioned. Sanctions were largely confined to verbal and written warnings. Incentive schemes for school supervisors were far less common with less than 10 percent of districts reporting schemes of this kind.

## Management Information Systems

Accurate and timely information is vital for effective planning and monitoring of local education systems. For example, data on the size, characteristics and the current deployment of district teaching forces is necessary if teachers are to be distributed equitably and allocated to schools according to national and district standards.

The ILEG survey shows that districts have functioning databases covering most key primary education indicators. The ILEG survey scored districts on the coverage of their primary education management information system. Over 30 indicators were used to assess the coverage of the education database including student numbers, enrolment rates, examination results, drop-outs, teacher characteristics and information on school infrastructure. Based on this assessment, districts were categorized into three groups. Approximately a half of districts had education information databases that had almost complete coverage of the indicators assessed. A further 44 percent were judged to have more limited coverage.

Despite the existence of education management information systems there are still considerable differences in information collected from different sources (Table 4.1). In some cases, the differences in the value of indicators between different sources are quite close but in others there are large differences. For example, there is a difference of 10 percent in the number of PNS teachers recorded in Kotawaringin Timur district information systems compared to the national NUPTK database. This may be partly related to the large proportion of districts that do not have data verification systems. For example, in 2012, only 38 percent of sampled districts had data spot checking systems in place.

**Table 4.1 Differences in key education indicators from different information sources for three districts**

| | Junior secondary net enrolment rate, 2011 (%) | | | No. of PNS primary school teachers (2009/10) | | | Primary enrolment | | |
|---|---|---|---|---|---|---|---|---|---|
| | Susenas | Local govt. | abs. % diff | NUPTK | Local govt. | abs. % diff | BOS (2010/11) | Local govt (2011/12) | abs. % diff |
| Kotawaringin Timur – Kalimantan Tengah | 65 | 68 | 4 | 1,807 | 1,645 | 10 | 54,045 | 53,601 | 1 |
| Kulon Progo - Yogyakarta | 59 | 99 | 40 | 2,315 | 2,308 | 0 | 34,655 | 32,454 | 7 |
| Kaimana - Papua | 61 | 63 | 3 | 312 | 274 | 14 | 8,932 | 9,354 | 5 |

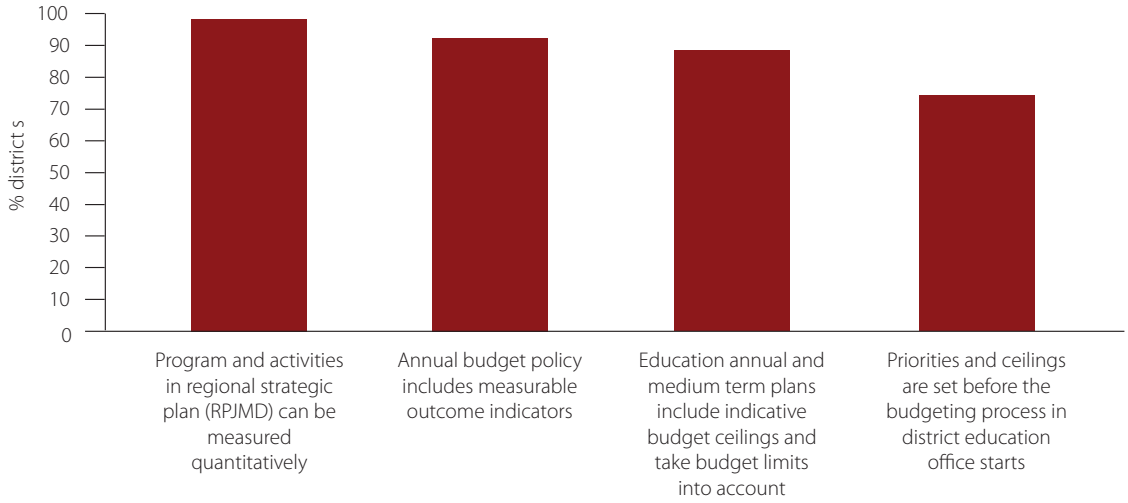
*Source:* Local government figures taken local education governance survey. BOS enrolment figures from http://bos.kemdiknas.go.id.
*Notes:* figures from local government for PNS teachers are for 2011/12 whereas data from the NUPTK is for the 2010/11 school year. BOS figures for 2010/11 school year. Figures exclude madrasahs.

## Efficient resource use

This dimension of governance assesses the extent to which local governments have systems in place to effectively plan, budget and monitor resource use. In order for these systems to work effectively, a clear planning timetable needs to be articulated and adhered to. Without this, inputs into the planning process cannot be coordinated effectively and forums for stakeholder participation may not feed into the process effectively. Efforts to ensure better local resource management were embodied in the 2003 state finance law that started implementation in 2006. In particular, the law introduced medium term expenditure frameworks into local planning and budgeting. This represented a shift from earlier annual input based budgeting to a medium term planning horizon with a focus on the expected outputs of planning and budgeting decisions.

The ILEG survey shows that these national reforms appear to have fed through to local education planning and budgeting practices. For example, nearly all of the sampled districts (92 percent) include measurable outcome indicators in their annual budget policies (Figure 4.4). In local education offices, planning and budgeting processes appear to be functioning well with priorities being established before budgets for specific activities set. However only a third of sampled district education offices had drafted an education planning and budget calendar for 2011 or 2012. The qualitative survey also highlighted recent innovations in budgeting that districts have been adopting to match resources to need (see Box 4.2).

**Figure 4.4 Characteristics of local planning and budgeting activities, 2012**




*Source:* Local education governance survey, 2012

**Box 4.2 Performance and equity based school grants**

Kaimana faces the challenges of supporting large numbers of small schools with limited access to transportation scattered across an area of approximately 18,500km. The absence of sub-district education offices (UPTD Pendidikan) means that school supervisors have to travel between 4 – 6 hours by rented boat (costing IDR 8-10 million) to visit schools at the end of the coastline.

To address the disparity between the higher costs of school operations in these peripheral locations compared with those in the district capital, the local government issued a local regulation in 2010 to make available local government grants (BOSDA) based on a formula which considers access and performance. This new formula based BOSDA has resulted in a shift in the way district funding is allocated for larger town schools and for smaller and more remote schools (World Bank 2012a). Technical assistance has been provided under the BEC program for focus group discussions and awareness-raising to determine the components of the formula and to support implementation. Early findings from school visits suggest that the program is meeting its objectives. Kaimana is committed to continue using its locally developed formula, refine its use and establish a mechanism for monitoring and evaluating its implementation and impact.

While planning and budgeting processes appear relatively good, proxy indicators measuring the outcome of these processes paint a more mixed picture. A close match between the original budget and the actual resources spent is often used to measure the effectiveness of planning and budgeting. Large differences between budgeted and actual spending are frequently a sign that the original planning process was weak and does not provide an effective mechanism to allocate resources to priority areas. Most sampled districts had relatively large differences between planned and realized spending; two-thirds of districts had differences greater than 10 percent over the last three years. However, this is likely to be driven in part by factors outside of local government control. In particular, the constitutional obligation to devote 20 percent of the total government budget to education makes the overall education budget sensitive to revisions in the overall budget. Large energy subsidies and the fluctuating price of oil has meant that budget revisions in recent years have been large and have had a significant impact in planning and budgeting processes in the education sector as whole (World Bank 2013b).

### Education service provision standards

This area gives an overview of the levels and quality of primary and junior secondary education services in the district. The ILEG survey shows relatively high levels of access to primary and junior secondary schooling which mirror broader national progress in this area. Some districts have also registered significant improvements in national examination results (Box 4.3) As a result of the national teacher certification program, teacher qualifications have been improving rapidly over the last five years. This is most notable at the primary level where a greater proportion of teachers did not have a bachelor's degree when the program was introduced. Despite recent progress (see Section 4.2) there are still significant differences in qualification levels between primary and junior secondary school teachers; at least 40 percent of primary school teachers had a bachelor's degree in 57 percent of districts whereas almost all districts (96 percent) had achieved this level of qualification amongst their junior secondary school teaching force.

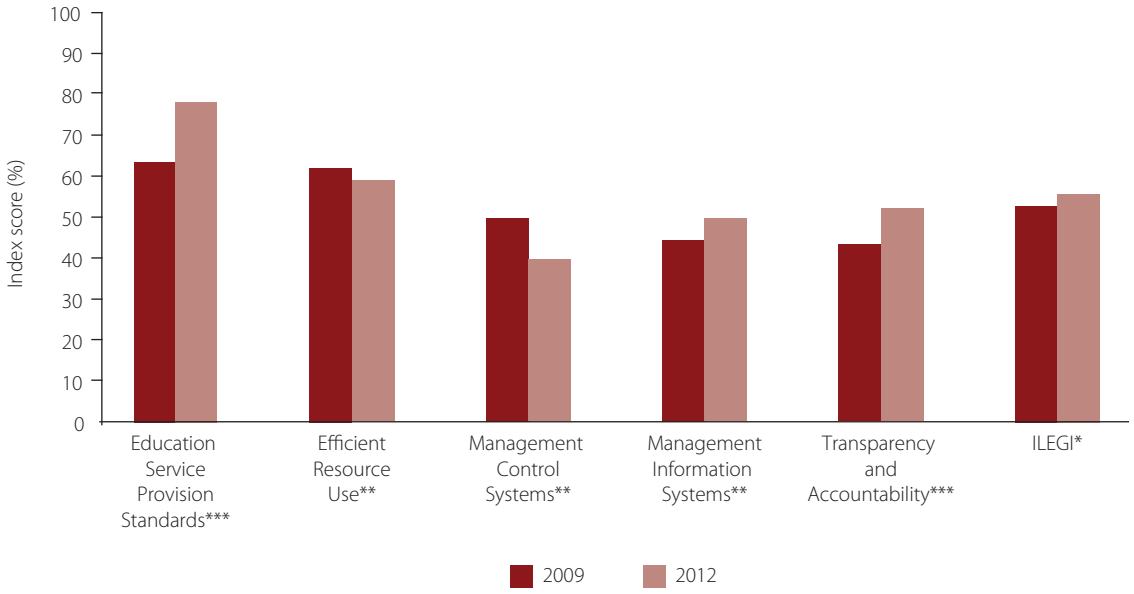
**Box 4.3 Commitment to education quality in Kaimana**

It is clear that Kaimana district is focused on improved learning outcomes and education service provision by significantly increasing teacher training and development opportunities. In 2011 teachers, principals, supervisors and parents from schools in the district capital advocated and showcased efforts to provide stronger oversight of the national examination to ensure the quality of Kaimana's graduates. In 2011/12 although there was a decrease in Junior Secondary national examination scores, particularly in the district capital, the schools believe that this approach will ensure the quality of Kaimana's future graduates. As well, since 2009 approximately 194 Senior Secondary School graduates were selected as trainee teachers at teacher training institutes in Java and Papua. A further 150 non-S1 teachers are currently participating in a teacher upgrading program conducted by Teacher Training Lecturers flying in from Bandung. Future plans include teacher training in Mathematics, Physics and Biology for which a budget allocation has already been made.

## 4.2 Changes in governance between 2009 and 2012

Education governance has improved between 2009 and 2012 but overall these improvements have been small. The overall ILEG index increased by 3 percentage points but the quality of local education governance remains firmly in the middle of the performance range (Figure 4.5). However, there have been some notable shifts in the distribution of districts along the performance range measured by the index. The proportion of districts assessed to perform in the low category of the ILEG fell from 28 percent to 16 percent and the proportion categorized as middle performers increased from 38 to 54 percent (Figure 4.6). These results show that district governments are moving in the right direction although absolute improvements have been relatively small.

**Figure 4.5 Changes in education governance between 2009 and 2012**

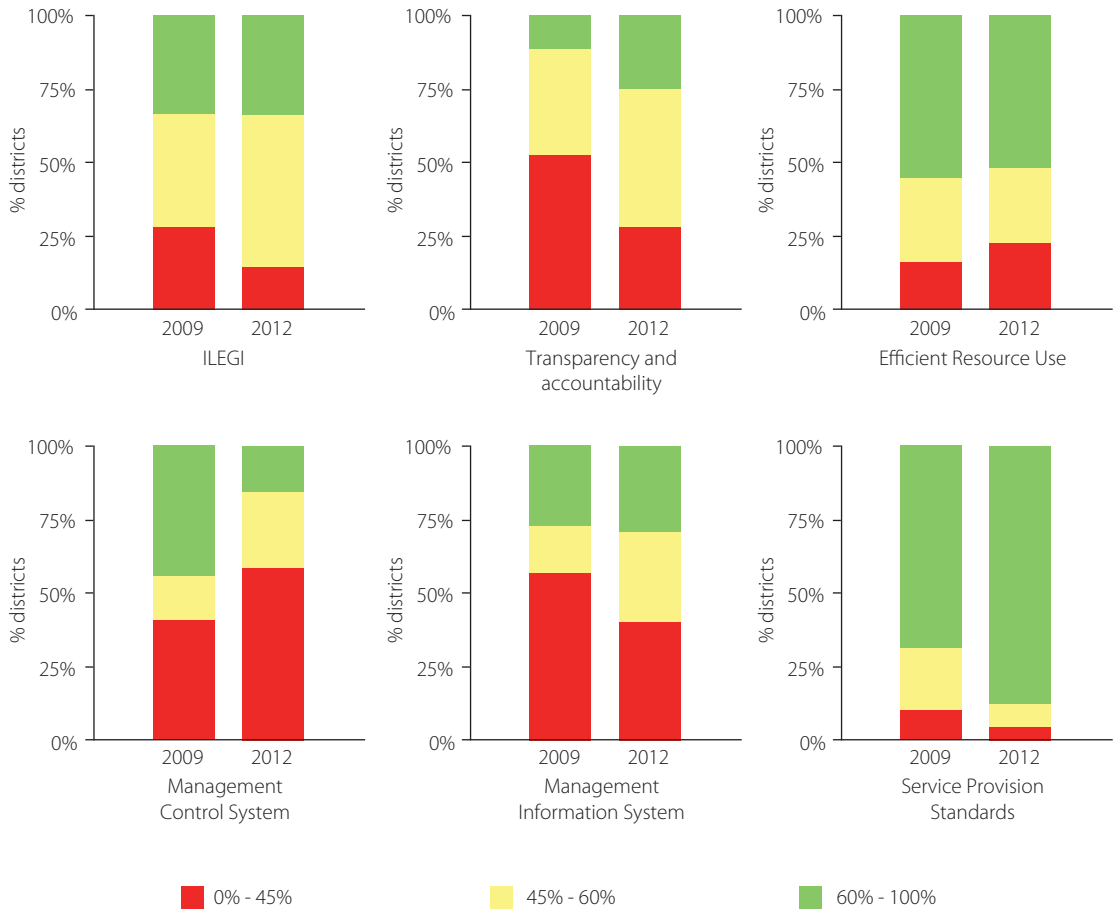



*Source:* Indonesian local education governance survey, 2009 and 2012
*Note*: Asterisks indicate the level of statistical significance of a test between the 2009 and 2012 indices - *** - significant at the 1 percent level, ** - significant at the 5 percent level, * - significant at the 1 percent level.

While the overall changes in the ILEG index are small there have been some significant changes in the sub-components of the index. The remaining part of this section takes a closer look at the changes in the ILEG sub-index.

There have been strong improvements in transparency and accountability in the sampled districts over the last 3 years. On average, participating districts are now performing in the middle instead of the bottom of the ILEG performance range and the proportion of districts categorized as low performing has fallen from 52 to 26 percent (Figures 4.5 and 4.6). Underlying these positive trends are a number of important factors. Improvements are seen most strikingly in efforts by local governments to encourage greater community participation in decision making and oversight activities. For example between 2009 and 2012 the proportion of districts that allowed public participation in parliamentary accountability and audit reporting sessions increased from 14 percent to 52 percent. Similar improvements in access were seen in the number of districts allowing public access to budget sessions in local parliaments. Improvements were also seen in the reporting procedures of local education offices. In 2012, nearly all of the district education offices were producing and making available progress reports on planned activities and budget disbursements.

**Figure 4.6 Change in district performance on the ILEG sub-indices**

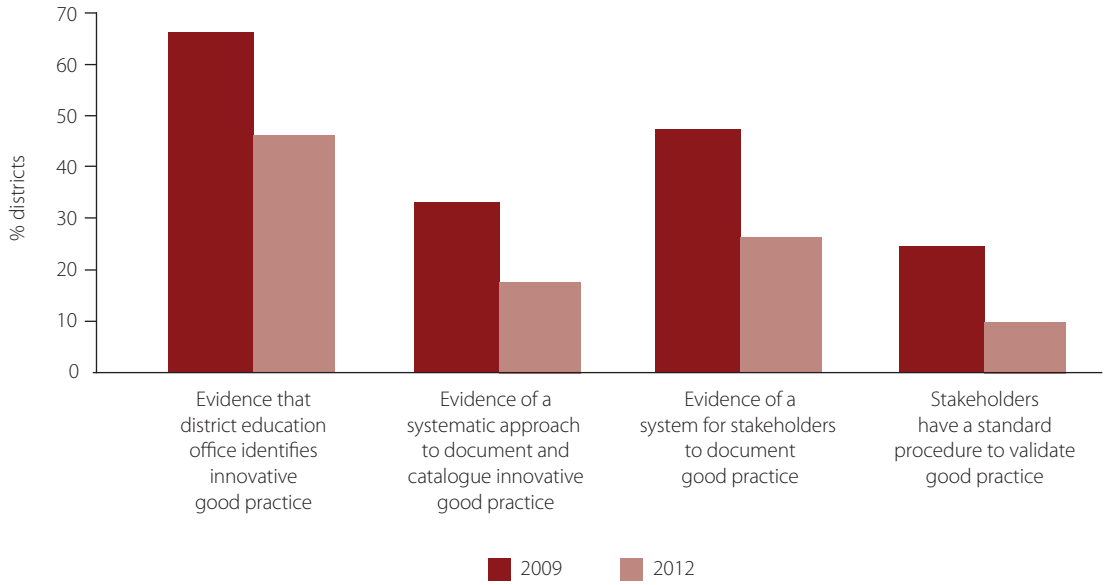



*Source:* Indonesian local education governance survey, 2009 and 2012

The effectiveness of management control systems in the education sector has deteriorated between 2009 and 2012. The proportion of districts categorized as low performers in this sub-index increased from 40 to 58 percent while the proportion assessed to be high performers fell from 44 to 16 percent (Figure 4.6). Efforts by local governments to systematically document and catalogue good practice seem to have weakened between 2009 and 2012 (Figure 4.7). In 2009 for example, two-thirds of districts made efforts to identify and document good practice whereas in 2012 this had fallen to less than half of all participating districts. This is of particular concern given the importance that local solutions play in improving the quality of education and the large number of well documented innovations that are taking place across Indonesia.[21]

21 See for example the ***Wahana Aplikasi Pendidikan dan Informasi yang Baik*** (WAPIK) website that documents good practice in schools across Indonesia (http://www.wapikweb.org/).

**Figure 4.7 District capacity to disseminate good practice in the education sector, 2009 and 2012**




*Note:* All differences between 2009 and 2012 are statistically significant at the 5% level or below.
*Source:* Indonesian local education governance survey data, 2009 and 2012

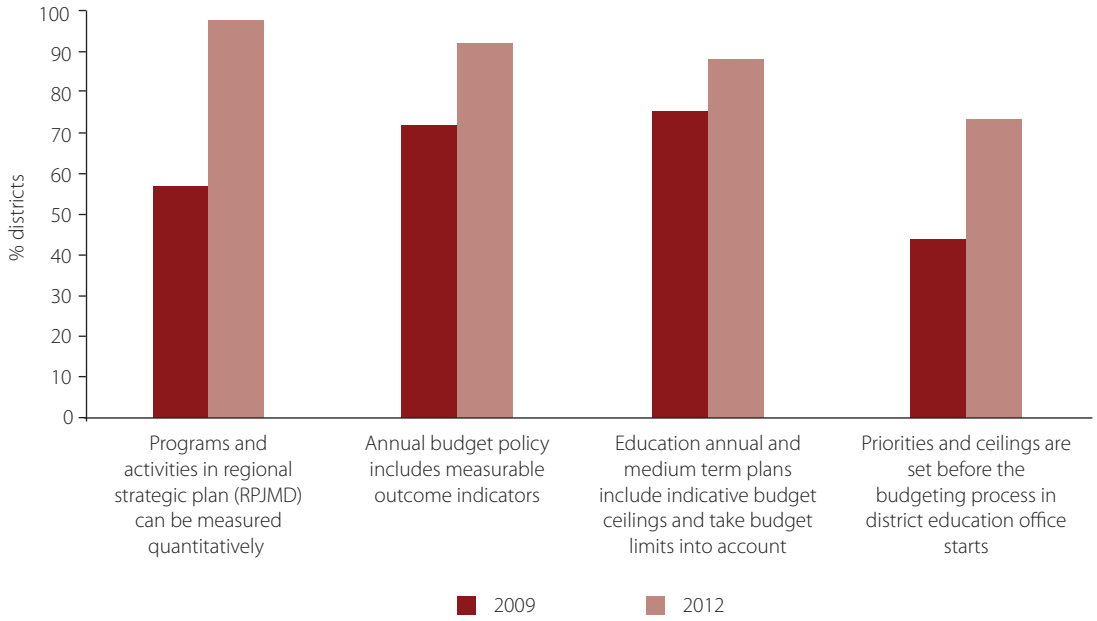
Despite these declines in systems for the dissemination of innovative practices some aspects of management control have improved over the last few years. In particular, asset management systems appear to have been strengthened between 2009 and 2012; a greater proportion of districts carry out yearly stock inventories and the proportion of districts with local legislation on asset management increased from 44 percent to 80 percent.

Districts have made moderate gains in the quality of their education management information systems between 2009 and 2012. This is evident from the drop in the proportion of sampled districts rated as low performers between 2009 and 2012. On the whole, small improvements have been registered across the indicators used to assess this area of governance. For example, a slightly higher proportion of district education offices have written procedures and protocols for data collection and verification and more districts are using centrally provided information systems such as the School Application Package (PAS).

The efficient resource use component of the index registered a decline with fewer districts rated in the high and middle performing categories in 2012 (Figure 4.6). However, the factors underlying this shift are more mixed. In 2012, fewer districts involved their education councils in the drafting of the education strategic plan than in 2009. In terms of budget planning, the number of districts reporting gaps between planned and realized spending of less than 10 percent in the last three years also fell from 46 percent to 32 percent. This suggests that the effectiveness of the planning and budgeting process has deteriorated. However, the large adjustments in revised budgets due to revisions to intergovernmental transfers suggest that this may be more the result of central government action than weaknesses in the local planning and budget process.

Local governments have also registered some important gains in the processes which determine how public resources are used (Figure 4.8). Some indicators in the efficient resource use component of the ILEG index have shown significant progress. For example, the proportion of districts that include measurable outcome indicators in their annual budgets increased from 72 to 92 percent. Improvements to the functioning of local planning and budgeting processes have also shown progress. Between 2009 and 2012 the proportion of districts that set budget priorities and ceilings before sector offices (e.g. the education office) start their own planning exercises increased from 44 percent to 74 percent. These improvements reflect, in part, recent efforts by the central government to introduce performance based budgeting and medium term expenditure frameworks.

**Figure 4.8 Changes in local planning and budgeting processes, 2009 and 2012**




*Note:* All differences between 2009 and 2012 are statistically significant at the 1% level except for differences in the number of districts that include indicative ceilings in their medium term plans which is not significant.
*Source:* Indonesian local education governance survey data, 2009 and 2012

In the 50 participating districts, education service provision standards have improved significantly. This has been the result of general improvements in access as well as the quality of key personnel in the education system. For example, the proportion of supervisors, school principals and teachers with a four-year university degree has increased dramatically over the three years. This is largely the result of the continued implementation of the national teacher certification program. The program has motivated teachers to obtain a university degree in order to be certified and obtain a professional allowance equivalent to their basic pay.

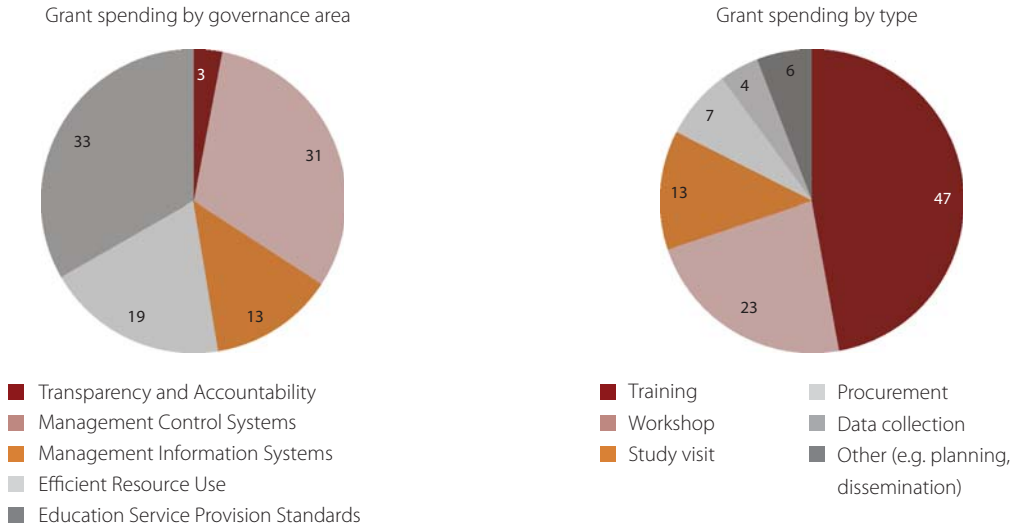
## 4.3. The BEC program and changes in local governance

The BEC program provided support to all of the sampled districts through technical assistance and the provision of local capacity development grants of approximately USD 255,000 over three years. The grants were designed to strengthen local education governance and improve education performance.[22] Grants were relatively small compared with overall education budgets; the total grant amount was approximately one percent of average annual education expenditure. The first round of the ILEG survey in 2009 was used to identify priorities for the use of these grants. The 2012 round of the survey collected information on the use of the grants and allowed an assessment of whether the grants and the broader BEC program had affected local governance. This section assesses whether the grants were targeted at the weakest areas and looks at progress in a set of indicators collected by the ILEG survey that were aligned with BEC program monitoring.

### Local government use of BEC capacity building grants

Over two-thirds of BEC local grant expenditure was devoted to capacity building activities associated with improving management control systems and standards of education provision (Figure 4.9).[23] Activities around management control systems included training on asset management, inventory control and capacity building to encourage stakeholder involvement in school and district level education planning. Under education service provision standards activities included school level training on minimum service standards and school based management (Box 4.4).

**Figure 4.9 BEC capacity building grant spending by area, 2009 - 2012**




*Source:* Indonesian local education governance survey data, 2009 and 2012

22 Simple difference in difference estimates showed no statistically significant differences in intermediate and final outcomes (education spending as a share of the total budget, education spending per child, primary and junior secondary net enrolment rates and UN scores) between 2009 and 2011 between BEC and other districts in Indonesia. Results are reported in World Bank (2013a).

23 Information on the use of capacity building grants is taken from the 2012 round of the survey. The District Project Implementation Units in each district were asked to provide detailed information on the use of the capacity building grants including disbursements by activity. This information was used to categorize activities according to the five areas and into the different types of activities reported here. The information provided by the districts accounted for approximately 80% of the resources that had been disbursed to local governments in the form of grants. The remaining amount had not been spent or accounted for at the time of the survey.

Approximately a half of all grants were spent on building school level capacity and a further 40 percent on activities focused on staff and processes in the district education office. Over 80 percent of resources at the school level were dedicated to strengthening education service provision standards. Spending and activities on strengthening management control systems and making efficient use of resources were focused mainly at the district education office. Nearly 70 percent of the total grant amount was used for training and workshops while a further 13 percent was used for study visits (Figure 4.9). Study visits were largely used to support learning from the experience of other districts and particularly around ways to make better use of existing education resources.

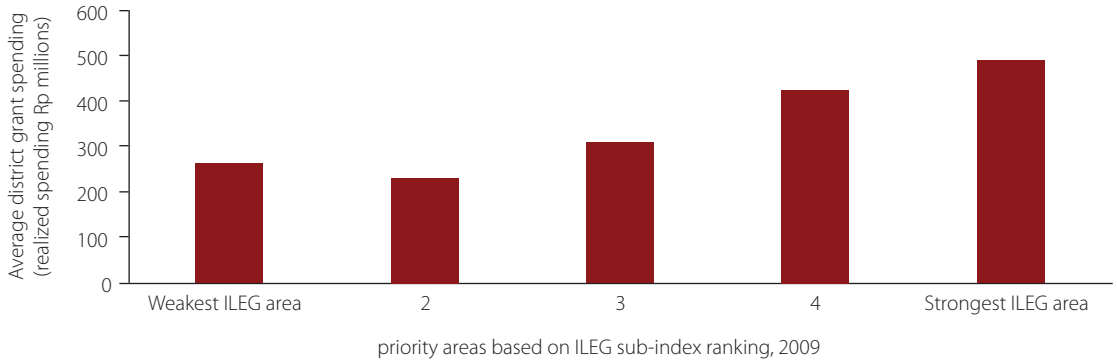
**Box 4.4 BEC grant use in Sorong Selatan**

BEC capacity development plans were shaped to meet local needs with Sorong Selatan one of the first BEC districts to complete planned activities and disburse BEC funds in 2012. This was partly because the cost of conducting activities was up to 50 percent higher than costs in Java so disbursement occurred faster (and the L-BEC grant did not stretch as far). To compensate for this and to acknowledge Sorong Selatan's achievements in Education Service Provision and commitment to sustaining locally relevant BEC education governance and management activities, additional grant funds were allocated. Activities included teacher professional development for a wider coverage of schools and to enable the district to visit education policy makers in Jembrana (Bali) and Bojonegoro (East Java) to observe and learn from peers in other districts about the pressing need to develop its Education Perda (local regulation on education) and supporting policy.

The intended targeting of BEC grants to the weakest areas of governance identified in the 2009 ILEG survey does not seem to have occurred. In 2009, local governments developed capacity development plans based on an assessment of their needs in the education sector. The first round of the ILEG survey was designed to provide information for this assessment and to guide the use of capacity building grants. It was expected that local governments would use the capacity building grants to focus on the main areas of weakness identified by the ILEG survey and the broader assessment. However, it appears that areas assessed to be the weakest in the 2009 ILEG survey were allocated less grant resources than areas assessed to be stronger (Figure 4.10).[24] On the one hand, for example, in 2009 districts ranked relatively highly on the ILEG sub-index for education service provision standards but this area received the largest share of BEC grant resources. On the other hand, district scores on the transparency and accountability sub-index were the lowest in 2009 but this area received the smallest BEC grant allocation (see Figure 4.9).

24 The correlation between the ranking of the ILEG sub-indices and the ranking of grant spending areas confirms the findings in Figure 4.11. The correlation coefficient is 0.32 and is significant at the 5% level.

**Figure 4.10 Average BEC grant spending by 2009 priorities identified by ILEG**




*Source:* Local education governance survey data, 2009

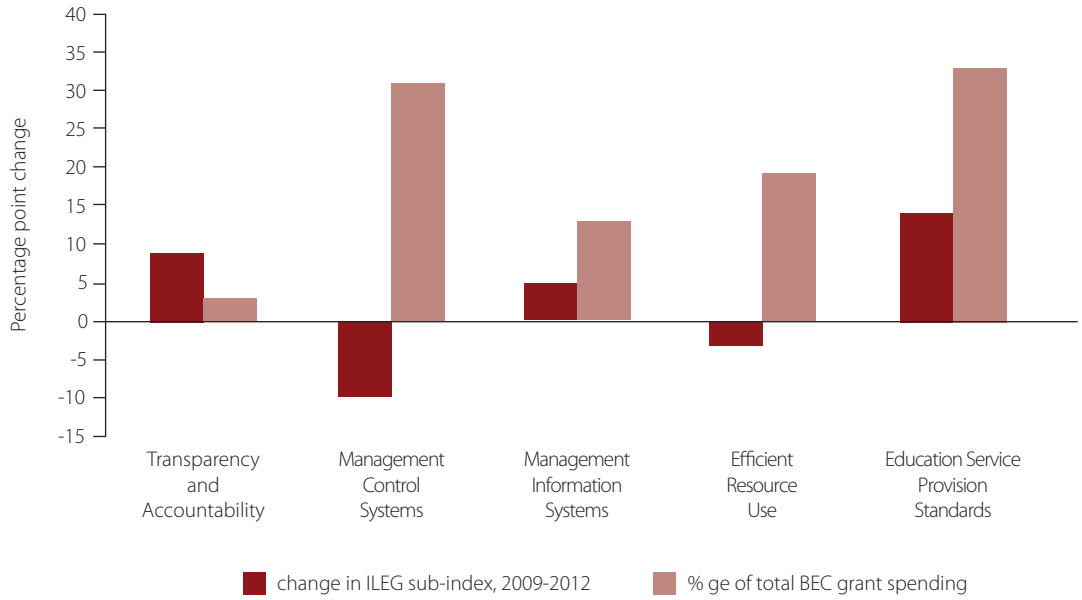
## BEC capacity building efforts and strengthening local education governance

It is not possible to directly attribute the changes in the quality of local education governance highlighted in Section 4.2 with capacity building efforts of the BEC program. The current study was not designed to evaluate the BEC program in this way and there are dangers associated with making these kinds of comparisons. First, as Chapter 2 outlined there are many other factors outside of the capacity of local governments that determine the quality of district education governance measured by the ILEG index. For example, national regulatory changes can affect local education governance but are not themselves affected by capacity building efforts at the local government level.[25] The survey did not follow an experimental or quasi-experimental approach and it is therefore not possible to rigorously control for these other factors. Second, capacity building efforts undertaken as part of the BEC program are unlikely to have an immediate effect on local governance. Given that most BEC capacity building activities started in the middle of 2011 it is unlikely that their effect on the local governance environment have worked their way through the system. Third, as the previous section has shown, nearly half of all BEC grant resources were directed at school level interventions. However, the ILEG index did not track school level governance and therefore the effects of these capacity building efforts are not adequately captured.

Matching BEC grant spending with progress in local education governance further highlights these limitations (Figure 4.11). Nearly a third of all capacity building grant expenditure went on developing management control systems but performance in this area declined and many districts moved into the low performing category. At first sight this appears contradictory. However, on closer inspection, 51 percent of capacity building activities in this area were conducted at the school level and the ILEG sub-index does not measure management control systems at the school level. Significant capacity building efforts were also directed at improving education service provisions standards and progress in terms of the ILEG sub-index was also large. However, the improvements recorded by the index were largely due to improved qualification levels of teachers driven by the national teacher certification policy.

25 Technical assistance from the central government and the World Bank were also not captured in the survey but are likely to have affected local governance.

**Figure 4.11 BEC grant spending and progress in local education governance, 2009-2012**




*Source:* Indonesian local education governance survey data, 2009 and 2012

While the ILEG index provides a comprehensive assessment of local education governance it is possible to draw out of the index indicators that are more directly related to the BEC program. A small subset of the 56 indicators used by the ILEG index was also included as part of the key performance indicators used to monitor progress on the BEC program. While the ILEG index does not measure all of the key performance indicators it is useful to see how these indicators have changed during the period the BEC program supported capacity building efforts in the district.

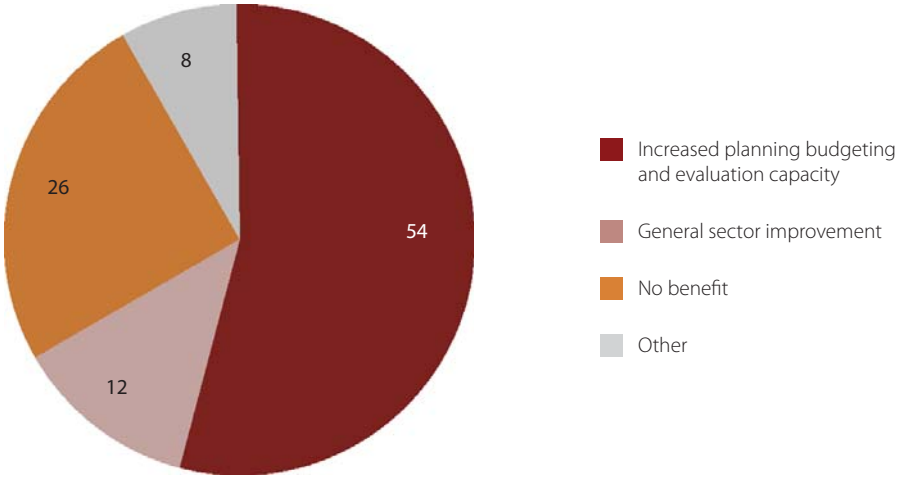
**Table 4.2 Progress on selected BEC key performance indicators**

| BEC key performance indicator | ILEG index area | ILEG index indicators most closely matching BEC indicators | Performance (% districts) | |
|---|---|---|---|---|
| | | | 2009 | 2012 |
| KPI 2: Publicly available information on education budget | Transparency and accountability | Financial reports are publicized in the local mass media | 28 | 29 |
| KPI 6: Community based accountability reviews take place | Transparency and accountability | Community is able to attend local parliament session discussing accountability and audit reports | 14 | 52 |
| KPI 3: Budget & expenditures are well defined, cost-based, linked to performance indicators | Efficient resource use | Education medium term and annual plans include indicative budget ceilings | 76 | 88 |
| | Efficient resource use | Planning and budgeting documents easily accessed by public | 26 | 26 |
| KPI 4: education budget execution rates | Efficient resource use | Difference between planned and realized expenditure is less than 10 percent in last 3 financial years | 46 | 32 |
| KPI 5: effective internal information, audit and control systems in place | Management control systems | Procurement of goods and services carried out with a bidding process | 54 | 46 |
| | Management control systems | Goods users carry out a yearly stock inventory | 49 | 56 |

*Source:* Indonesian Local Education Governance Survey, 2009 and 2012.

Trends in the BEC key performance indicators are similar to trends in the overall ILEG index between 2009 and 2012. While the ILEG index indicators are close proxies it should be noted that they do not measure the KPIs directly. Table 4.2 provides a summary of the ILEG index indicators most closely associated with 5 of the 7 BEC Key Performance Indicators. Trends in the KPI proxy indicators follow a similar pattern to the overall sub-index of the ILEG index they are most closely associated with. For example BEC key performance indicators on transparency and accountability (KPIs 2 and 6) generally show significant progress. However, indicators of efficient resource use show a more mixed picture. BEC key performance indicators associated with management control systems have moved in opposite directions; a greater proportion of districts carry out a bidding process for procurement whereas fewer districts appear to carry out yearly stock inventories (see Table 4.2). However, weakened good practice systems which factor in the decline of the overall ILEG index on management control systems do not appear in the BEC key performance indicators.

**Figure 4.12 District official views of the BEC capacity building program**




*Source:* Indonesian Local Education Governance Survey, 2012.

The quantitative survey also asked respondents in the District Secretary's office (SEKDA) and the Regional Development Planning Board (Bappeda) about the perceived benefits of the BEC program (Figure 4.12). Over half of the respondents stated that the program had helped to improve their capacity to plan, budget and evaluate more effectively. Approximately 20 percent of the other respondents mentioned other benefits that had led to general improvements while the remaining 26 percent mentioned that the program had not benefited the district significantly.

Chapter 5

# The Link between the Quality of Local Governance and Education Performance

The previous chapter has shown that the education governance environment has changed in a number of important ways between 2009 and 2012 in the 50 districts included in the study. In particular, the results have shown that there have been improvements in indicators of transparency and accountability and the effectiveness of management information systems and the use of resources. On the downside, the survey has also highlighted a decline in the effectiveness of management control systems and the effective use of resources. These are important changes but how have they affected the way local governments manage their education systems and have they affected education outcomes?

This chapter explores the association between local governance quality and education outcomes. It utilizes the ILEG index and its sub-components to explore the link between governance and management on intermediate and final education outcomes. The chapter shows that local governance is important and efforts to improve the effectiveness of management control systems and transparency and accountability mechanisms are likely to have significant pay-offs in terms of improved education outcomes. The chapter also recognizes, however, that improvements in the quality of local governance and decision making take time to feed through to better education outcomes.

## 5.1 Governance and education performance

Before embarking on new analysis, it is important to review previous work that has tried to explore the links between the quality of governance and district performance. [26] A number of studies have attempted to explore the relationship between governance and economic growth using cross-country analysis. A major challenge of this work has been on assessing the extent to which improvements in governance are responsible for higher performance or whether faster rates of economic growth have allowed countries to invest more heavily in the institutions vital for better governance. Perhaps unsurprisingly, studies have shown that the relationship is two-way with governance both affecting and being affected by economic growth. For example, a cross-country study using some measures similar to those used in the ILEG survey show a strong positive relationship between the quality of governance and economic growth (Kaufman and Kraay 2002). However, the study also shows that growth impacts positively on the quality of governance.

26 This review is restricted to research studies that have used a similar quantitative approach. Reviews of the broader governance and education literature are also available (see for example, Crouch and Winkler 2007; Lewis and Pettersson 2009)

There has been less attention in the cross-country literature on the links between overall levels of governance and education outcomes. Cross-country research exploring the role of governance on public spending, health and education outcomes showed that the effectiveness of public education spending was largely determined by the quality of governance (Rajkumar and Swaroop 2008). For example, the effect of public education spending on primary education attainment is higher in countries with better quality governance. Other studies have explored specific aspects of the governance and service delivery relationship. For example, a recent study has shown that levels of corruption affect negatively the overall levels of public spending and on the share of these resources allocated to education (Delavallade 2006).

In Indonesia, recent research has shown that the relationship between the quality of local governance and economic growth is weak. Using a dataset of perceptions of the quality of economic governance in 243 Indonesian districts the study did not find a strong relationship between the quality of governance and economic performance (McCulloch and Malesky 2010). However, the study points to the importance of structural factors in determining the quality of local governance. For example, it shows that natural resource endowments and population size influence the governance environment.

Research in Indonesia has also looked at the impact of corruption on the effectiveness of public education spending (Suryadarma 2011). Using Transparency International's Corruption Perception Index the study shows that higher perceived levels of corruption reduce the efficacy of public education spending on enrolment outcomes. However, the study finds little effect of perceived corruption on differences in national examination results between districts.

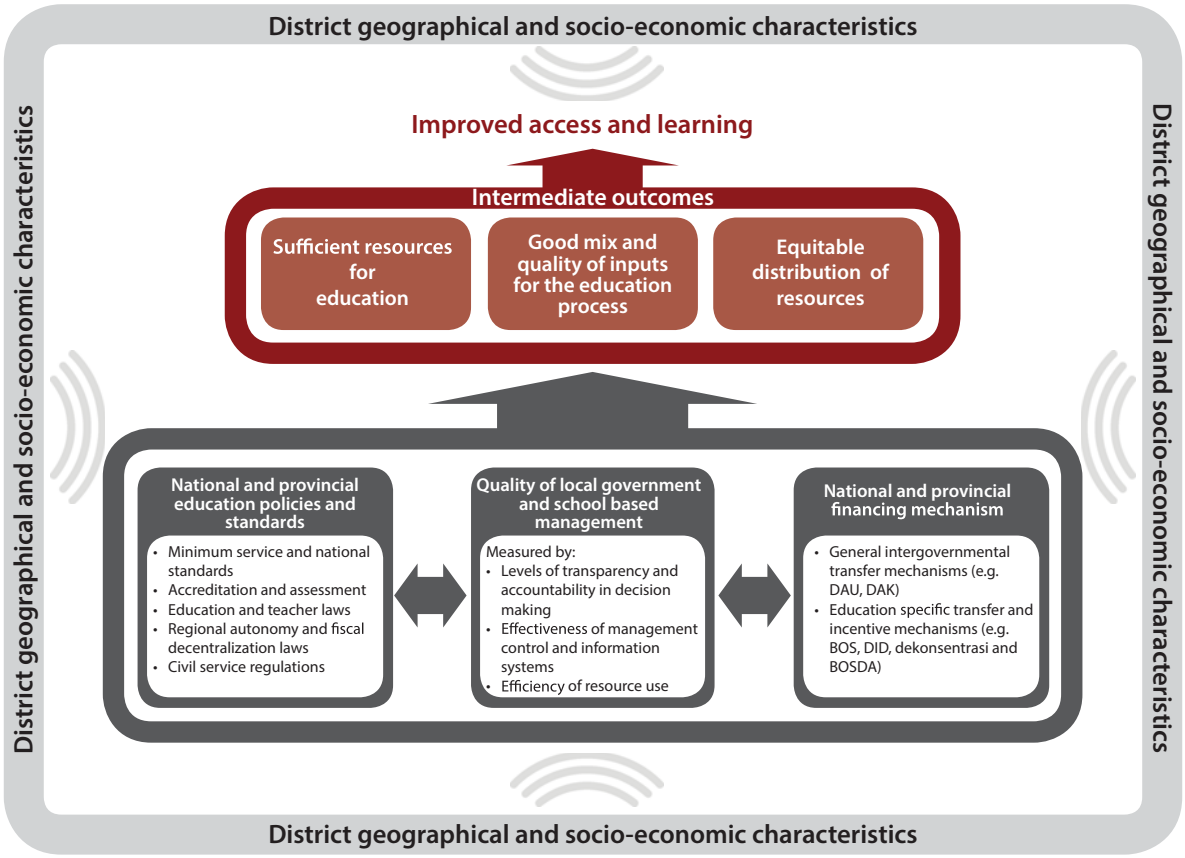
It is possible using the results from the ILEG survey to further explore the relationship between governance and education outcomes at the district level in Indonesia. Furthermore, using the data collected as part of the survey it is possible to learn more about how different aspects of the local governance environment affect education sector performance.

## 5.2 Methodology

This chapter uses the ILEG index to explore the association between the quality of local governance and education sector outcomes. The organizing framework, outlined in Figure 5.1, is used to select a set of explanatory variables that can influence intermediate and final outcomes. The framework shows that the quality of local governance is only one determinant of local education performance. In order to explore the relationships between local governance and education performance it is necessary to try and control for other factors that also affect the relationship. For example, district poverty rates are likely to affect the ability of households to support their children's education and will affect levels of enrolment and completion independent of the effect of the quality of local government. The size of central government transfers to districts and schools are also likely to have an

independent effect on intermediate and final outcomes. Table 5.1 outlines a set of indicators that have been selected to proxy for the different parts of the framework outlined in Figure 5.1.[27] We use simple ordinary least squares regression analysis to try and isolate the association between local governance and education performance having controlled for these other factors.[28]

**Figure 5.1 A framework for exploring district education performance**




27 Some other factors (e.g. population size, density, size of school age population) were included initially as proxy indicators but were removed because they were not statistically significant and also to keep the models simple.

28 An alternative approach to using OLS would be to exploit the panel nature of the data (50 districts across two time periods) and use panel data fixed effects estimates to provide more efficient estimates by controlling for district level heterogeneity. OLS estimates are reported in the main text for two main reasons. First, the ILEG index is likely to be measured with a significant amount of error and this tends to significantly bias fixed effects estimates. Second, the relationship between changes in local governance and education outcomes is not contemporaneous; changes in local governance are likely to affect education outcomes only with a significant lag. Fixed effects estimates were estimated and are available in World Bank (2013a). They show a limited effect of the overall ILEG index but similar relationships for the management control system sub-index. Between effects models can also be used instead of the OLS approach. However, measures of the quality of the teaching force and its distribution were not available over time and could therefore not be included in this analysis. Between effects estimates on the other variables show very similar results and are available in World Bank (2013a) .

The education service provision sub-index is not included as part of the explanatory variables that determine local government education performance. The indicators included in the education service provision sub-index (e.g. net enrolment rates, qualification levels of teachers and administrators etc.) are a mix of final and intermediate outcomes which we expect the other aspects of the index (e.g. transparency and accountability measures) to influence. In the analysis reported in this chapter, we use a version of the ILEG index that excludes the education service provision measures.[29] We also explore the association between each sub-index of the ILEG index and education performance.

**Table 5.1 Indicator description and source**

| Framework | Indicator | Source |
|---|---|---|
| **Final Outcomes** | | |
| Access and Quality | Primary and junior secondary net enrolment rate | Susenas: 2009 to 2011 |
| | Primary and junior secondary UN national examination score | UN examination scores for SD and SMP, 2009 to 2011 |
| **Intermediate outcomes** | | |
| Sufficient resources | % of local budget devoted to education | Ministry of Finance: planned education spending share 2009 to 2011 |
| | Education spending per primary and secondary school aged child | ILEG survey: planned education spending 2009 to 2011* |
| Quality of inputs | % of primary and junior secondary school teachers with at least an S1 degree | NUPTK 2010 |
| Equitable distribution of resources | % of teachers distributed according to national standards | NUPTK 2010 |
| **Explanatory factors** | | |
| National and provincial financing mechanisms | Total local government budget per capita | Ministry of Finance: planned budget, 2009 to 2011 |
| Quality of local government | ILEG index excluding Education Service Provision sub-index | ILEG survey. Average of 2009 and 2012 values |
| | School committees are actively involved in education planning | ILEG survey |
| Geographical and socio-economic characteristics | Poverty rate in 2009 | BPS and Susenas |
| | Newly established districts: 0 – if district established prior to 2000, otherwise the number of years between 2000 and establishment | World Bank database for policy and economic research |

*Notes:* An average of 2009, 2010 and 2011 values for the indicator are used unless otherwise stated. Population based indicators use BPS reported total population in 2009. School aged population figures are drawn from Susenas 2009. Appendix 4 Table 1 provides descriptive statistics and simple correlations for the variables above.
* - planned budget is used where realized spending is unavailable.

29 This composite index is calculated in exactly the same way as the ILEG but averages the district score on only four of the areas measured by the index (i.e. transparency and accountability, efficient resource use, management control systems and management information systems).

As a first approach, the analysis of the determinants of district education performance uses average values of indicators between 2009 and 2012. This is partly to overcome measurement error issues in the variables of interest. It also reduces the effect of short-term fluctuations in the factors of interest which, due to time lags, may not have a direct effect on education performance.

It is more difficult to assess the effect of recent governance changes on education performance. It is expected that changes in the quality of governance between 2009 and 2012 would not immediately affect education performance. For example, improvements in parental participation in education decision making may take time to feed into improvements in the use of education resources and finally into levels of access and learning. Therefore, the effect of changes in the quality of district governance between 2009 and 2012 are unlikely to have had significant impact on 2012 education performance indicators. Despite these reservations we explore whether there is any relationship between changes in governance and education outcomes.[30]

Assessing the relationship between governance and education outcomes in this way has a number of limitations. First, it is difficult to establish causality. For example, it is initially assumed that the direction of causation runs from the quality of governance to education outcomes. However it is also possible that improved levels of education may result in better levels of governance because, for example, the quality of the local civil service improves which improves decision making. While this has been shown to be an important issue in other studies looking at governance and performance we do not pursue statistical approaches that attempt to isolate the effect of governance on education outcomes. Second, only 50 of the 530 districts in Indonesia are included in the ILEG survey and were in no way selected to represent the whole of Indonesia (see Chapter 2). Third, the indicators used to measure education performance and the variables used to proxy for key areas that are expected to influence education performance are only a selection of those that could be used. This should be kept in mind when interpreting the results. Finally, there are some key aspects of the local governance environment that are not captured in the ILEG. While the ILEG provides a comprehensive measure of many different aspects of governance there are other important indicators of governance that are not included. For example, studies have shown that the level of corruption can negatively affect district education performance but the ILEG survey does not measure this directly. The omission of these other factors has the potential to bias the results.

## 5.3 Results

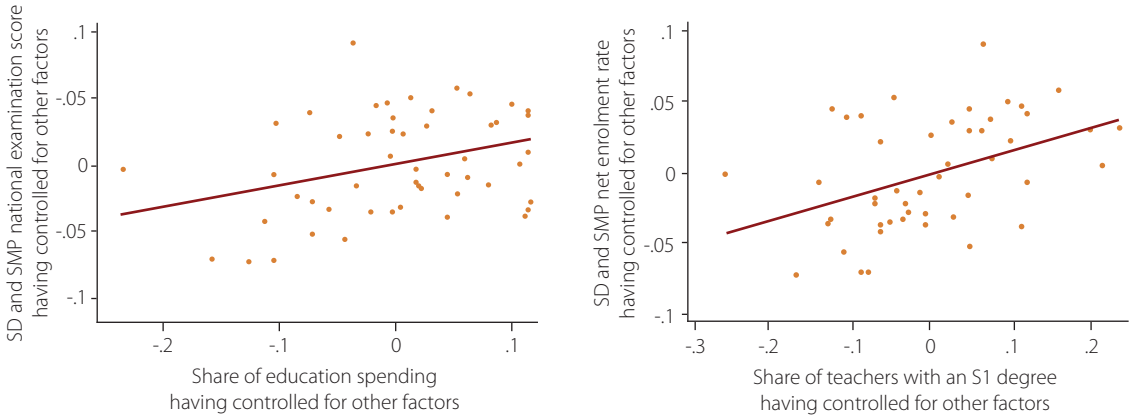
Following the framework outlined in Figure 5.1 the results are presented in three main sections. First, the link between intermediate and final education outcomes proposed in the framework is explored using the proxy indicators outlined in the previous section. Second, the analysis looks at whether the quality of education governance is a key determinant of intermediate outcomes. The final section also explores the direct effect of governance on education performance.

### The link between intermediate outcomes and district education performance

On the whole, decisions that districts make on education financing, the mix of education inputs to use and their distribution appear to be strongly associated with education outcomes. With the exception of the measure of the efficiency of teacher distribution, better intermediate outcome indicators are associated with better district education performance. For example, districts that prioritize education services and devote a greater share of their budget to education tend to have better education outcomes (Figure 5.2).

30 The results of this analysis are discussed in this chapter but the results are not included in the report. Results are available in World Bank (2013).

**Figure 5.2 Partial scatter plots of the link between intermediate and final education outcomes**



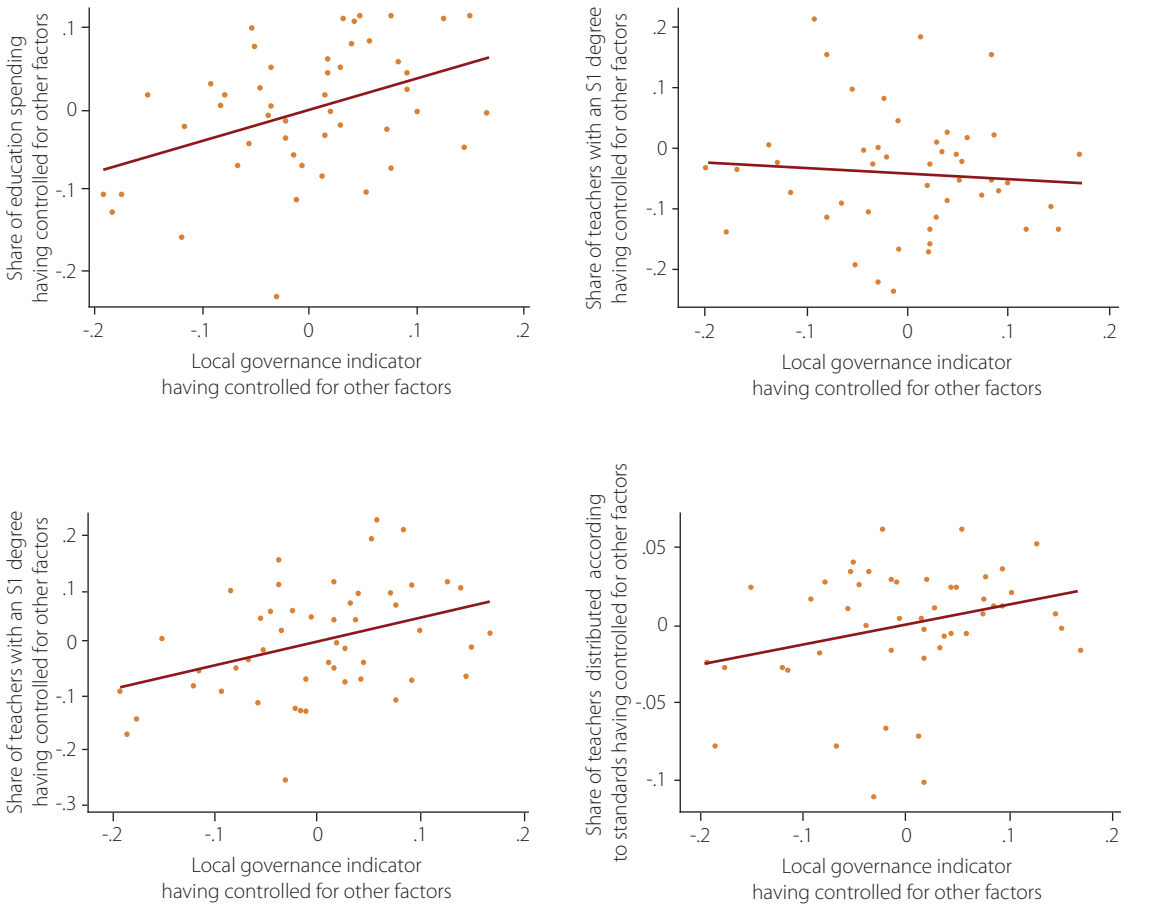

*Note:* The diagrams show the partial scatter plot between intermediate and final outcomes shown in Table 5.1. The variable on the vertical axis is the unexplained part of the final outcome variable once the other explanatory variables in the regression analysis have been controlled for (see Appendix 4 Table 1). The variable on the horizontal axis is the variation in the composite local governance indicator not explained by the same set of explanatory variables. All relationships are statistically significant at the 10 percent level or below with the exception of education spending per capita.

## The link between the quality of governance and intermediate education outcomes

The overall quality of local governance, measured by the ILEG index, is associated with better intermediate education outcomes. Figure 5.3 shows the partial scatter plots of the association between the overall governance measure and our measures of intermediate education outcomes. Districts with better assessed governance are also districts that prioritize education more in their budgets, have a greater proportion of teachers with bachelor's degrees and have a more equitable distribution of teachers.

On the whole, associations between governance and intermediate education outcomes are statistically significant and relatively strong. For example, a 10 percent increase in the overall local governance index is associated with an increase in the share of the budget going to education of about 4 percentage points. However, better quality governance does not appear to be strongly associated with levels of education spending for each child of primary or secondary school going age. Governance appears to be positively associated with our proxy for the quality and mix of inputs; a 10 percent increase in the local governance index is associated with an increase in the share of primary and junior secondary teachers with a bachelor's degree of 4 percentage points. The distribution of teachers also appears to be better in districts with better governance quality; a 10 percent increase in the overall governance index is associated with a 6 percentage point increase in the share of teachers that are distributed according to existing staffing norms. This means that in better governed districts a larger proportion of schools have the right number of teachers which in turn is likely to improve overall levels of education quality.

**Figure 5.3 Partial scatter plots of the quality of governance and intermediate education outcomes**

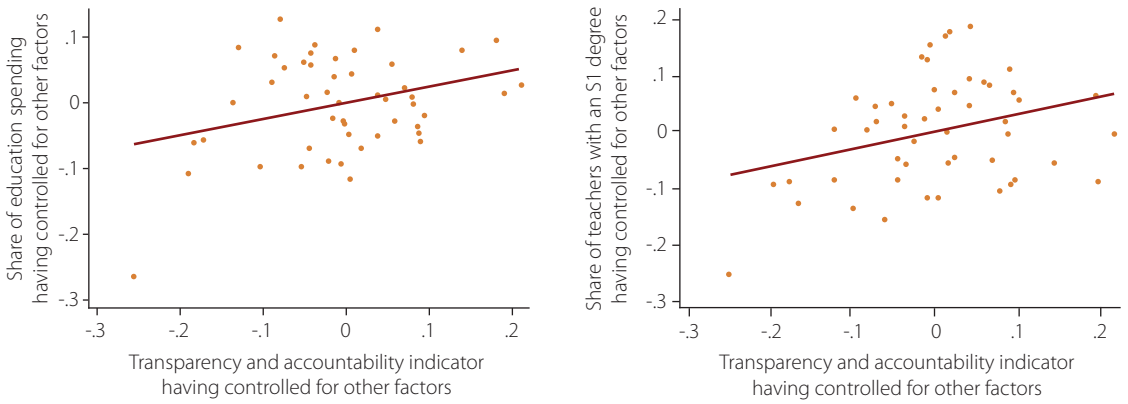



*Note:* The diagrams show the partial scatter plot between the composite local governance indicator and each intermediate outcome shown in Table 5.1. The variable on the vertical axis is the unexplained part of the intermediate outcome variable once the other explanatory variables in the regression analysis have been controlled for (see Appendix 4 Table 1). The variable on the horizontal axis is the variation in the composite local governance indicator not explained by the same set of explanatory variables. All relationships are statistically significant at the 10 percent level or below with the exception of education spending per capita.

*Source:* Indonesian local education governance survey data, 2009 and 2012

The level of district transparency and accountability is an important link between governance and performance. It is possible to explore the main factors driving the relationships shown in Figure 5.3 by breaking down the composite local governance index into its component parts. Transparency and accountability comes out as having a particularly strong and statistically significant association with the intermediate measures of district education performance (Figure 5.4). Districts with better levels of transparency and accountability tend to prioritize education more and have a higher proportion of qualified teachers compared with other districts. These results suggest that education performance is higher in districts where greater effort is made to produce and disseminate information about the use of public resources. The results also suggest that performance is better in districts that encourage greater participation of key stakeholders (e.g. local education boards) in the education decision making process.

**Figure 5.4 Transparency and accountability and intermediate education outcomes**




*Note:* see Appendix 4 Table 1 for the full results and the note to Figure X1 for an explanation of the partial scatter plots shown. All relationships are statistically significant at the 10 percent level.
*Source:* Indonesian local education governance survey data, 2009 and 2012

Management control systems are also important in explaining differences in district education performance (see Appendix 4 Table 2). For example, the distribution of primary and secondary school teachers tends to be better in districts with higher scores on the management control sub-index of the ILEG. The sub-index includes a number of important areas that are likely to lead to general improvements in intermediate outcomes. District incentive systems for education personnel and the integration of village, municipal and school level planning processes into district level decision making are all likely to lead to better decisions on budget allocations and the distribution of key inputs such as teachers. The sub-index also measures district systems for recording and disseminating good practice. These are also likely to be important explanatory factors in improving education decision making around key inputs and addressing inequalities.

Intermediate education outcome indicators are also affected by levels of poverty. Education performance tends to be weaker in districts with higher poverty rates (see Appendix Table A1). This highlights the greater challenges faced by poorer districts in delivering good quality education services even after controlling for governance and the overall size of government budgets. The results show, for example, that poorer districts tend to have a smaller proportion of their teaching force distributed according to national standards. This is likely to reflect the difficulties faced in allocating teachers to poor and remote areas (see for example, UNCEN, UNIPA et al. 2012).

Recently established districts also have poorer intermediate education outcomes even after controlling for levels of governance. Newly established districts, in the sample, devote less of their overall budget to education and tend to have a smaller share of teachers with bachelor's degree.[31] The proportion of teachers that are distributed according to national standards is also higher for the more established districts; the proportion increases by an average of 1.5 percentage points for every additional year between 2000 and 2012 that the district had been established. Conversely, newly established districts tended to have a more inequitable distribution of teachers. These results are likely to reflect the challenges associated with and the time needed to establish the governance and accountability mechanisms necessary for effective education service delivery. For example, Sorong Seletan and Kaimana were both created in 2002 but have yet to issue the necessary regulations in the education sector and have so far not been able to set up education councils.

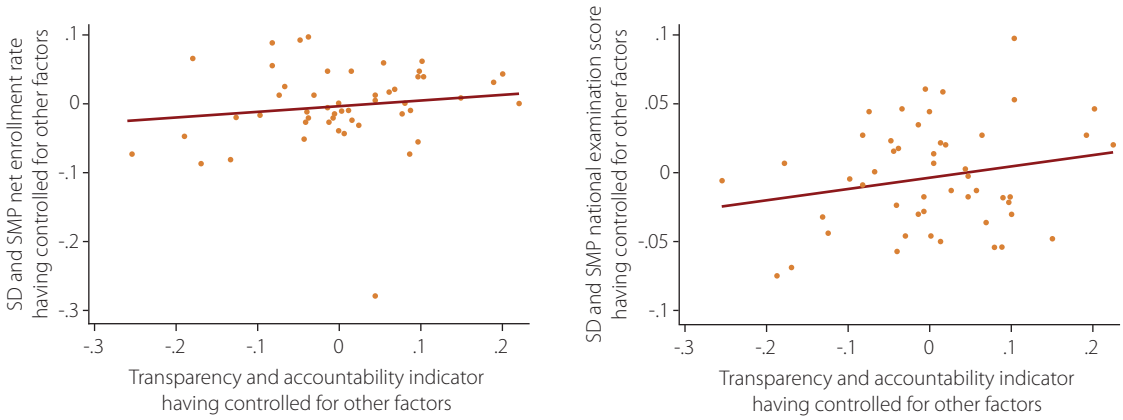
31 Ten of the 50 districts included in the analysis were established after 2000.

## Governance and education access and learning

While the quality of local governance is expected to affect education performance by improving local decision making (e.g. better intermediate outcomes) is there any direct association between better education governance and education performance? The direct effects of the overall quality of local governance on education access and proxy measures of quality are more mixed. The overall quality of local governance, measured by the ILEG index, is positively related to the average primary and junior secondary enrolment rates but it is not statistically significant. However, districts with better overall governance appear to have better national examination results compared to poorer performing districts; a 10 percent improvement in the overall governance index is associated with a 1.5 percentage point improvement in the average UN score.

Transparency and accountability again stands out as having a strong and positive association with education outcomes (Figure 5.5). When the individual components of the governance index are used in the analysis, the transparency and allowance index is positively associated with enrolment rates and examination scores. These associations are also statistically significant. No other sub-index is significantly related to these higher order outcomes.

**Figure 5.5 Partial scatter plots of the transparency and accountability sub-index and education access and quality**




*Note:* see Appendix 4 Table 1 for the full results and the note to Figure 5.3 for an explanation of the partial scatter plots shown. All relationships are statistically significant at the 10 percent level.
*Source:* Indonesian local education governance survey data, 2009 and 2012

## Governance and changes in education outcomes[32]

To what extent are changes in education performance seen between 2009 and 2012 associated with the quality of local governance? Has education performance improved more rapidly for districts with better measured local governance quality? It is possible with the information collected for the study to explore, at least partially questions like these. As a first step, changes in the intermediate and final outcome indicators between 2009 and 2011 were computed and similar regressions were run to explore whether our ILEG measures of governance were related to these changes.

32 The full regression results discussed here are not presented in this report but are available in World Bank (2013).

There were no strong associations between levels of governance and changes in education performance between 2009 and 2012. The analysis revealed that better average levels of governance were not associated with faster improvements in intermediate and higher order outcomes. The lack of a strong relationship may be driven by the lack of a variable in the regression analysis that assesses changes in governance. It may be expected, for example, that changes in education outcomes are larger where a district has made recent improvements in the quality of governance when compared with districts that have high but stable levels of governance. In order to explore this we look at the association between changes in governance and changes in education outcomes between 2009 and 2012. The results show little association with contemporaneous changes in governance and education outcomes. These results are perhaps unsurprising given the implicit assumption that changes in governance have an immediate effect on education outcomes. It is much more likely however, that changes in governance would only affect education outcomes after some delay. For example, improvements in the planning and budget process would take time to feed through to improvements in the quality of inputs used and would take even longer to see improvements in enrolment and examination rates.

## 5.4 Summary

The results described in this chapter demonstrate the existence of a link between the quality of governance and key indicators of education performance. They point to the importance of governance in explaining why the impact of increases in public education investment may differ across districts. They also highlight the need to strengthen local governance if education performance is to continue to improve.

The results also show that other district characteristics play an important role in determining education performance. In some districts, the quality of governance is likely to be affected by geographical and infrastructure constraints (e.g. lack of passable roads which hinder school supervision visits). In these districts it is likely that greater support and resources will be needed to raise the quality of governance and in time improve education outcomes. It also points to the need for capacity building programs to be tailored to the individual circumstances of districts.

The results also provide some conclusions about the effect of recent improvements seen in the ILEG index and described in Chapter 2. The results suggest that the improvements in transparency and accountability seen between 2009 and 2012 are likely to have improved education performance. On the other side, the declines in management control systems over the same period are likely to have worsened education performance.

Chapter 6

# Conclusions

Local governments play a crucial role in the delivery of basic education services. The report has shown that responsibility for key education decisions and a significant proportion of basic education financing come from district governments. In 2009, approximately two-thirds of all public spending on basic education was provided by district governments. This highlights the central role that local governments need to play in all efforts and strategies to achieve national education goals.

The findings of the ILEG survey demonstrate the importance of the quality of local governance in improving district education performance. The results presented in this report confirm findings from previous studies that show that the quality of local governance is a key determinant of education sector performance. Put simply, district education performance will not improve without strategies to address key governance constraints highlighted in the report.

Despite this central role, progress in strengthening local education governance over the last four years has been slow. The report shows clearly that the quality of local governance has not changed much since 2009 despite efforts to reform local governance and strengthen capacity. The overall ILEG index improved only marginally and this average performance shows that there is ample room to make the management and governance of district education more effective.

The results on overall district progress hide some important changes in specific dimensions of education governance. Efforts to introduce greater transparency, accountability and public participation into local decision making processes have led to some improvements in the overall governance environment between 2009 and 2012. In particular, improvements have been seen in efforts by some local governments to encourage greater community participation in decision making and oversight activities. However, these improvements are from a low base. For example, public access to budget sessions was introduced in an additional 20 percent of districts between 2009 and 2012 but still half of districts failed to provide access. Given the strong associations, highlighted in the report, between measures of transparency and accountability and education outcomes, further efforts to improve these dimensions of local governance are likely to have big pay offs.

Despite some recent improvements, the ILEG also highlighted significant weaknesses in the quality of local management information systems. Good information about the current strengths and weaknesses of the education system are likely to lead to better and more informed decision making when local governments plan

activities in the education sector. While the ILEG survey found that three quarters of districts had a functioning education database far fewer had developed effective systems to verify the quality of data. This results in large differences in reported levels of enrolment and numbers of teachers between different sources and hampers effective education sector planning, budgeting and monitoring.

The report also showed that the effectiveness of management control systems in the education sector has deteriorated between 2009 and 2012. This finding is particularly concerning because the report also found strong associations between education outcomes and this dimension of governance. In particular, systems to disseminate good practice are relatively underdeveloped and have been weakening over recent times. This represents a missed opportunity given the significant innovation that goes on in districts across Indonesia. It also found that efforts to ensure that school level planning fed into district level planning and budgeting processes have not been very successful so far. Given the benefits associated with school-based management and its emphasis in central government policy, further efforts to better link school and district planning procedures are clearly needed.

The effectiveness of education planning and budgeting systems appears to have fallen back but recent changes may lead to future improvements. The survey revealed that local planning and budgeting processes were in place and national reforms to strengthen these systems have largely been adopted at the local government level. For example, nearly all of the sampled districts include measurable outcome indicators in their annual budget policies. This represents an important shift away from input based budgeting to a stronger focus on outcomes. These reforms have the potential to improve the efficiency and effectiveness of public resource use. However, this does not appear to have occurred so far. The ILEG survey revealed significant disparities between planned and realized expenditure which point to weaknesses in the planning and budgeting of public resources.

The challenges highlighted by the report contribute to inefficiencies that are common across the education sector in Indonesia. For example, they contribute to the significant spending inefficiencies that arise from the low student teacher ratios and unequal deployment of teachers highlighted in other studies (World Bank 2012c; World Bank 2013b). Given the importance of these areas of local governance to the efficient and effective use of public resources it is important that the policy and capacity building efforts focus on these areas so that these declines are reversed in the future.

While strengthening local governance is crucial for sustained progress in the education sector it is also important to recognize that central government transfers and education sector programs present a number of challenges to district level education governance. The intergovernmental transfer system introduces incentives for higher salary spending in the education sector which may distort the decision making process and result in mismatches between school needs and district allocations (World Bank 2013b). While local governments provide the bulk of funding for basic education, the central government still contributes significantly. Central government education programs largely bypass district level planning, budgeting and monitoring processes and have the potential to seriously undermine district efforts to improve education sector management and governance (Dwiyanto 2011). Efforts to clarify roles and responsibilities and an increased effort to incorporate central government programs into local planning processes are clearly needed.

It is perhaps too early to assess the contribution that the overall BEC program has had on the quality of local governance. As the report has shown, technical assistance was provided over the last four years but capacity building grants only started in 2010 and were only completed at the end of 2012. Clearly, the contribution of these activities to sector outcomes will only be realized in the years ahead. The program was also relatively small given the size of local education systems and the governance and management challenges faced. On the whole, district level officials involved in the program felt it had significant benefits for the education sector and despite its small size many felt that the program had put capacity building firmly on the agenda and provided a facility through which district funds could be allocated towards these efforts.

While it is not possible to assess the overall BEC program, the study shows that using sector specific capacity building activities to target key weaknesses in the quality of local governance is challenging for a number of reasons. The study showed that efforts to target capacity building grants and activities to the weakest areas of governance were not particularly successful and resulted in a mismatch between capacity development activities and the areas of local governance that were initially identified as priority areas.

Most of the recommendations and priority areas identified in the first round of the survey highlighted the need to strengthen district level systems (World Bank 2010). However, half of the capacity building grants were directed at supporting schools. It is likely that the focus on school level activities was driven in part by the limited mandate that a district education office has to tackle broader governance issues. For example, sectoral efforts to strengthen planning and budgeting procedures need government wide systems to work effectively if they are to lead to better outcomes. The difficulty in addressing these broader constraints with a sectoral program is reflected by the relatively small amount (10 percent) of the capacity building grants that were used for activities outside of the district education office. The findings of the study therefore suggest that a multi-sectoral approach to capacity building is needed if local government capacity to deliver education services is to be strengthened.

The report has shown that the level and type of support that local governments need to strengthen education governance varies considerably. These differences are partly driven by the characteristics of each individual district. For example, publicizing and disseminating information to the local population is much easier when there is a vibrant local media and there are a variety of communication channels available to do this. It is more difficult when there is no local media and communication is hampered by limited infrastructure and geographical obstacles. This shows that for some districts achieving key indicators of good governance requires much greater effort. It also implies that different levels of support to district capacity building are needed to raise government effectiveness in similar ways. In the BEC program, grants of similar size were provided to all participating districts but future programs should consider tailoring the level and type of support according to the particular characteristics of the district.

While the study was not designed to assess the effects of specific initiatives supported under the BEC program it is important to recognize initiatives that have started to strengthen local education management. For example, technical assistance provided under the BEC program has supported local government efforts to introduce meaningful formula-based funding for their school grant programs (World Bank 2012a). As a result, a small group of the participating districts have begun to allocate school grants that are able to account for differences

in school needs and also introduce school-level incentives for improved education quality. Early results are promising and show that small and remote schools are getting a greater share of the resources they need to address the disadvantages they face. These programs will not necessarily lead to significant improvements in the overall governance environment because the funding they allocate represents less than 10 percent of the overall education budget. However, they provide an initial starting point to more effective allocation decisions in the education sector with the potential to be used across the entire education budget in the future.

**Box 6.1 Lessons learned from the ILEG survey**

The Indonesian Local Education Governance Survey provides a comprehensive tool to measure the quality of local education governance. Given the important role local governments play in the delivery of basic education services it is crucial that the capacity and effectiveness of local governance is monitored on a periodic basis. The ILEG survey is ideally suited to assess local education capacity and monitor the success of policies and programs that target improvements in local governance. Some key lessons from implementing the survey in 2009 and 2012 for future efforts in this area include:

- **School level management and governance.** It is important in assessing local education governance to assess the quality of school based management. While the ILEG does have a school module a more representative component to the survey is required to adequately assess this important area of local governance.
- **Survey design.** Where surveys of this kind are used to assess program outcomes it is important that a valid control group is included. This has the potential to provide an assessment of the effects of the program that controls for other important factors that determine local education governance.
- **Composite indices and rankings.** While composite indices are important to summarize key dimensions of governance, they should be kept simple to ease interpretation. Ranking districts on the basis of composite scores and comparing these rankings over time can lead to a misinterpretation of district level results. Reversion to the mean effects in the second time period can mean that changes associated purely with measurement error can be assigned real significance. If surveys of this kind are to produce meaningful rankings over time it is necessary to take this into account in survey design.

Indonesia has made significant progress in improving the education system in recent times. Recent governments have also demonstrated a commitment to education that has been backed up by increases in investment not seen in many other countries. The challenge for the education sector is to translate this commitment and increased investment into better education outcomes. The report has shown that strengthening the capacity of local governments to deliver basic education services effectively needs to be at the heart of any strategy developed to address this challenge.

# Appendices

# Appendix 1: Indicators used to measure local education governance

| Variable name | Type | Indicator description | 2009 value | 2012 value |
|---|---|---|---|---|
| **Transparency and Accountability** | | | **0.43** | **0.52** |
| T&A 1 | Performance | Financial reports are publicized in the local mass media, on an official announcement board, or through a website | 0.28 | 0.29 |
| T&A 2 | Performance | Community is able to attend local parliament session discussing the accountability and BPK audit reports | 0.14 | 0.52 |
| T&A 3 | Performance | Education council is involved in the compilation of Renstra (strategic planning) | 0.68 | 0.7 |
| T&A 4 | Performance | Local legislation on transparency exists | 0.08 | 0.18 |
| T&A 5 | Performance | Local legislation on community participation in budget planning exists | 0.125 | 0.12 |
| T&A 6 | Performance | The public has access to budget sessions in the local parliament | 0.3 | 0.56 |
| T&A 7 | Performance | The accountability report discussion in the local parliament is open to the public | 0.14 | 0.3 |
| T&A 8 | Process | Community is involved in monitoring and evaluating education activities | 0.21 | 0.24 |
| T&A 9 | Regulation | Education unit is producing progress reports on planned activities and realization, including budget | 0.78 | 0.92 |
| T&A 10 | Process | There are mechanisms in place to ensure that educational stakeholders have the opportunity to participate and voice their opinions regarding the evaluation of the District Education Office, schools, and teachers | 0.86 | 0.82 |
| **Education Service Provision** | | | **0.63** | **0.78** |
| ESP 1 | Performance | Each SD/MI has at least 40 percent of teachers that have a minimum education qualification of S-1 or Diploma IV and holds a teaching certificate | 0.02 | 0.57 |
| ESP 2 | Performance | Each SMP has at least 40 percent of teachers that have a minimum education qualification of S-1 or Diploma IV and holds a teaching certificate in-line with the subject they teach | 0.9 | 0.96 |
| ESP 3 | Performance | At least 75 percent of all SD/MI school principals have a minimum education qualification of S-1/D-IV and a teaching certificate from an accredited institution | 0.07 | 0.57 |

| Variable name | Type | Indicator description | 2009 value | 2012 value |
|---|---|---|---|---|
| **Transparency and Accountability** | | | **0.43** | **0.52** |
| ESP 4 | Performance | At least 75 percent of all SMP/MTs school principals have a minimum education qualification of S-1/D-IV and a teaching certificate from an accredited institution | 0.64 | 0.79 |
| ESP 5 | Performance | At least 75 percent of all school supervisors have a minimum education qualification of S-1/D-IV and a teaching certificate from an accredited institution | 0.63 | 0.79 |
| ESP 6 | Performance | 95 percent of children in the 7-12 year age group attend school SD/MI | 0.45 | 0.64 |
| ESP 7 | Performance | The primary level dropout rate does not exceed 1 percent of students currently enrolled in school | 0.87 | 0.98 |
| ESP 8 | Performance | The junior secondary level dropout rate does not exceed 1 percent of students currently enrolled in school | 0.66 | 0.88 |
| ESP 9 | Performance | Average score of grade 6 (SD/MI) students in national examination (2009 for first ILEG and 2011 for second ILEG survey) | 0.68 | 0.59 |
| ESP 10 | Performance | Average score of year 9 (SMP/MTs) students in national examination (2009 for first ILEG and 2011 for second ILEG survey) | 0.07 | 0.07 |
| ESP 11 | Performance | combined primary and junior secondary net enrolment rate (2008 for the first ILEG and 2010 for the second ILEG survey) | 0.83 | 0.84 |
| ESP 12 | Performance | gender parity: primary and junior secondary (2008 for the first ILEG and 2010 for the second ILEG survey) | 0.93 | 0.94 |
| ESP 13 | Performance | adult literacy rate (2008 for the first ILEG and 2010 for the second ILEG survey) | 0.85 | 0.87 |
| **Management Control Systems** | | | **0.5** | **0.4** |
| MCS 1 | Process | Goods users carry out a yearly stock inventory | 0.49 | 0.56 |
| MCS 2 | Regulation | A technical guideline for procurement exists by district head | 0.34 | 0.32 |
| MCS 3 | Regulation | Does the district have an incentive-based performance management system in place for teachers based on the National Education Standards? | 0.15 | 0.2 |
| MCS 4 | Regulation | Does the district have an incentive-based performance management system in place for school supervisors based on the National Education Standards? | 0.11 | 0.07 |
| MCS 5 | Regulation | Does the district have an incentive-based performance management system in place for school principals based on the National Education Standards | 0.15 | 0.16 |
| MCS 6 | Process | The Annual district Education Forum (Forum diskusi SKPD Pendidikan) integrates inputs and recommendations from the Annual village level and municipal level planning consultative meeting results (Musyawarah Rencanan Pembangunan - MUSRENBANG) | 0.94 | 0.88 |

| Variable name | Type | Indicator description | 2009 value | 2012 value |
|---|---|---|---|---|
| **Transparency and Accountability** | | | **0.43** | **0.52** |
| MCS 7 | Process | The district education office considers consolidated school level inputs through the school development planning mechanism (Rencana Kegiatan Sekolah - RKS) in developing the district level Annual Education Workplan | 0.16 | 0.12 |
| MCS 8 | Process | School Committee's, District Education Boards and Community Based Organizations actively participate in strategic educational planning processes | 0.66 | 0.76 |
| MCS 9 | Regulation | The district Education Board (Dewan Pendidikan) has a regular program and budget to build the capacity of school committees and the education board | 0.8 | 0.8 |
| MCS 10 | Process | All procurement of goods and services carried out with a bidding process | 0.54 | 0.46 |
| MCS 11 | Regulation | A decree is in place on opening bank accounts for district cash | 0.3 | 0.72 |
| MCS 12 | Process | Stakeholders have a standard procedure to validate good practice | 0.24 | 0.1 |
| MCS 13 | Performance | Evidence of efforts by LG to identify good practice in improving educational service provision | 0.66 | 0.46 |
| MCS 14 | Performance | There is evidence of a place or method for stakeholders to document good practice | 0.47 | 0.26 |
| MCS 15 | Process | There is evidence of a systematic approach to document and catalogue Innovative good practice | 0.33 | 0.17 |
| MCS 16 | Regulation | The Education unit head has passed an organization Regulation on sectoral asset management in Education unit and All sub-units | 0.32 | 0.36 |
| MCS 17 | Regulation | Local legislation on asset management exists | 0.4 | 0.8 |
| **Management Information Systems** | | | **0.44** | **0.5** |
| MIS 1 | Regulation | There is evidence of an existing primary education database at the district level with basic indicators available for at least 95 percent of schools | 0.7 | 0.72 |
| MIS 2 | Regulation | There is evidence of written procedures and protocols for the scheduling and methodology of data collection, data cleaning, data submission from lower levels of the system (i.e. Schools) | 0.32 | 0.4 |
| MIS 3 | Process | There is evidence of data spot checking systems in place | 0.35 | 0.38 |
| MIS 4 | Process | There is evidence of the integration and use of Paket Aplikasi Sekolah - PAS, Jaringan Pendidikan Nasional - Jardiknas, and Pangkalan Data dan Informasi Pendidikan - PADATI within the existing management infrastructure of the education system at the local government level | 0.47 | 0.55 |

| Variable name | Type | Indicator description | 2009 value | 2012 value |
|---|---|---|---|---|
| **Efficient Resource Use** | | | **0.62** | **0.59** |
| ERU 1 | Process | Tariffs for the use of assets are adjusted periodically | 0.6 | 0.48 |
| ERU 2 | Regulation | Education council has been involved in drafting of Education strategic plan | 0.68 | 0.7 |
| ERU 3 | Regulation | Annual budget policy includes measurable outcome indicators | 0.72 | 0.92 |
| ERU 4 | Regulation | Budget priorities and ceilings are set before the budgeting process in SKPD starts | 0.44 | 0.74 |
| ERU 5 | Regulation | Education planning and budget calendar has been drafted | 0.5 | 0.34 |
| ERU 6 | Regulation | Education (sectoral) medium term and annual plans include indicative budget ceilings and take budget limit into account | 0.76 | 0.88 |
| ERU 7 | Regulation | A poverty alleviation program in the education sector exists | 0.62 | 0.7 |
| ERU 8 | Process | Planning and budgeting documents can easily be accessed by the community | 0.39 | 0.43 |
| ERU 9 | Regulation | Education unit is producing progress reports on planned activities and realization, including budget | 0.78 | 0.92 |
| ERU 10 | Regulation | Programs and activities in RPJMD can be measured quantitatively | 0.57 | 0.98 |
| ERU11 | Performance | The difference between planned and realized expenditures was less than 10 percent in the last (3) financial years | 0.46 | 0.32 |
| ERU 12 | Performance | Education budget absorption rate in last quarter of 2011 (2008) is 90 percent or more | 0.94 | 0.91 |

# Appendix 2: Qualitative Case studies

## Background

The case study approach provides a qualitative depth to enrich the interpretation and analysis of survey findings by integrating local context (socio-cultural, political-economy) and perspectives of local education stakeholders.

## Methodology

Two district-pairs, Bangkalan & Sampang in East Java Province and Kaimana & Sorong Selatan in West Papua Province were selected to enrich the identification of factors contributing to change in governance from 2009 to 2012. Each pair is under the same provincial governance, has the same level of selected education outcomes (Net Enrolment Rates and National Examination Scores in Basic Education), has the same level of LGCA baseline scores, but has performed differently on 2011 KPI achievement. KPI achievement was taken as a proxy toward progress in governance.

Parallel to the implementation of the quantitative survey, the team[1] visited all four districts for a period of three to four days and conducted in-depth interviews with the District Office Head or official representative and individuals in similar roles as those surveyed for the education governance quantitative survey[2]. Focus questions related to Education Outcomes, Governance in the five strategic areas and the opinions held and lessons learned from participating in the BEC Project. Summary findings from each field work visit were presented and discussed with key officials at the District Education Office.

Analysis included the identification of common themes/patterns from field visits, publicly available information on relevant webpages, in reports and the media and, took into account considerations from the initial findings of the quantitative survey.

## Key Findings

### 1. Sorong Selatan District

Facing the challenges of a newly established district Sorong Selatan's Bupati provided a clear vision. The district was established in 2004 under Law 26/2002 with an initial focus on infrastructure development followed by a strong investment in its human resources from 2009 onwards. The Bupati also made a strategic decision to recruit a highly credible leader for the District's Finance Office. The Head of the DEO worked in close collaboration with the Head of the DFO to champion training for skills development in education asset inventory preparation and maintenance. This district-wide approach has seen an improvement in BPK audit results – from Disclaimer findings in 2008 and 2009 to Qualified findings in 2010 and 2011.

1 Steisianasari Mileiva, Siti Fahradita, Erimson Siregar and Yohanes Triyuwono conducted the fieldwork. Itha Heykal gave the most helpful administrative and logistical support. Husnul Rizal provided some quantitative data. Samer Al-Samarrai, Jessica Ludwig and Yvonne Trethewey provided overall guidance and oversight. Surveymeter team was helpful and collaborative during the planning and the actual fieldwork. Steisianasari Mileiva produced this final report, with input from Yvonne Trethewey.

2 DPIU teams in District Education Offices, school principals, teachers, school committee members of sampled schools, relevant officials in District Finance and District Planning Office (Bappeda); the Education Commission of the Local Parliament and key officials in the Provincial Education Office.

Given the high priority placed on increasing teacher professional development in this geographically isolated district which serves communities divided by sea and mountain terrain, the DEO allocated significant funds to enable teacher training and upgrading. As part of a focus on developing its human capital, the district invested heavily in teacher training and development with outstanding results. A first place in the 2011 West Papua Biology Olympics; second and third places in the ASEAN Mathematics Olympics; third place in World Mathematics Team Competitions and, in 2012 a second place in the West Papua Science Olympics! These results are attributed to the strategic decision to allocate local budget o partner with the Surya Institute[3] to train both teachers and, students. Using IDR 780 million in L-BEC funds (approximately 73 percent of L-BEC grant funds) and IDR 1.1 billion from the Special Autonomy Fund (Dana Otsus) the results speak for themselves. They clearly demonstrate that when provided with the appropriate teaching-learning methods all children, even those from the most remote and disadvantaged areas can excel.

Efficient resource use in an isolated location without ready access to electricity and mobile connectivity continues to be a major challenge. The over 600 teachers in Sorong Selatan must travel to the DEO to collect their salaries once every three months. Given this involves between 4 - 6 hours travel over poor roads or by boat (39 percent of teachers are in coastal areas), in sometimes rough conditions and that this must occur during office hours it is indeed a costly exercise in terms of human and financial resources – as well as reduced time spent in the classroom. A plan to build sub-district education offices (UPTD Pendidikan) in 2013 is in place amongst other initiatives aimed at reducing the travel time for routine salary pick up.

L-BEC capacity development plans were shaped to meet local needs with Sorong Selatan one of the first BEC districts to complete planned activities and disburse BEC funds in 2012. This was partly because the cost of conducting activities was up to 50 percent higher than costs in Java so disbursement occurred faster (and the L-BEC grant did not stretch as far). To compensate for this and to acknowledge Sorong Selatan's achievements in Education Service Provision and commitment to sustaining locally relevant BEC education governance and management activities, additional grant funds were allocated. Activities included teacher professional development for a wider coverage of schools and to enable the district to visit education policy makers in Jembrana (Bali) and Bojonegoro (East Java) to observe and learn from peers in other districts about the pressing need to develop its Education Perda (local regulation on education) and supporting policy.

## 2. Kaimana District

Kaimana is a new district established under Law 26/2002, as was Sorong Selatan but as the saying goes in Indonesia they are 'serupa tapi tak sama' – similar but different. Although both districts are in West Papua Province they face quite different development challenges. For example, in contrast to the 4- 6 hours of bumpy roads to reach the DEO in Sorong Selatan from Sorong's airport, Kaimana's smoothly tarmacked roads and stunning beach views make the 20-minute journey to the DEO very pleasant.

3 The Surya Institute specializes in the development and dissemination of innovative learning and teaching materials and techniques in Science and Mathematics education. In 2009 it started working in West Papua to train subject teachers and coach students to improve teaching and learning using a technique called GASING (GAmpang ASyik menyenaNGkan) to make learning easy, fun and enjoyable.

With its vast and scenic 'boomerang' shaped coastline, Kaimana borders the sea and is noted for its stunning sunsets which make it a tourist destination. As with Sorong Selatan it faces the challenges of supporting large numbers of small schools with limited access to transportation scattered across an area of approximately 18,500 km -- four times that of Sorong Selatan. The absence of sub-district education offices (UPTD Pendidikan) means that school supervisors have to travel between 4 – 6 hours by rented boat (costing IDR 8-10 million) to visit schools at the end of the coastline.

To address the disparity between the higher costs of school operations in these peripheral locations compared with those in the district capital, the local government issued a *Bupati* Regulation (Head of District Regulation) in 2010 to make available local government grants (BOSDA) based on a formula which considers access and performance. "Formula-based BOSDA[4]" has resulted in a shift in the way district funding is allocated for larger town schools and for smaller and more remote schools. Technical assistance has been provided under the L-BEC grant for focus group discussion and awareness- raising about how to determine the amount of the grant using a formula which takes into account local needs. Kaimana is committed to continue using its locally developed formula, refine its use and establish a mechanism for monitoring and evaluating its implementation and impact.

Slowly but surely the district is seeing progress in transparency, accountability and community participation, however efforts to make public documents accessible to the community remains a challenge which further limits the opportunity to empower school committees. There are no local newspapers, only intermittent internet access (even in the district capital) and, only limited access to remote locations. Kaimana used some of its L-BEC grant allocation to produce and disseminate its Education Public Expenditure Analysis (EPEA) report. DEO officials reflected that this report has been beneficial in evaluating financing policy and the quality of basic education delivery. More importantly, one of its key recommendations was implemented — a Coordination Meeting *(Rakornis)* with all school principals in the district. In late 2012 this meeting provided the opportunity to learn about the challenges impacting on day-to-day management at Kaimana's schools and to discuss strategies to address issues identified and achieve future goals.

It is clear that the district is focused on improved learning outcomes and education service provision by significantly increasing teacher training and development opportunities. In 2011 teachers, principals, supervisors and parents from schools in the district capital advocated and showcased efforts to provide stronger oversight of the national examination to ensure the quality of Kaimana's graduates. In 2011/12 although there was a decrease in Junior Secondary national examination scores, particularly in the district capital[5], the schools believe that this approach will ensure the quality of Kaimana's future graduates. As well, since 2009 approximately 194 Senior Secondary School graduates were selected as trainee teachers at teacher training institutes in Java and Papua. A further 150 non-S1 teachers are currently participating in a teacher upgrading program conducted by Teacher Training Lecturers flying in from Bandung. Future plans include teacher training in Mathematics, Physics and Biology for which a budget allocation has already been made.

4 BOSDA (Bantuan Operasional Sekolah Daerah) provides a district grant for school operations from the local government budget to supplement the national school grant Bantuan Operasional Sekolah (BOS). "Formula-based BOSDA" is an approach which enables districts to cost actual school operations, take into account higher per-student operating costs in remote and small schools and make resource allocations based on education financing equality.

5 Kaimana Education Public Expenditure Analysis (EPEA), p.25-28, year 2012

## 3. Bangkalan District

The opening of the bridge in June 2009 connected Madura Island to the East Java mainland and, to Surabaya, the second largest city in Indonesia. Bangkalan has sought to maximize the opportunities provided by being one of the closest districts to the bridge, prioritizing human resource development aimed at servicing forecasted growth opportunities. *"Before the Suramadu[6] Bridge it took us up to three hours [by ferry] to get to a meeting with the Provincial Education Office – now it takes an hour"* (Head of the District Education Office, Bangkalan).

The bridge has increased the mobility of the people in Bangkalan, now having faster access in and around Surabaya and increased opportunity to be engaged in the trade of goods and services. There have been improvements in the poverty rate, dropping from 32.7 percent in 2008 to 28 percent in 2010. However one junior secondary school reported drops in student enrolment due to access to a wider selection of schools in East Java -- richer families with the money or time available for the additional travel have transferred their children to those schools.

The district is well aware that road and bridge access is not enough; the district also needs to be connected to the Internet and have the human, physical and financial resources to use it to its maximum advantage. In the 2013 budget, the district allocated IDR 900 million to upgrade and improve its website[7] so that it provides access to up-to-date information and serve as a reliable hub for all working units in the district, including the district education office. A small percentage of the over 1000 schools and madrasahs have also been developing websites to increase reporting and information provision.

Since 2010, the education budget has exceeded 40 percent allocation out of the total district budget. Nevertheless, the trend in spending has been largely toward physical infrastructure development which is not uncommon in many districts. The District Secretary who sits on the Annual Budget Review Committee believes that there is a need to increase understanding about the importance of capacity building in the achievement of quality outcomes. The capacity development planning process for L-BEC grant disbursement is seen as one of the mechanisms which have raised awareness about the significant impact of education focused capacity development.

A focus on excellence in education delivery in is evidenced in the strong collaboration between the District Education Office and the Religious Office for cross school and madrasah supervision. As well, up to 90 percent of the teaching force is certified with teachers upgrading their education qualifications by enrolling in teacher colleges – at their own expense in some cases or through scholarship support from the district education office. Bangkalan is also the home of the only public university in Madura Island, Universitas Trunojoyo Madura (UTM). In 2001, at the conversion ceremony from a private to a public university, past President Abdurrahman Wahid commented *"… this is what the people have been waiting for, a public university in Madura Island…."*

6 Suramadu stands for **Sura**baya – **Madu**ra. It and crosses the Madura Strait. It is the longest bridge in Indonesia (5.4 km).
7 www.bangkalankab.go.id

In a visit to the District Finance Office a range of framed news articles attest to Bangkalan's outstanding performance in financial reporting. These articles speak for themselves and in 2012 several district governments visited the district to learn about the district's impressive achievement in getting the highest rating -- Unqualified/Wajar Tanpa Catatan -- for the 2010 and 2011 financial report audits from the Supreme Audit Board (Badan Pemeriksa Keuangan, BPK). These achievements are still attributed to one man, often referred to as a 'Legend' who was the Head of the Finance Department for 22 years from 1970-1992. He established a high bar for meticulous and disciplined reporting which has been maintained by his successors – one of whom is now District Secretary and the other Head, District Education Office. This attention to detail is also reflected in Bangkalan's ongoing achievement of BEC budgeting and asset management performance indicators. L-BEC grant activities have been implemented according to plan with grant funds disbursed smoothly and on time. Additional grant funds were awarded in September 2012 and activities include training schools on the formulation of comprehensive financial reporting and curriculum development.

## 4. Sampang District

Sampang and Bangkalan are another two districts who on the surface may appear to be the same but the Indonesian saying 'serupa tapi tak sama' applies. Both are located in East Java Province on Madura Island which has been targeted for development by President Susilo Bambang Yudhonoyo. Since 2005 their education offices have been working with development partners through the Decentralized Basic Education (DBE) program (2005-2011), the Basic Education Capacity (BEC) program (2009-2012) and PRIORITAS[8] program (2012-2017). Yet, each has its own particular set of challenges specific to local context.

Although the two districts border each other, as one drives toward Sampang from Bangkalan the soil becomes more arid. The poverty rate of 32.5 percent in 2010 is higher although there has been a degree of improvement over the years. In 2010, Human Development Index (HDI) measurement placed Sampang district as the lowest out of 37 districts in East Java Province. Since then, the district government has been making a concentrated effort to increase the score. For example, the District Education Office has sped up the construction and rehabilitation of school classrooms and the library through financing under Special Allocation Funds (Dana Alokasi Khusus, DAK) funds. Accompanied with supporting teacher upgrading through courses at the Open University, it is expected that enrollment rates will be increased along with improved learning outcomes.

In Sampang there are more than 1800 education institutions ranging from early childhood to senior secondary schools and madrasahs with variety in the quality of their education delivery. Around half of the basic education schools in Sampang are Madrasahs, under centralized Ministry of Religious Affairs' management and under the local jurisdiction of the Religious Office. The size of Sampang's Religious Office is small with only 6 officials responsible for hundreds of Madrasahs indicating a clear need to explore further capacity building opportunities for these officials.

8 PRIORITAS stands for Prioritizing Reform, Innovation and Opportunities for Reaching Indonesia's Teachers, Administrators and Students.

The demand-driven approach to capacity development planning and education management and governance improvement included Madrasah participants – sustaining and complementing good practices initiated during the USAID Decentralized Basic Education Project. Less than 10 minutes' drive from the Education Council and District Education Office is the most popular junior secondary school in Sampang. Entering the school gate, one is welcomed by the BOS poster and next to that is the school budget report. Annually the school manages a BOS budget of a half billion rupiah. There is also apparent strong collaboration between the school and its school committee in school planning and implementation of activities.

Unlike Sorong Selatan and Kaimana, both Bangkalan and Sampang have access to local newspapers and information about the district budget (in the form of a one-page summary), local news from their own districts, neighboring districts and East Java Province in general. Often, there is a dedicated education section or column which reports on education related activities such as the Minister of Education's visit to Sampang in November 2012 to officially launch the development of Madura Polytechnic (Politeknik Negeri Madura, Poltera)[9]. This is Madura Island's first Polytechnic and Sampang district has provided scholarships for upgrading 14 teachers to Master (S2) and Doctorate (S3) levels to prepare them as technical and vocational lecturers in Ship Construction, Industrial Electricity and Heavy Machinery once Poltera opens its door in 2014.

## Key Messages: revisiting what we learned

1. **Districts which are newly established require additional resourcing and technical assistance which must be factored in during project design.**

   L-BEC district grant funds to support capacity development activities were the same for all participating districts. Socio-economic and geographic constraints although included as part of the selection criteria to participate in the project but did not influence the amount of funding allocated to support targeted activities. As a result the scope, focus and number of activities varied significantly across all districts.

   Performance differences are apparent, managing project implementation in West Papua is very different from that in East Java. Future design needs to accommodate the challenges faced by geographically isolated locations

   In the newly created districts of Sorong Selatan and Kaimana priorities were on infrastructure development and compliance as the first step towards transparency and accountability whilst more established districts incorporated activities such as empowering school committees, district-wide publication of budget documents and the like. Both districts have prepared a first draft of the local regulation on Education (Perda) for discussion but are yet to establish an Education Council. Additional technical assistance designed to accommodate the needs of newly established districts could facilitate the establishment of needed education regulations.

9 Polytechnic is one type of Higher Education institutions in Indonesia. It is less than the four-year bachelor degree and its strength is on the vocational mastery of the graduates to meet specific skill demand in the labor market.

2. **Performance indicators related to information transparency should allow for differences in local context of situation.**
   Transparency and accountability in education service delivery is central to effective management and governance. The provision of education related information to the public is central to encouraging the participation of the community in education affairs. There is no local newspaper in Kaimana and Sorong Selatan so the only way districts can provide information about education and expenditure to the public is on district announcement boards (inaccessible for people living in hard-to-reach sub-districts/villages) or on the radio (sometimes not accessible where signal coverage is limited). In the neighboring, established district of Sorong there is an arrangement with the local newspaper, Radar Sorong, for a dedicated 'third page' for the publication of smaller, adjoining district government updates and information. However in Sorong Selatan, a significant number of the population cannot afford[10] to buy the paper on a subscription basis and often the news is over a day old by the time it gets to the district.

3. **Education service delivery improvements are influenced by multiple and at times overlapping activities conducted through national, regional, community and private initiatives which may be strongly supported by targeted capacity development projects funded by development partners.**
   Government of Indonesia's widespread reforms in education have influenced teacher reform, school based management and public participation in education. District government officials advised that a key benefit from participating in the BEC Project has been access to funding and technical support for capacity building activities. In addition, various tools to support school based management have supported data and information collection, for example the Tool for Reporting and Information Management by Schools (TRIMS) which facilitates school self-evaluation and the Formula-based approach to determining equitable, performance based district government BOS allocations. The four districts advised that limited budget to conduct training, workshop and seminars for teachers, principals, education personnel, supervisors, school committee and district's officials is the norm and that availability of BEC grants were instrumental in providing resources to address this gap.

   The BEC approach to capacity development has served as a catalyst for districts to focus on local needs. For example, Sorong Selatan allocated Special Autonomy and L-BEC grant funds to engage the Surya Institute, a private foundation noted for its excellence in Mathematics and Science teaching methodology, to work with teachers and students from schools in in the most eastern parts of Indonesia. Pride in education achievement is obvious: in the past few years some of their students have won Provincial and World level Mathematics and Science Olympiads. These results have also served to increase teacher and staff motivation to achieve and encouraged teachers to share expertise.

10 Poverty rates are higher than the national average, enrollment rates at junior secondary level are lower than national average (Susenas, 2009-2010).

Parallel to involvement in the BEC project, Sampang and Bangkalan districts also worked with the USAID Decentralized Basic Education project from 2005 - 2011 and will continue working with USAID's PRIORITAS project until 2017. Overlapping activities relating to basic education service delivery improvements were coordinated to achieve the maximum outcomes. In Bangkalan, for example, District Education Office hired the same consultant for DBE and BEC during the development and implementation of the District's Comprehensive Development Plan and they have incorporated BEC capacity development activities into future work supported by PRIORITAS.

4. **Performance-based incentives for supervisors, principals and teachers as a mechanism for improved learning outcomes – considerations for the future.**
   Considerations for the future should include ways to establish performance based incentives as mechanisms to support professional advancement, development and excellence. None of the case study districts were aware of any incentives that may be available for their staff and saw that rewards were usually in the form of promotion (teacher to principal; principal to supervisor) or formalized through civil service teacher certification regulation both with increased pay and responsibility being perceived as the necessary incentive. However this did not take into account the importance of ways to provide professional development and education practitioner networking/communities of practice which incentivize the teaching profession to continue to strive for excellence in student learning outcomes in Indonesia..

# Appendix 3: BEC key performance indicators

| BEC Key Performance Indicators (KPIs) |
|---|
| **1. Government of Indonesia education policy reviewed through policy analysis and studies used to inform education policy.**<br>*Performance measure:* Number of education policy analysis and studies undertaken |
| **2. Education budget [information] available at local level.**<br>*Performance measures:*<br>a) District provides education budget information through local mass media, or official announcement board, or on a website.<br>b) District with at least 60 percent of schools providing BOS education budget information through school announcement board. |
| **3. Budget & expenditures are well defined, cost-based, linked to performance indicators.**<br>*Performance measure:* District whose education unit has a unit budget document with measurable outcome related to its strategy. |
| **4. Education budget execution rates at local levels.**<br>*Performance measure:* District with a difference between planned and realized programs (disbursement rates) of less than 10 percent in the last 3 fiscal years. (Note: to count the district all 3 years must have less than 10 percent unspent monies.) |
| **5. Effective internal information, audit and control systems in place.**<br>*Performance measures:*<br>a) District where all of the awards for education bids are published in the local newspapers, on official boards or on a website.<br>b) District where fixed assets are inventoried on an annual basis.<br>c) District where internal audit results are filed, and action taken to follow up as per recommendation. |
| **6. Community-based accountability reviews take place.**<br>*Performance measure:* District where the Bupati/Walikota's accountability report (including Dinas Pendidikan) is made available to the public. |
| **7. Accurate, reliable, appropriate and timely information available for planning, budgeting and performance assessment.**<br>*Performance measures:*<br>a) District where student achievement (i.e. average national exam score, graduation rates, dropout rate, survival to grade 5 rates) are published annually, and easily accessed through local mass media, or official announcement boards or on a website.<br>b) District where enrollment by gender is published annually, and easily accessed through local mass media, or official announcement boards or on a website. |

# Appendix 4: Chapter 5 regression results

**Table 1 Main regression results reported in the text**

| | Final outcomes | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | NER | UN score | NER | UN score | NER | UN score | NER | UN score |
| Education spending as % of total government spending | 0.158* (0.0810) | 0.156** (0.0715) | | | | | | |
| Local government education spending per primary and secondary aged child | | | 0.017** (0.008) | 0.011*** (0.003) | | | | |
| % of primary and junior secondary school teachers with at least an S1 degree | | | | | 0.024 (0.073) | 0.165*** (0.050) | | |
| % of basic education teachers to redistribute | | | | | | | 0.063 (0.242) | 0.212 (0.179) |
| Poverty rate | -0.004** (0.002) | -0.0002 (0.001) | -0.004** (0.001) | 0.0001 (0.001) | -0.004** (0.002) | 0.000324 (0.001) | -0.004** (0.002) | -0.0001 (0.001) |
| New district (years after decentralization) | -0.0210 (0.021) | -0.000804 (0.009) | -0.0254 (0.019) | -0.00687 (0.008) | -0.0273 (0.024) | 0.000660 (0.009) | -0.0271 (0.022) | -0.003 (0.011) |
| Total local government budget per capita | 0.003 (0.006) | -0.005** (0.002) | -0.006 (0.005) | -0.012*** (0.003) | 0.001 (0.006) | -0.006*** (0.002) | 0.0005 (0.006) | -0.0085*** (0.003) |
| School committee participation in decisions | 0.122* (0.0625) | 0.0272 (0.0205) | 0.126** (0.0622) | 0.039* (0.0207) | 0.128* (0.0639) | 0.037* (0.0194) | 0.128* (0.0642) | 0.035* (0.0198) |
| Constant | -0.004** (0.002) | -0.0002 (0.001) | 0.779*** (0.061) | 0.589*** (0.032) | 0.812*** (0.057) | 0.540*** (0.033) | 0.775*** (0.194) | 0.461*** (0.136) |
| Observations | 50 | 50 | 47 | 47 | 50 | 50 | 50 | 50 |
| R-squared | 0.609 | 0.537 | 0.640 | 0.560 | 0.590 | 0.583 | 0.590 | 0.506 |

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

**Table 1 Main regression results reported in the text (continued)**

| | Intermediate Outcomes | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Education spending as % of total government spending | | Local government education spending per primary and secondary aged child | | % of primary and junior secondary school teachers with at least an S1 degree | | % of basic education teachers to redistribute | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Quality of local governance index | 0.384*** (0.115) | | -1.008 (1.851) | | 0.450*** (0.144) | | 0.123** (0.0524) | |
| Transparency and accountability sub-index | | 0.241 (0.144) | | 0.0652 (2.213) | | 0.315** (0.155) | | 0.0823 (0.0680) |
| Efficient resource use sub-index | | 0.128 (0.120) | | -0.936 (2.343) | | -0.127 (0.143) | | -0.0678 (0.0548) |
| Management control systems sub-index | | 0.123* (0.0653) | | -0.111 (1.347) | | 0.0703 (0.0973) | | 0.0778** (0.0332) |
| Management information systems sub-index | | -0.0156 (0.0621) | | -0.262 (1.303) | | 0.126 (0.0870) | | 0.0152 (0.0242) |
| Poverty rate | -9.99e-05 (0.00147) | -0.000448 (0.00125) | -0.0421* (0.0230) | -0.0431* (0.0224) | -0.00280 (0.00171) | -0.00319* (0.00164) | -0.000764 (0.000751) | -0.00103* (0.000550) |
| New district (years after decentralization) | -0.0382* (0.0203) | -0.0455** (0.0188) | -0.248 (0.422) | -0.251 (0.469) | -0.0427** (0.0181) | -0.0452** (0.0222) | -0.0210* (0.0121) | -0.0221** (0.0107) |
| Total local government budget per capita | -0.0172*** (0.00596) | -0.0140** (0.00535) | 0.404*** (0.113) | 0.411*** (0.125) | -0.0107* (0.00595) | -0.00898 (0.00569) | 0.00261 (0.00275) | 0.00411* (0.00228) |
| School committee participation in decisions | 0.0247 (0.0376) | 0.0140 (0.0382) | 0.114 (0.677) | 0.207 (0.787) | -0.0386 (0.0455) | -0.0223 (0.0417) | -0.0131 (0.0167) | -0.00327 (0.0167) |
| Constant | 0.217*** (0.0751) | 0.179** (0.0678) | 3.379*** (1.108) | 3.501*** (1.170) | 0.282*** (0.102) | 0.334*** (0.110) | 0.718*** (0.0409) | 0.733*** (0.0335) |
| Observations | 50 | 50 | 47 | 47 | 50 | 50 | 50 | 50 |
| R-squared | 0.673 | 0.700 | 0.446 | 0.448 | 0.518 | 0.562 | 0.251 | 0.378 |

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

**Table 1 Main regression results reported in the text (continued)**

| | Final Outcomes | | | |
|---|---|---|---|---|
| | Primary and junior secondary net enrolment rate | | Primary and junior secondary national examination (UN) score | |
| | (1) | (2) | (3) | (4) |
| Quality of local governance index | 0.0843<br>(0.0768) | | 0.136**<br>(0.0602) | |
| Transparency and accountability sub-index | | 0.0849<br>(0.0771) | | 0.0838<br>(0.0560) |
| Efficient resource use sub-index | | -0.0467<br>(0.0827) | | 0.00769<br>(0.0544) |
| Management control systems sub-index | | -0.00386<br>(0.0390) | | -0.00413<br>(0.0311) |
| Management information systems sub-index | | 0.0289<br>(0.0484) | | 0.0403<br>(0.0322) |
| Poverty rate | -0.00391**<br>(0.00166) | -0.00400**<br>(0.00171) | 1.44e-05<br>(0.000625) | 5.56e-06<br>(0.000736) |
| New district (years after decentralization) | -0.0264<br>(0.0224) | -0.0272<br>(0.0216) | -0.00478<br>(0.00871) | -0.00549<br>(0.00940) |
| Total local government budget per capita | 0.000762<br>(0.00578) | 0.00111<br>(0.00560) | -0.00754***<br>(0.00209) | -0.00756***<br>(0.00221) |
| School committee participation in decisions | 0.126*<br>(0.0650) | 0.130*<br>(0.0723) | 0.0292<br>(0.0199) | 0.0288<br>(0.0214) |
| Constant | 0.779***<br>(0.0606) | 0.794***<br>(0.0682) | 0.552***<br>(0.0380) | 0.559***<br>(0.0482) |
| Observations | 50 | 50 | 50 | 50 |
| R-squared | 0.596 | 0.605 | 0.531 | 0.549 |

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

**Table 2 Descriptive statistics**

| VARIABLES | unit | mean (sd) |
|---|---|---|
| Primary and junior secondary net enrolment rate | percentage | 0.828 (0.0907) |
| Primary and junior secondary national examination (UN) score | percentage | 0.621 (0.0537) |
| Education spending as % of total government spending | percentage | 0.361 (0.126) |
| Local government education spending per primary and secondary aged child | rp. millions | 3.105 (1.700) |
| % of primary and junior secondary school teachers with at least an S1 degree | percentage | 0.363 (0.137) |
| % of basic education teachers to redistribute | percentage | 0.750 (0.0423) |
| Quality of local governance index | percentage | 0.498 (0.0955) |
| Transparency and accountability sub-index | percentage | 0.476 (0.118) |
| Efficient resource use sub-index | percentage | 0.601 (0.120) |
| Management control systems sub-index | percentage | 0.445 (0.168) |
| Management information systems sub-index | percentage | 0.468 (0.185) |
| Poverty rate | percentage points | 22.56 (10.03) |
| New district (years after decentralization) | years | 0.400 (0.833) |
| Total local government budget per capita | rp. millions | 2.885 (3.313) |
| School committee participation in decisions | dummy variable | 0.830 (0.296) |
| **Observations** | | **50** |

*Note:* The sample size for the regression with local government education spending per primary and secondary aged pupil is 47. Summary statistics are not reported for this regression as they are not significantly different from those reported in Appendix 4 Table 2.

**Table 3 Correlation coefficients between selected variables**

| | Education spending as % of total government spending | Local government education spending per primary and secondary aged child | % of primary and junior secondary school teachers with at least an S1 degree | % of basic education teachers to redistribute | Primary and junior secondary net enrolment rate | Primary and junior secondary national examination (UN) score | Quality of local governance index | Transparency and accountability sub-index | Efficient resource use sub-index | Management control systems sub-index | Management information systems sub-index | Poverty rate | New district (years after decentralization) | Total local government budget per capita | School committee participation in decisions |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Education spending as % of total government spending | 1 | | | | | | | | | | | | | | |
| Local government education spending per primary and secondary aged child | -0.2691* | 1 | | | | | | | | | | | | | |
| % of primary and junior secondary school teachers with at least an S1 degree | 0.7195* | -0.2209 | 1 | | | | | | | | | | | | |
| % of basic education teachers to redistribute | 0.4449* | 0.017 | 0.5117* | 1 | | | | | | | | | | | |
| Primary and junior secondary net enrolment rate | 0.5522* | -0.0769 | 0.4247* | 0.2057 | 1 | | | | | | | | | | |
| Primary and junior secondary national examination (UN) score | 0.6712* | -0.2165 | 0.6447* | 0.2810* | 0.6127* | 1 | | | | | | | | | |
| Quality of local governance index | 0.5412* | -0.2207 | 0.5332* | 0.3687* | 0.3853* | 0.4639* | 1 | | | | | | | | |
| Transparency and accountability sub-index | 0.5122* | -0.2284 | 0.4940* | 0.2865* | 0.3585* | 0.4656* | 0.7155* | 1 | | | | | | | |
| Efficient resource use sub-index | 0.3146* | -0.1431 | 0.1633 | -0.0722 | 0.2729* | 0.2908* | 0.5559* | 0.3535* | 1 | | | | | | |
| Management control systems sub-index | 0.4076* | -0.2141 | 0.3483* | 0.4346* | 0.1855 | 0.2265 | 0.5469* | 0.2637* | -0.0754 | 1 | | | | | |
| Management information systems sub-index | 0.215 | -0.0246 | 0.3624* | 0.2298 | 0.2205 | 0.2653* | 0.7495* | 0.3682* | 0.3413* | 0.1004 | 1 | | | | |
| Poverty rate | -0.3338* | 0.1042 | -0.4201* | -0.1888 | -0.5723* | -0.3266* | -0.3266* | -0.2407* | -0.2760* | -0.1426 | -0.2118 | 1 | | | |
| New district (years after decentralization) | -0.6253* | 0.3562* | -0.5090* | -0.3673* | -0.3731* | -0.4620* | -0.3022* | -0.1908 | -0.1123 | -0.2513* | -0.2008 | 0.0736 | 1 | | |
| Total local government budget per capita | -0.7373* | 0.6321* | -0.5779* | -0.1775 | -0.5356* | -0.6710* | -0.3527* | -0.3640* | -0.2158 | -0.3047* | -0.0783 | 0.4376* | 0.6026* | 1 | |
| School committee participation in decisions | 0.3949* | -0.2964* | 0.2194 | 0.0073 | 0.5803* | 0.4528* | 0.2231 | 0.2602* | 0.3152* | 0.0929 | 0.0049 | -0.2557* | -0.2149 | -0.4780* | 1 |

*Note:* * - correlation coefficient is statistically significant at the 10 percent level at least.

# Appendix 5: Indonesian Local Education Governance Index district scores

| District/Municipality | Transparency and Accountability | Education Service Provision Standards | Management Control Systems | Management Information Systems | Efficient Resource Use | ILEG index |
|---|---|---|---|---|---|---|
| Bondowoso | 62.1 | 84.5 | 72.9 | 69.4 | 72.6 | 72.3 |
| Kebumen | 71.7 | 78.7 | 52.4 | 68.1 | 72.3 | 68.6 |
| Sleman | 57.2 | 77.7 | 28.7 | 80.6 | 87.1 | 66.2 |
| Pacitan | 58.0 | 82.1 | 76.3 | 44.4 | 65.3 | 65.2 |
| Sampang | 51.2 | 63.7 | 55.4 | 77.8 | 72.9 | 64.2 |
| Trenggalek | 54.8 | 85.5 | 56.9 | 68.1 | 54.2 | 63.9 |
| Bojonegoro | 55.1 | 81.2 | 49.1 | 73.6 | 59.2 | 63.6 |
| Probolinggo (Kota) | 52.6 | 82.3 | 49.8 | 61.1 | 64.8 | 62.1 |
| Polewali Mandar | 59.9 | 68.6 | 52.6 | 65.3 | 61.6 | 61.6 |
| Aceh Utara | 47.5 | 76.9 | 54.7 | 69.4 | 58.0 | 61.3 |
| Wonogiri | 58.8 | 82.0 | 22.4 | 59.7 | 83.2 | 61.2 |
| Purworejo | 42.0 | 74.5 | 70.5 | 59.7 | 58.9 | 61.1 |
| Wonosobo | 53.6 | 64.4 | 73.0 | 52.8 | 61.3 | 61.0 |
| Sragen | 49.6 | 79.6 | 46.5 | 65.3 | 63.3 | 60.9 |
| Bangkalan | 51.8 | 80.8 | 49.3 | 50.0 | 64.6 | 59.3 |
| Demak | 71.1 | 76.7 | 28.1 | 58.3 | 60.6 | 59.0 |
| Jayapura | 46.8 | 77.4 | 48.3 | 61.4 | 58.9 | 58.6 |
| Brebes | 48.5 | 75.7 | 55.0 | 33.3 | 80.1 | 58.5 |
| Blora | 51.8 | 70.7 | 31.2 | 56.9 | 78.4 | 57.8 |
| Banjarnegara | 47.6 | 66.5 | 61.7 | 54.2 | 56.8 | 57.4 |
| Probolinggo | 53.3 | 79.7 | 62.6 | 36.1 | 51.8 | 56.7 |
| Aceh Besar | 46.6 | 69.2 | 70.9 | 47.2 | 46.3 | 56.0 |
| Nganjuk | 47.6 | 81.5 | 48.7 | 45.8 | 55.2 | 55.8 |
| Ternate | 51.3 | 72.0 | 38.6 | 58.3 | 58.1 | 55.7 |
| Rembang | 53.0 | 89.5 | 21.7 | 45.8 | 64.2 | 54.8 |
| Lhokseumawe | 56.1 | 78.7 | 45.2 | 40.3 | 51.8 | 54.4 |
| Majene | 55.1 | 64.4 | 67.9 | 16.7 | 65.8 | 54.0 |
| Aceh Tenggara | 56.8 | 64.6 | 34.9 | 38.9 | 74.5 | 53.9 |
| Ngawi | 54.5 | 77.2 | 48.7 | 45.8 | 41.0 | 53.5 |
| Seruyan | 45.5 | 74.3 | 26.6 | 51.4 | 63.9 | 52.3 |
| Nagan Raya | 45.5 | 70.8 | 31.2 | 43.1 | 69.4 | 52.0 |
| Jombang | 44.4 | 78.5 | 50.5 | 27.8 | 58.5 | 52.0 |
| Halmahera Selatan | 48.0 | 62.3 | 50.3 | 44.4 | 53.0 | 51.6 |
| Purbalingga | 39.9 | 73.2 | 69.0 | 12.5 | 62.3 | 51.4 |

| District/Municipality | Transparency and Accountability | Education Service Provision Standards | Management Control Systems | Management Information Systems | Efficient Resource Use | ILEG index |
|---|---|---|---|---|---|---|
| Aceh Barat | 64.3 | 63.5 | 15.6 | 44.4 | 67.8 | 51.1 |
| Kaimana | 30.4 | 55.4 | 39.3 | 61.1 | 66.7 | 50.6 |
| Kulon Progo | 41.0 | 68.9 | 34.2 | 51.4 | 56.7 | 50.4 |
| Bireuen | 44.0 | 75.6 | 56.8 | 18.1 | 50.9 | 49.1 |
| Teluk Wondama | 51.4 | 50.4 | 33.9 | 59.7 | 49.4 | 49.0 |
| Kepulauan Sula | 25.5 | 41.0 | 48.2 | 52.8 | 75.6 | 48.6 |
| Palangka Raya | 34.6 | 79.4 | 45.8 | 33.3 | 43.7 | 47.4 |
| Aceh Barat Daya | 37.4 | 79.9 | 21.7 | 23.6 | 71.3 | 46.8 |
| Kotawaringin Timur | 27.9 | 77.1 | 8.9 | 51.4 | 59.2 | 44.9 |
| Sorong Selatan | 30.2 | 52.6 | 45.6 | 37.5 | 51.7 | 43.5 |
| Nabire | 46.2 | 48.6 | 42.2 | 27.8 | 42.3 | 41.4 |
| Pegunungan Bintang | 42.0 | 47.3 | 37.7 | 25.0 | 53.1 | 41.0 |
| Mamasa | 49.3 | 61.9 | 30.3 | 4.2 | 58.9 | 40.9 |
| Jayawijaya | 20.2 | 53.8 | 17.7 | 48.6 | 40.7 | 36.2 |
| Manokwari | 35.9 | 67.2 | 16.7 | 4.2 | 52.7 | 35.3 |
| Paniai | 13.7 | 37.2 | 35.4 | 19.4 | 30.6 | 27.3 |

*Note:* Scores recorded in the table are an average of a district's 2009 and 2012 scores. Red indicates scores between 0% - 45%, yellow 45%-60%, and green 60% - 100%. Scores below 45% are classified as low performance, 45-60% as average performance and above 60% as high performance.

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