Overview of the Education Sector in Indonesia 2012

Achievements and Challenges






Ministry of Education and Culture

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The Government of Indonesia (represented by the Ministry of Education and Culture, the Ministry of Religious Affairs, and the Ministry of National Development Planning / BAPPENAS), the Government of Australia, through Australian Aid, the European Union (EU) and the Asian Development Bank (ADB) have established the Education Sector Analytical and Capacity Development Partnership (ACDP). ACDP is a facility to promote policy dialogue and facilitate institutional and organizational reform to underpin policy implementation and to help reduce disparities in education performance. The facility is an integral part of the Education Sector Support Program (ESSP). EU's support to the ESSP also includes a sector budget support along with a Minimum Service Standards capacity development program. Australia's support is through Australia's Education Partnership with Indonesia. This report has been prepared with grant support provided by AusAID and the EU through ACDP.

Education Sector Analytical and Capacity Development Partnership (ACDP)

KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN

KEMENTERIAN AGAMA

BAPPENAS

EUROPEAN UNION

Australian AID

ADB

The institution responsible for implementation of the study was the **British Council.**

Foreword

This Overview of the Education Sector in Indonesia for 2012 has been prepared to provide objective and comprehensive information on the progress achieved and the challenges to be addressed to achieve the national goals for the education of our people. The Government of Indonesia recognizes that education is a fundamental human right, and education is a central component of the Government's human resources development policy. Education does not only fuel economic growth and improve national competitiveness, but is also plays a critical role in reducing poverty, strengthening democracy and producing creative citizens with high moral values.

The size, diversity and geographic characteristics of Indonesia present tremendous challenges for managing the education system. The system provides for over 54.8 million students (the 3rd largest in Asia and 4th in the world), employs some 3.0 million teachers who work in 236 thousand schools distributed in 33 provinces and over 500 districts with around 300 ethnic groups and 750 local languages.

During the past fifteen years Indonesia has emerged from severe economic and political crises while instituting a democratic and decentralized system of governance. Indonesia is now the world's third most populous democracy. One of the most significant changes for the Indonesian education system has been the decentralization of education governance and adoption of new systems for the central and local governments to work together in a democratic system to develop schools and institutions of higher education throughout Indonesia.

Since 2009 the Government of Indonesia has supported increased access and quality improvement of education through allocating 20% of the national budget to support development and operation of the education sector. The Government has worked to increase the availability of qualified teachers, especially in remote and rural areas in order to reduce regional disparities in educational attainment as well as levels of welfare and incomes. National programs such as the School Operational Assistance Program (*BOS*) for primary and secondary schools, the Operational Assistance for State Universities Program (*BOPTN*) and Scholarships for Poor Student (*BSM*) have provided special assistance to accelerate achievement of our goals.

Over the past two decades Indonesia has achieved significant progress in meeting its targets for participation and access to education at all levels. The expansion of access has also narrowed the gaps across income groups and regions. Indonesia is on track to achieve MDG targets and the Education for All (EFA) goals for basic education, including gender parity, and literacy. The number of private and public senior secondary schools has doubled from 12,415 to 26,896. The number of senior secondary school teachers nearly doubled during this time, from 342,443 to 571,591, and gross enrollment rates increased from 42.8% in 2000/2001 to 76.4% in 2011/12. We are working hard to achieve universal access at the senior secondary level.

The current Indonesian higher education system is diverse, with more than 5.4 million students attending some 3,600 higher education institutions. These include academies and community colleges; polytechnics; advanced schools; institutes; and universities. More than half of senior secondary graduates continue their education at institutions of higher education, and we expect that the transition rate will continue to grow. We are working to ensure that our children can continue their studies to higher education to reach their full potential and contribute to the modernization and growth of the national economy.

The main challenges facing Indonesian development are at least threefold: a) knowledge creation and absorption, b) mobility, and c) the convergence of civilization. First, knowledge is the most

valuable and important resource that drives social and economic activities, and becomes a critical asset for achieving national prosperity and progress. Second, the mobility of people has become an important factor within an increasingly knowledge based global economy. Ensuring the country's preparedness for facing the challenge and taking advantage of the opportunities of globalization is vitally important. Third, it is important to ensure that globalization creates a convergence of civilization rather than a clash of civilizations. Since education is the main source of knowledge creation, dissemination and absorption, it is no surprise that researchers have shown education to be the single greatest cause of economic inequality. Strategic investment in education is therefore critical to reduce such inequality, within and and between countries.

Indonesia is projected to become the seventh largest economy in the world in 2030, and the demand for Indonesian skilled workers will increase from 55 million in 2012 to 113 million in 2030 in order to maintain stable growth (McKinsey Global Institute Report, September 2012). Demographic analysis of population changes indicates that during the period 2010-2035 the country will experience demographic transition characterized by a low population dependency ratio. During this transition period, the productive population age group is much larger than the non-productive age group. This will create a golden opportunity, commonly referred to as a "demographic bonus", which provides the potential to advance through timely investment in more equitable and high quality education, training and life-long learning. If realized, this has the potential to create a highly productive workforce to support rapid economic growth in the future. However, if not realized, the nation risks facing a financial burden when the population aged 7-15 years is ready to enter the workforce during the period 2020-2025.

The above vision and the implications in terms of human resource development place a premium on the need to rapidly transform skills composition. A key strategy in taking this forward is the Government's recently introduced Twelve-Year Compulsory Education Program. In addition, to support improvement in the quality and relevance of education in a broader sense, a new and improved curriculum will be introduced from 2013 to cover early grades at primary, junior secondary, and senior secondary education levels.

With the support of all stakeholders in our diverse society, we are confident that these challenges will be well addressed. It is envisaged that this report will become a sustainable reference to support policy discussions for development of the education sector in Indonesia. **Let us all increase our dedication and efforts to provide educational services to all members of the community.**

Jakarta, June 2013
Minister of Education and Culture

Prof. Dr. Ir. Mohammad Nuh, DEA

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Our sincere thanks and appreciation are extended to Prof. Dr. Ir. Khairil Anwar Notodiputro, Head of Research and Development Agency, Ministry of Education and Culture, Dra. Nina Sardjunani, MA, Deputy Minister for Human Resources and Culture, *BAPPENAS* and Prof. Dr. H. Nur Syam, M.Si., Director General of Islamic Education, Ministry of Religious Affairs, who are esteemed Co-Chairs of the ACDP Technical Oversight Group for their valuable input and support in the preparation of this report.

To all members of the Study Team we extend our gratitude and thanks for their hard work and dedication which have contributed to the completion of this Overview of the Education Sector in Indonesia 2012 Report. Appreciation and thanks are extended to the British Council Study Team.

Our thanks are also extended to our development partners from the Australian Agency for International Development (AusAID), the European Union and the Asian Development Bank (ADB) for their support in the preparation of this Overview of the Education Sector in Indonesia 2012 Report, and to all others who contributed to the preparation of this document but cannot be mentioned individually.

May this report be used by all interested parties, including government and non-government organizations and the public.

Jakarta, June 2013
Senior Advisor to the Minister of Education and Culture
for Social and Economics of Education

Dr. Ir. Taufik Hanafi, MUP

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Abbreviations

ACDP	Education Sector Analytical and Capacity Development Partnership	*Kemitraan Pengembangan Kapasitas dan Analisis Sektor Pendidikan*
ADB	Asian Development Bank	*Bank Pembangunan Asia*
APBD	Province/District Budget	*Anggaran Pendapatan & Belanja Daerah*
APBN	National Budget	*Anggaran Pendapatan & Belanja Negara*
APBN-P	National Budget-Revision	*Anggaran Pendapatan & Belanja Negara-Perubahan*
AusAID	Australian Agency for International Development	*AusAID*
BALITBANG	Research and Development Agency within Ministry of Education and Culture	*Badan Penelitian dan Pengembangan, Kementerian Pendidikan dan Kebudayaan*
BEC-TF	Basic Education Capacity-Trust Fund (The Netherlands Government and European Commission funded project administered by the World Bank)	*Proyek di bidang pendidikan dasar yang didanai oleh Pemerintah Belanda dan Komisi Eropa, dan dikelola oleh Bank Dunia*
BAN-PT	National Board of Accreditation for Higher Education	*Badan Akreditasi Nasional-Perguruan Tinggi*
BAPPENAS	Ministry of National Development Planning	*Badan Perencanaan Pembangunan Nasional*
BKN	National Civil Servants Board	*Badan Kepegawaian Negara*
BOS	School Operational Assistance Fund	*Bantuan Operasional Sekolah*
BPS	Central Bureau of Statistics	*Biro Pusat Statistik*
BSNP	National Education Standards Board	*Badan Standard Nasional Pendidikan*
CPD	Continuing Professional Development	*Pengembangan Keprofesian Berkelanjutan*
CTL	Contextual Teaching Learning	*Pembelajaran Kontekstual*
DAK	Special Allocation Fund	*Dana Alokasi Khusus*
DAU	General Allocation Fund	*Dana Alokasi Umum*
DBE	Decentralized Basic Education (USAID program)	*DBE (Program USAID)*
DBH	Revenue Sharing Fund	*Dana Bagi Hasil*
DEO	District Education Office	*Dinas Pendidikan Kabupaten/Kota*
DGHE	Directorate General of Higher Education	*Direktorat Jenderal Pendidikan Tinggi (DIKTI)*
DPR-RI	House of Representatives (National level)	*Dewan Perwakilan Rakyat, Republik Indonesia*
DPRD	House of Representatives (Province and District level)	*Dewan Perwakilan Rakyat Daerah (Provinsi dan Kabupaten/Kota)*
D1, 2, 3, 4	Post-secondary diploma (1-year), (2-year), (3-year), (4-year)	*D1, 2, 3, 4*
ECD	Early Childhood Development	*Pengembangan Anak Usia Dini (PAUD)*
EFA	Education for All	*Pendidikan untuk Semua*
EMIS	Education Management Information System	*Sistem Informasi Manajemen Pendidikan*
EU	European Union	*Uni Eropa*
GER	Gross Enrollment Rate	*Angka Partisipasi Kasar (APK)*
GPI	Gender Parity Index	*Indeks Paritas Gender*
GR	Government Regulation	*Peraturan Pemerintah (PP)*
HE	Higher Education	*Pendidikan Tinggi*

HEI	Higher Education Institution	*Lembaga Pendidikan Tinggi*
INPRES	Presidential Instruction	*Instruksi Presiden*
KTSP	School Based Curriculum	*Kurikulum Tingkat Satuan Pendidikan*
KKG	Teacher Working Group	*Kelompok Kerja Guru*
LPMP	Institute for Education Quality Assurance	*Lembaga Penjaminan Mutu Pendidikan*
LPTK	Teacher training institutions – a generic name for HEIs producing teachers	*Lembaga Pendidikan Tenaga Kependidikan*
MA	Islamic Senior Secondary School	*Madrasah Aliyah*
MBS	School Based Management	*Manajemen Berbasis Sekolah*
MDGs	Millennium Development Goals	*Tujuan Pembangunan Milenium*
MI	Islamic Primary School	*Madrasah Ibtidaiyah*
MoEC	Ministry of Education and Culture, formerly Ministry of National Education (MoNE)	*Kementerian Pendidikan dan Kebudayaan (Kemdikbud)*
MoF	Ministry of Finance	*Kementerian Keuangan (Kemenkeu)*
MoRA	Ministry of Religious Affairs	*Kementerian Agama (Kemenag)*
MP3EI	Master Plan for Acceleration and Expansion of Indonesia's Economic Development	*Masterplan Percepatan dan Perluasan Pembangunan Ekonomi Indonesia*
MSS	Minimum Service Standards	*Standar Pelayanan Minimal (SPM)*
MTs	Islamic Junior Secondary School	*Madrasah Tsanawiyah*
MULOK	Local content curriculum	*Muatan local*
NER	Net Enrollment Rate	*Angka Partisipasi Murni (APM)*
NFE	Non-Formal Education	*Pendidikan Non Formal*
NUPTK	Teacher and Education Worker ID Number	*Nomor Unik Pendidik dan Tenaga Kependidikan*
OECD	Organisation for Economic Co-operation and Development	OECD
ODL	Open and Distance Learning	
P4TK	Center for Development and Empowerment of Teachers and Education Personnel	*Pusat Pengembangan dan Pemberdayaan Pendidik dan Tenaga Kependidikan*
PAKEM	Student-centered learning or Active, Creative, Effective and Joyful Learning	*Pembelajaran Aktif, Kreatif, Efektif dan Menyenangkan*
PDSP	Center for Education Data and Statistics	*Pusat Data dan Statistik Pendidikan*
PEO	Provincial Education Office	*Dinas Pendidikan Provinsi*
PLPG	Education and Training for Teacher Profession	*Pendidikan dan Latihan Profesi Guru*
PIRLS	Progress in International Reading Literacy Study	PIRLS
PISA	Program for International Student Assessment	PISA
PKB	*Pengembangan Keprofesian Berkelanjutan*	Continuing Professional Development
PLPG	*Pendidikan dan Latihan Profesi Guru*	Professional Teacher Education and Training
PNS	Civil Servant	*Pegawai Negeri Sipil*
PPPG	Center for Teacher Development	*Pusat Pengembangan Penataran Guru*
RA	Islamic Kindergarten	*Raudhatul Athfal*
RENSTRA	Five Year Strategic Plan	*Rencana Strategis*
SD	Primary School	*Sekolah Dasar*
SDLB	Special Needs Primary School	*Sekolah Dasar Luar Biasa*
SMA	General Senior Secondary School	*Sekolah Menengah Atas*
SMK	Vocational Senior Secondary School	*Sekolah Menengah Kejuruan*
SMP	Junior Secondary School	*Sekolah Menengah Pertama*

SMPLB	Special Needs Junior Secondary School	*Sekolah Menengah Pertama Luar Biasa*
SNP	National Education Standard	*Standard Nasional Pendidikan*
SSE	Senior Secondary Education	*Sekolah Menengah*
STR	Student/Teacher Ratio	*Rasio Murid/Guru*
SUSENAS	National Socioeconomic Survey	*Survei Sosial Ekonomi Nasional*
S1	Degree equivalent to a Bachelor's Degree	*S1*
S2	Degree equivalent to a Master's degree	*S2*
S3	Degree equivalent to a Ph.D.	*S3*
TK	Kindergarten	*Taman Kanak-kanak*
TIMSS	Trends in International Mathematics and Science Study	
TPA	Teacher Performance Appraisal	*Penilaian Kinerja Guru*
UN	National Examination	*Ujian Nasional*
UPTD	Sub-district Technical Implementation Unit	*Unit Pelaksana Teknis Daerah*
USAID	United States Agency for International Development	USAID


"PENDIDIKAN
PILAR KEBA

Executive Summary

This report on the education sector in Indonesia aims to present a picture of the path taken by the education sector since major political and socio-economic changes began to transform the country fifteen years ago. The report will show how education has changed, where the sector is currently and where it is likely to head in the foreseeable future.

Indonesia is the fourth largest country in the world, with more than 240 million people. The country is very diverse, with 722 languages spoken as first languages. Starting in 1998, Indonesia embarked upon a path of **political transformation** from an autocratic to a democratic form of government. Significant changes were initiated at all levels, particularly the devolution of significant levels of authority from central government to regional governments. **Indonesia's economy** is vibrant and diverse, and has been growing steadily at a rate of 4 to 6 percent over the last decade. Sustaining economic growth will be a major undertaking and the government recognises that improving the quality of the education system in order to move towards a knowledge based economy will be a key factor.

In the past 15 years, several significant developments have had a major impact on the education sector as it is today. These developments include:

- The rapid increase in the number of school age children due to rising birth rates, particularly from the 1950s until the 1980s;
- A major school construction program started in the mid-1970s, which saw a significant increase in enrollment rates, particularly at primary level;
- The inclusion of Islamic schools as a recognized part of the formal education system in the 1970s;
- The introduction of 6 years of compulsory education in 1984, raised to 9 years in 1994;
- The decentralization of education governance and management in the late 1990s, which has seen the main responsibility for education service delivery devolved to the district level.

The **education system** in Indonesia comprises formal education, which includes kindergarten through to university level, as well as non-formal education, which includes early childhood development (e.g. playgroups), school equivalency "packages" covering primary, junior and senior secondary school education, literacy classes and Islamic boarding schools or *pesantren*.

Following decades of centralized government administration during which most state functions, including education, were managed from Jakarta, the late 1990s saw a fundamental change as Indonesia embarked on what was to become a major program of **decentralization**. With many former Ministry of Education and Culture (MoEC) tasks transferred to regional governments, the main role of MoEC is to ensure that education is implemented in line with national goals and standards. This includes national regulation, macro level planning, national level policy-making, standard setting, and quality assurance.

Under a decentralized system, MoEC retains a direct presence in 31 out of 34 provinces through the direct management of Institutes for Education Quality Assurance (*Lembaga Penjaminan Mutu Pendidikan* or *LPMP*). The main role of *LPMP* is to assure quality education for kindergarten, basic and secondary levels.

The role of the Provincial Education Offices (PEO) has changed significantly. Previously, the PEO played a key role in directly managing the implementation of education services and programs, but this has changed. The main authority for delivering education services has been shifted from the provincial to the district level, limiting the provincial government's role in education to the coordination of education delivery between districts within each province.

The roles and responsibilities of District Education Offices (DEOs) include planning, implementing, monitoring and evaluating education programs and activities. The District House of Representatives (*DPRD*) is responsible for discussing and approving education programs and budgets proposed by the district government. In addition, an Education Council (*Dewan Pendidikan*) has been mandated at district and province levels as part of the decentralized education system. The Education Council is a non-governmental institution whose membership represents a cross-section of the community.

In general, decentralization has brought significant progress in using public participation to determine the direction of education development. Subsequently, the level of local control over education services is becoming increasingly direct and more straightforward. However, local government capacity for effective management and delivery of education services is variable and this remains a key challenge.

A decentralized education system also encourages increased autonomy at school level, which brings increased responsibilities for planning, implementation, monitoring and evaluating school programs and activities, as well as increased community participation through the establishment of school committees. A school-based management (*Manajemen Berbasis Sekolah* or *MBS*) approach has been adopted, which focuses on student-centered learning, effective school management, and community participation, particularly through the establishment of school committees. Although *MBS* is widely accepted as an appropriate model, significant challenges remain in implementing it nationwide.

School-based management has also altered the roles played by teachers, school principals, and the community. This has been particularly challenging for teachers, who have been required to make the transition from a teacher-centered methodology to a student-centered approach. School principals have also been expected to become more autonomous managers, capable of longer-term planning, transparent financial management, and the provision of effective support to, and monitoring of, teachers. In addition, communities have been expected to become more involved in school management through their representatives on the school committee.

Education financing works in multiple and complex layers, through which funding from the central government is transferred across government offices at central and regional levels. The variety of different education sector funding mechanisms presents significant challenges for effective and efficient planning, resource allocation and financial reporting.

At the district level, a majority of local governments allocate between 30% and 40% of their overall budgets to education. However, on average, 80-85% of education sector funding is allocated to personnel expenditures, which leaves a limited amount for education development.

Early childhood education, in the form of kindergartens, has long been a part of the formal education sector. However, a large part of the early childhood development sub-sector includes non-formal playgroups, childcare, integrated health services, and parent education groups. The Government has developed a National Strategy for Holistic Integrated ECD which sets out a broad framework for addressing children's basic needs such as health, nutrition, emotional and intellectual development. However, because ECD is largely community-based and involves multiple ministries, authorities and stakeholders, a regulation is challenging.

Although enrollment in various ECD activities has continued to increase, it is estimated that approximately 15 million children aged 0 to 6 years are not participating in any early child development program. There are also regional disparities, with provinces in Eastern Indonesia, in particular, having low participation rates. Other key challenges include the need to strengthen coordination and capacity, and to mobilise increased resources for ECD.

Over the past decade, Indonesia has made considerable progress towards achieving the Education for All (EFA) goals, which relate to free and compulsory **basic education** (primary and junior secondary education), including gender equity, and student performance outcomes.

However, these achievements have not come without challenges. Although national net enrollment rates are quite high at 95.5% in 2011/12 and there appears to be parity in terms of male/female enrollment in basic education, there are significant regional disparities, particularly in Eastern Indonesia. Also, the EFA Mid-Decade Assessment Report emphasized the need to improve the quality and relevance of education.

Basic education in Indonesia is divided into two levels: primary school (six years) and junior secondary school (three years). Although each level consists mainly of formal education, this sub-sector also includes non-formal education (out-of-school equivalency programs). Formal education at each of the two levels is provided by a combination of public and private schools (including both faith-based and for-profit schools), which falls under the responsibility of MoEC, and Islamic schools or *madrasah*, which falls under the responsibility of MoRA. Public schools comprise the majority of primary schools (79.8%).

The Government of Indonesia is committed to a compulsory, free basic education policy. To support this policy, it has implemented several programs. The School Operational Assistance or *BOS* program, introduced in 2005, has perhaps had the widest impact at school level across the country. The *BOS* program is based on enrollments and covers around 44 million students in 228,000 primary and secondary schools (public and private).

While overall enrollment rates, particularly for primary level, are high, a significant number of children, particularly those in remote, mountainous or island communities, still lack access to education. Although the overall transition rates from primary school to secondary school have increased significantly – net enrollment rates at junior secondary level rose from 58.6% in 2001 to 77.7% in 2011/12- more than half a million children still fail to continue their studies beyond primary level.

Senior secondary education consists of general senior secondary schools (SMA), vocational senior secondary schools (*SMK*), and Islamic senior secondary schools (MA). The past decade has seen significant growth in the SSE sub-sector, marked by increases in enrollment, the establishment of new schools, and increased provision by private education providers.

The significant increase in senior secondary enrollment over the past decade has masked regional disparities. Comparing senior secondary education GER across 460 districts reveals considerable variations between districts, from as low as 22.4% to as high as 134.3%. Seven provinces have districts with a GER below 30%. These disparities indicate that greater focus needs to be placed on expanding access to SSE in those districts and provinces. While Eastern Indonesia is typically regarded as lagging behind, geographical disparity is more widespread.

Senior secondary education also faces inefficiency issues due to dropout and repetition. In 2010/2011, 142,275 students dropped out from SMA, and 98,640 dropped out from *SMK*. Furthermore, a total of 27,215 students across both types of school repeated classes. Thus, in total, there were 268,130 students who either dropped out or repeated grades.

Vocational education and training in Indonesia has seen significant expansion over the past decade. This is particularly the case of vocational senior secondary schools, where enrollments increased 158%

between 2001 and 2010. This rapid growth in large part reflects the increasing priority given to this sub-sector as a key strategy for economic development. However, this significant growth has tended to be supply-driven rather than demand-driven, which has created challenges in ensuring that the skills of graduates from vocational education are matched to the demands of the labor market.

Vocational education and training is offered through both formal and non-formal services. Formal vocational education and training is offered at the secondary level through vocational senior secondary schools (*SMK*) and at the higher education level through Diploma I, II, III, and IV programs, including a 3-year program within polytechnics and academies (*akademi*) at the Diploma III level and the planned community college Diploma I or II programs.

The National Education Standards Board (*BSNP*) has issued detailed competency standards and curriculum guidelines for vocational education. In addition, the Ministry of Manpower and Transmigration has issued National Competency Standards for Work, which were developed in cooperation with industry stakeholders. Currently, the government is in the process of identifying feasible options for including industry-relevant competency standards in the curricula of the vocational schools.

Special needs education is a relatively new field within the education sector in Indonesia. During the past decade, significant developments have been made in establishing a more inclusive educational approach. Regulations require that provincial governments should provide at least one special school for each impairment and that district governments should provide inclusive special needs education in regular schools. The aim is for districts to provide inclusive education for all learners through the formal school system, and for provinces to provide the necessary support and referral systems for inclusive schools through their special education school networks.

While significant progress has been made, several issues remain. Many provinces, cities and districts are currently providing education for children with disabilities through two types of schools – segregated special schools and inclusive regular schools – with few links between them. There is also a lack of resources available, both in terms of funding as well as human resources for both special needs schools and inclusive education.

Non-formal education is provided by school equivalency programs at primary, junior and senior secondary levels. These programs play an important role in accelerating universal access to education by providing education for those who have missed out on schooling, have dropped out from school, and who are likely to be excluded from schooling. Over 800,000 people were enrolled in these programs in 2010. The value of non-formal education lies in its flexibility and the formal recognition it has received from the government.

Indonesia's efforts to reduce illiteracy through **literacy programs** are considered to have been very successful. Illiteracy rates among those aged 15 years old and above decreased by more than half between 2005 and 2009 (from 10.2% in 2004 to 5.3% in 2009). A major challenge is maintaining the literacy levels of those who have been through literacy programs.

The non-formal stream of Islamic education is provided by *pesantren* or Islamic boarding schools, which are found mostly in rural areas and teach primarily religious subjects (although their students may also attend formal schooling during the day). Often organized around a religious leader or *kyai*, *pesantren* have long played a key role in traditional Islamic education within Indonesia. They remain popular as a low-cost means of ensuring a religious education, particularly for lower socio-economic groups. An increasing number of *pesantren* have responded to the modernization of Indonesian society by adding more secular or general subjects to their curriculum. As part of this effort, they have also established schools or *madrasah* (or permitted their students to attend formal *madrasah* schools nearby where the national curriculum is taught). Currently, there are 25,785 *pesantren* of all types registered with MoRA, which serve 3,652,083 students and have a higher percentage of male (54.2%) to female (45.8%) students.

In addition, it should be noted that many private skills training institutions are operating. These largely cater to people continuing education beyond junior or senior secondary level (and drop outs from secondary education). Common courses include computing, hairdressing, sewing, and English language. In 2012, 575,000 people participated in around 18,000 such institutions, of which very few are accredited.

The **higher education** sector in Indonesia has expanded as the country's economy has grown. Currently, the Indonesian higher education system is diverse and boasts nearly 3,800 higher education institutions serving almost 5.4 million students. Higher education in Indonesia is still directly managed by the central government. MoEC is responsible for managing public and private higher education institutions, and MoRA is responsible for managing public and private Islamic higher education institutions. In addition, several other government ministries and agencies administer 82 higher education institutes.

Indonesia's higher education landscape is characterized by growth in provision by private institutions. Of the 3,794 higher education institutions, 96.3% are private. Although public institutions represent only 3.7% of the total, they account for 38.3% of enrollments. When compared to other countries in ASEAN, Indonesia's Gross Enrollment Rate (GER) for higher education is relatively low. Data shows that only 23% of youth in the 19-24 age group were enrolled in higher education in Indonesia in 2010, which is half of Thailand's GER.

Gender inequality increases as students move up through the various levels of HE. However, there are variations between public and private institutions. Female students are more highly represented at the diploma level in most institutions. Whilst at the highest level – PhD or *S3* – women make up only between 16.6% (in faith-based public institutions) and 36.5% (in general public institutions) of total enrollments.

The 2012 report of the Board for Higher Education Accreditation suggests that the overall quality of many HEIs in Indonesia is still limited. Covering all types of HEIs, there are a total of 14,489 study programs offered to students throughout Indonesia, with public institutions leading the way in terms of quality (with the exception of a few well-established private universities). A cause for concern is that a significant proportion (20.5%) of the total number of study programs has not yet been accredited, due to the limited number of assessors and the large number of study programs. More than half of these (67%) are private. Accreditation results provide a picture of the differences in quality between public and private HEIs with publicly provided programs being rated significantly higher than privately provided programs.

In 2011, the Government of Indonesia issued the Master Plan for Acceleration and Expansion of Indonesia's Economic Development (*MP3EI*) for 2011-2025. The plan provides a framework for transforming Indonesia into one of the ten largest economies in the world by 2025 by sustaining real national annual economic growth at 7%-9%. Higher education plays an important role in achieving this target by supplying high-quality, productive human capital as well as strengthening research and innovation.

The major changes in education in Indonesia brought about by the process of decentralization have also led to major changes in **teaching and learning**. Curriculum has undergone two fundamental changes over the past decade: reorientation and decentralization. Reorientation shifts curricula from being content-based to being competency-based. Reoreintated curricula no longer consist of a collection of materials and content that students must master, but rather the competencies that they must acquire. The second change is from a centralized formulation of curriculum content to a decentralized school-based formulation of curriculum (*Kurikulum Tingkat Satuan Pendidikan* or *KTSP*) which applies to both basic and secondary education. The difference between *KTSP* and the previous curriculum is that the former gives schools full authority to prepare their own education plans with reference to established national standards.

These changes have not been made without challenges – for example, many teachers have struggled to adopt the competency-based curriculum. Moving from a teacher centered, rote learning approach to a student-centered approach, which encourages questioning and creativity in the classroom, has also been challenging for many teachers.

The Indonesian education system uses both in-class tests and national examinations to assess **student learning outcomes** and academic achievement. The results of these tests and examinations are used to assess student levels and as prerequisites for students to move to a higher grade. National Examinations are mandated at the end of Years 6, 9, and 12. The national examination system presents significant challenges both in terms of its administration and in terms of its validity and reliability in assessing student learning outcomes.

Indonesia has been an active participant in international programs that measure students' levels of competence such as PISA (Program for International Student Assessment), PIRLS (Progress in International Reading Literacy Study) and TIMSS (Trends in International Mathematics and Science Study). PISA reading test results show that while overall reading competence continues to be fairly low – with large numbers of students clustered towards the lower end of the scale – there has been a gradual improvement over the nine-year period, from an overall average of 371 in 2000 to 402 in 2009. In competency in science, students in Indonesia ranked 38th out of 41 countries in 2000 and 60th out of 65 countries in 2009. In TIMSS measurements of competence in mathematics, Indonesia students were ranked 34th out of 38 countries in 1999 and 36th out of 48 countries in 2007.

Following the publication of TIMSS 2007, MoEC and the World Bank have worked together to conduct a video study, involving 100 schools from 17 provinces, to see what is happening inside mathematics classrooms in Indonesia. While the findings of the video study noted several positive aspects of teaching and learning, they also highlighted the teacher-centered nature of many classrooms, where students and teachers do not engage in conversations. In the classroom, teachers dominate the communication.

The Indonesian language, or *Bahasa Indonesia*, is used throughout the education system as the medium of instruction. However, *Bahasa Indonesia* is by no means universally understood. It is just one of 722 languages spoken in Indonesia. In urban areas, 8.5% of those aged between 5 and 9 had no ability in *Bahasa Indonesia*, while in rural areas almost 23% of children lacked ability. This implies that using *Bahasa Indonesia* as the exclusive medium of instruction – particularly in early primary education – may place children at a disadvantage. This issue is not widely appreciated, but it may contribute to Indonesia's relatively poor performance in international tests. It is significant that the teachers of thirteen-year-old Indonesian children participating in the 2006 PIRLS estimated that 21% of their students would "have difficulty understanding the spoken language of the test" even though the test was written in *Bahasa Indonesia*. The ubiquitous use of multiple-choice questions in National Examination (*Ujian Nasional* or *UN*) at all levels disguises the problem because it does not require any productive use of language.

Indonesia has undertaken major efforts to improve **teacher management**. These efforts have been supported by the 2005 law on Teachers and Lecturers. A key requirement under this law is that the minimum teacher academic qualification be increased from Diploma-2 (two years education after completion of senior secondary education) to an academic bachelor degree (*S1*) or *D4*. A second requirement is that all teachers must successfully complete the certification process by 2015. Further, the law sets minimum competency standards in the areas of professionalism, pedagogy, social skills and personal behavior. The law not only specifies what teachers should be able to do and how they should behave, but also addresses the issue of teacher welfare by introducing a new set of professional allowances for teachers who have successfully completed the teacher certification process and for those who work in remote areas.

The teacher workforce in Indonesia is very large, with over 2.7 million teachers currently employed in schools throughout the country. Yet this large teacher workforce is not a single, homogenous group – it is comprised of teachers with a variety of statuses, ranging from teachers with civil servant status (PNS)

to teachers working on a contract basis with national or district level governments, to teachers working on a contract basis with schools or foundations providing private education.

The increased recruitment and training of new teachers, particularly in the two decades since expanding primary schools, is reflected in the shifts seen in primary level teacher demographics. The percentage of teachers under 30 years of age has reduced significantly over the past decade, from 50% in 1999 to 13% by 2008, as those recruited during the expansion period in the 1970s and 1980s move closer to retirement age. At the same time, the number of new teachers entering the workforce over the past decade has continued to increase, relative to student enrollments. This shift has implications for addressing fundamental issues relating to teacher supply and distribution, particularly at the primary level.

Student/Teacher Ratios (STR) in Indonesia have been relatively low for a long time in comparison with other countries. However, teachers' educational qualification still varies considerably: 51% of teachers still do not have an S1/D4 qualification, and at 76%, the figure is even higher at the primary school level. As regards certification, around 1.9 million teachers have not yet been certified. The challenges are then to improve aggressively the qualification and competence by means of certification to ensure that all teachers meet requirements as set out in the National Education Standards (NES).

To support teacher quality management a Teacher Continuing Professional Development (CPD) and Performance Appraisal system has been established, which involves an annual cycle of professional development planning, implementation, and evaluation. In addition, MoEC is in the process of establishing a comprehensive system to improve the performance of school principals and school supervisors.

In the longer run quality improvement of teachers will have to be conducted at the pre-service education stages. In Indonesia there are 374 Teacher Training Institutes (32 public and 342 private institutions) to raise the caliber of candidate teachers entering the profession; ten Teacher Training Institutes were converted into universities in 1990 to provide higher quality programs with more content focus.

A major new initiative is the introduction of a post-graduate Center for Teacher Development (*Pusat Pengembangan Penataran Guru – PPPG*). This is a mandatory, post-graduate professional development program that candidate teachers are required to complete successfully before they can enter the profession. The objective of the *PPPG* is to ensure that candidate teachers will have the competencies required to plan, deliver and evaluate educational activities and to conduct and develop their professionalism on a continuing basis.

The government is currently putting new policies in place to improve the quality of students who want to become teachers. These include: (i) imposing quotas on the number of students allowed to enter teacher training institutes; (ii) improving student selection; (iii) providing scholarships for students who take up the teaching profession; and (iv) introducing the system of multi-subject teaching. Implementation is scheduled for 2013.

In conclusion, Indonesia has been undergoing a process of rapid change since its emergence as one of the world's largest democratic states more than a decade ago. In the context of decentralization, a strong regulatory framework for education has been put in place, including laws, regulations and standards, and this framework continues to be adjusted in order to better meet both national and regional realities and socio-economic changes. At the same time, major efforts have been made to ensure that relevant stakeholders at all levels have a clearer understanding of this new system.

Some of these key achievements and challenges in the education sector can be summarized as follows:

- *Decentralization*: Within just over a decade, Indonesia has managed to bring about profound changes in governance and management. Education management and service delivery has been largely devolved from the central level to the district/municipality level. Functions have been redefined and structures have been adjusted to support these new roles. At the same time, the capacity to effectively deliver quality education at this level remains limited in several areas.
- *Regulatory Framework:* The government has put in place a strong regulatory framework for education, in the form of Laws, Government Regulations, Ministerial Decrees, standards and other measures. Ensuring that this framework is fully understood and implemented, particularly at the regional level, remains key challenge.
- *Financing of Education:* The education sector is now receiving more funding than ever before, through a range of funding mechanisms. With the Constitution mandating that at least 20% of the budget at both national and regional levels be allocated to education, and a strong economy with increased economic growth predicted, funding for the sector is likely to continue increasing for the foreseeable future. The key challenge is to improve the effectiveness and efficiency of education spending.
- *Access:* Indonesia has made significant progress in increasing access particularly at primary and junior secondary education levels. However, there are still a significant number of children who do not have access to basic education, due to remoteness and/or poverty, and reaching these children remains an ongoing challenge. In addition, it will be important to focus efforts on equitable expansion of senior secondary education.
- *Free Basic Education*: In 2005, the Indonesian Government established the School Operational Assistance Fund or *BOS*, which enabled the abolition of tuition fees for primary and junior secondary schools. This has contributed significantly to improving access as well as ensuring that schools, particularly those in more remote or poorer communities, have an operational budget, often for the first time.
- *Quality:* Following the major achievements in increasing access to education the pressing priority is to improve quality. The establishment of the National Education Standards and related systems for planning, implementation and monitoring provide a framework for quality improvement. Teaching and learning has undergone a major change over the past decade, with a shift from a teacher-centered to a student-centered methodology. While major efforts have been made to train teachers and school principals in the new methodology, the impact has often been limited due to a variety of capacity constraints. A further key challenge is the need to develop appropriate and reliable systems for assessment of student learning as part of a coherent and integrated system for quality improvement.
- *Teacher Supply:* Indonesia has one of the lowest student-teacher ratios in the world. STR's are below global averages, and well below countries of similar development status, and below international benchmarks associated with good education quality. The fiscal implications of teacher utilisation are a key issue for the education sector. A large share of education expenditure is allocated to teacher salaries and allowances. In addition, the status of teachers has a significant impact, in particular the costs associated with the professional certification allowance and the financial implications of civil servant and non-civil servant teachers. Among the primary challenges with respect to teachers are to improve their qualification and competence, and to support a more sustainable quality improvement system by means of Continuous Professional Development system. In addition, redistribution of teachers needs to be undertaken to ensure more efficient utilization of the overall teacher workforce.
- *Relevance:* As Indonesia has developed into a middle-income country and as it continues to experience strong economic growth, the Government's economic development strategy gives high priority to improving the relevance of education and training to meet the needs of the labour market. The demand for advanced professional, technical and vocational skills is increasing, and changing quickly, as a result of international competition, fast changing technologies and globalization. In

view of these, improving the relevance of education will be critical for future competitiveness. It is time to increasingly adopt an approach to education that emphasizes the demand side, to ensure that the graduates of the education system will better match the need in the industry and business sectors.

Chapter 1
Introduction

This report on the education sector in Indonesia aims to capture a picture of the path the education sector has taken since over a decade ago when major political and socio-economic changes started to transform the country. The report covers the education sub-sectors, including formal and non-formal education, as well as the overarching areas of governance and education financing. In addition to providing a brief description of each sub-sector, the report highlights relevant trends for each sub-sector, as well as the key issues and challenges they face. Although the report does not provide specific recommendations for addressing ways in which issues should be addressed, it does, in places, suggest directions that could be taken.

The report begins by describing the country as a whole and discussing the political changes that were initiated at the start of the 'Reform Era' in 1998. The report goes on to briefly look at economic and demographic developments, particularly those affecting the education sector. Chapter 2 provides an overview of the education system and examines issues surrounding decentralization and finance. Chapter 3 covers the formal and non-formal sub-sectors of basic, senior secondary, vocational and special education. Chapter 4 examines the sub-sectors of higher education, both public and private. Chapter 5 looks at teaching and learning. Chapter 6 focuses on teacher management and development, specifically the issue of teacher distribution and teacher professional development. Finally, Chapter 7 concludes by consolidating the main points, including key achievements and challenges.

1.1 Indonesia

Indonesia is spread across a string of 17,508 islands[1] between the Indian and Pacific Oceans. With a population of more than 240 million, it is the fourth largest country in the world. Ethnically, it is a highly diverse country. Of the 722 living languages used as first languages in Indonesia, 719 are indigenous languages.[2] The national language is Indonesian, or *Bahasa Indonesia*, and is based on the Malay language of northeast Sumatra.[3] Besides containing hundreds of ethno-linguistic groups, the country has a range of economic and social systems from forest dwelling to urban cosmopolitans.

1 CIA. (2012). The World Factbook. https://www.cia.gov/library/publications/the-world-factbook/geos/id.html. Accessed on 2 Oct 2012.

2 Lewis, P. M. (ed.). (2009). *Ethnologue: Languages of the World, Sixteenth edition,* Summer Institute of Language (SIL) International, Texas. Online version http://www.ethnologue.com/.

3 For discussion on the use of Indonesian language as medium of instruction in classroom, please refer to Chapter 5 (5.5 Medium of Instruction).

Indigenous kingdoms existed in Indonesia before Europeans landed on the archipelago in the 1500s. Although nationalism arose gradually during the first decades of the twentieth century, the Dutch colonial period, it developed more rapidly during the short period of Japanese occupation in the 1940s. Indonesia declared its independence on 17 August 1945.[4] Set out in the preamble to the 1945 Constitution, five key principles embody the essence of the newly independent Indonesian state. These principles, the Pancasila principles, arose and resulted from a complex and sophisticated appreciation of the ideological needs of the new nation, particularly the vast cultural differences of its heterogeneous population. The Pancasila principles are: (i) belief in one supreme God; (ii) humanitarianism; (iii) nationalism expressed in the unity of Indonesia; (iv) consultative democracy; and (v) social justice. Similar to *Bahasa Indonesia*, which Sukarno also promoted, the Pancasila did not emerge from any particular ethnic group. Instead, Pancasila was intended to define the basic values for a unified "Indonesian" political culture.

Pancasila promotes a belief in monotheism, but in a religiously neutral and tolerant manner that places Islam on equal footing with other religious systems such as Christianity (Catholicism and Protestantism), Buddhism, and Hindu-Balinese, beliefs officially recognized by the government.[5] Although freedom of religion is guaranteed in the 1945 Constitution, religion remains a complex issue and influences many aspects of life in Indonesia, including education. Having the world's largest-Muslim population, Indonesia is now considered well placed to present an attractive democratic model for reform movements in the Islamic world.[6]

1.2 Political Developments

In May 1998, Indonesia entered an era of transformation, which was in one respect a journey from an autocratic to a democratic form of government. Early on, a regulatory framework was put in place to promote the development of a free, democratic and vibrant society. To this end, amendments were built into the Constitution pertaining to the respect for universal human rights; the establishment of an independent Constitutional Court; the restriction of presidential powers; the bolstering of Parliament's authority; and perhaps most importantly, the decentralization of government functions, including administrative powers, to regional governments. In reality, the country was moving from a unitary centralized state to a unitary decentralized state. Over the years, the policy intentions embedded in the regulatory framework have become reality on the ground. In the Suharto era, the executive was dominant and the legislature had more or less only a 'ratifying' function. However, this changed dramatically during the early stages of the transformation process, when there was a prominent shift in power from the Executive to the Legislature. This balance of power has remained in place until today.

The establishment of the Constitutional Court was a particularly significant development in Indonesia's transformation. Over the years, the Constitutional Court has developed into a highly respected and trusted institution. The Court has become the 'legislature of last resort' where civil society has the opportunity to defend its rights by requesting that legislation passed by the House of Representatives be changed or revoked. Important rulings of the Constitutional Court related to the education sector are described in Chapter 2.

Seen from a vertical dimension, the country's transformation was a journey from a centralized to a decentralized form of government. To date, decentralization has brought a mix of positive and negative experiences and outcomes. In successful districts, local government has become more responsive to the needs of the people, and more innovative in designing and implementing development activities.

4 Frederick, W. H. and Worden, R. L. (ed.). (1993). *Indonesia: A Country Study*, GPO for the Library of Congress, Washington.

5 Ministry of Religious Affairs website www.kemenag.go.id accessed on 2 Oct 2012.

6 Reid, A., (ed.). (2012). Indonesia Rising: The Repositioning of Asia's Third Giant. Singapore: Institute of Southeast Asian Studies, p. 11.

In other districts, local governments have sometimes found it difficult to change old ways of thinking and working in a centralized manner.

In response to the issues raised above, the government has embarked on a high-priority Administrative Reform Program. The overall objective of the program is to improve public service provision. Key components of the program include strengthening civil servant management systems and practices, harmonizing the regulatory framework between central and regional levels and strengthening the synergy between central and regional government by introducing a system of public service key performance indicators.

1.3 Economic Developments

Today, Indonesia's economy is vibrant and diverse; it has been growing steadily at an impressive rate of 4 to 6 percent over the last decade.[7] Indonesia ranks 44th among 139 countries in the Global Competitiveness Index (GCI) issued by the World Economic Forum. Its 10-position improvement in the overall ranking since 2005 is the highest of all G20 Countries.[8] According to the GCI report, Indonesia's strengths include its rapid growth rate, sound fiscal management, and large domestic market. Some current projections show that Indonesia will become Asia's third-largest economy (after China and India) by 2050, overtaking even Japan during that period.[9]

Regional diversity in economic expansion within Indonesia is an increasingly important growth stimulus. The Government of Indonesia has recently issued the Master Plan for Acceleration and Expansion of Indonesia's Economic Development (MP3EI) for 2011-2025. The plan is designed to provide a framework to transform Indonesia into one of the ten largest economies in the world by 2025 by sustaining real national economic growth at 7 to 9 percent per year. The strategy to implement this plan includes developing regional economic potential in several geographic areas with specific economic characteristics (Table 1 below),[10] known as the Six Indonesian Economic Corridors.

Table 1. Six Indonesian Economic Corridors

Economic Corridor	Specific Economic Characteristics
Sumatra	Plantations and energy
Java	Industry and support services
Kalimantan	Mining and energy
Sulawesi, North Maluku	Agriculture, plantations, fisheries, energy and mining
Bali, NTB, NTT	Tourism and agriculture
Maluku, Papua	Agriculture, fisheries, energy, and mining

Source: Coordinating Ministry for Economy. (2011). *Master Plan for Acceleration and Expansion of Indonesia's Economic Development (MP3EI) 2011-2025*

Indonesia is very rich in natural resources, particularly oil and natural gas. However, oil and natural gas are not the biggest contributors to Indonesia's GDP growth. In recent years other sectors such as tourism, manufacturing, communication, and business services have contributed more significantly to GDP growth (Table 2 below).[11]

7 World Bank. *Indonesia Overview*. www.worldbank.org. Accessed on 29 Sept 2012.

8 *Indonesia Shows Strongest Progress among G20 in New Competitiveness Report.* The World Economic Forum *www.weforum.org*. accessed on 29 Sept 2012.

9 Reid, A.. *Indonesia's New Prominence in the World*. in Reid (Ibid). p.4.

10 Coordinating Ministry for Economy. (2011). *The Master Plan for Acceleration and Expansion of Indonesia's Economic Development (MP3EI) 2011-2025*.

11 BPS (Central Bureau of Statistics). (2011). *BPS Strategic Data*. p. 14.

Table 2. Sources of GDP Growth by Sector (2010)

Industry Sector	Contribution to Growth (%)
Agriculture, livestock, forestry and fisheries	0.4
Mining and quarrying	0.3
Manufacturing	1.1
Electricity, gas and water	0.0
Construction	0.4
Trade, hotel and restaurant services	1.4
Transportation and communication	1.1
Finance, real estate and business services	0.5
Other services	0.5
Total GDP Growth 2010	**6.1**

Source: BPS (Central Bureau of Statistics). (2011). *BPS Strategic Data*

Sustaining economic growth at 7 to 9 percent over the next decade is a major undertaking. The government recognises that the key to achieving this will be diversifying the economy and improving innovation by moving to a knowledge–driven economy led by skilled human resources.[12] Improving the quality of the education system is critical to achieving these things. At the same time, sustained economic growth will help ensure that the resources are available to fund these improvements in education in Indonesia.

1.4 Demographic Developments

Among the structural advantages that result in optimism for Indonesia's economic growth and performance, is the very favorable population structure. The Population Census data for 2010 shows that the population has grown from more than 206 million in 2000 to over 237 million in 2010.[13] On the basis of this data, it is generally assumed that there has been an increase in the number of children born. However, the fertility rate is now down to around 2.1%, which is close to the level required simply to maintain the population. This suggests that population will stabilize in the foreseeable future.[14] A likelier explanation for this population growth seems to be the significant increase in life expectancy from 52.2 years in 1976 to 70.7 years in 2006.[15]

Comparing the number of children in the 7-12 years age cohort with the number of children in the 0-5 years cohort, it becomes apparent that the school-age population will become smaller in the years to come. On the basis of 2010 population census data, the total number of children in the 7-12 years cohort will decrease by about 628,000 over the next seven years. The proportion of population of productive working age is expected to peak around 2020.[16]

12 Coordinating Ministry for Economy, pp. 39-41.

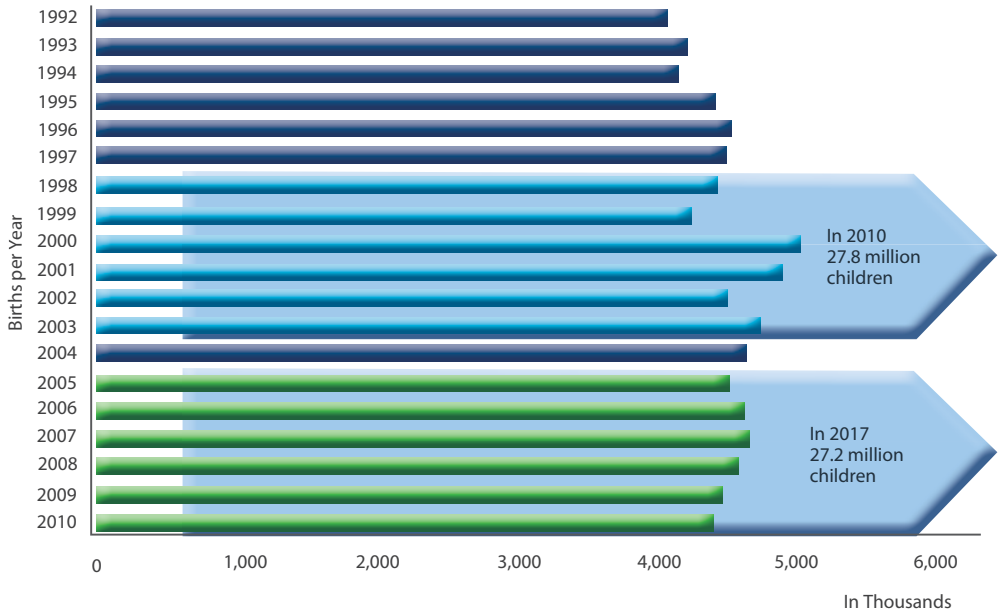
13 National Population Census data, 2000 and 2010

14 Philip Bowring. (2010). *Indonesia fertility rate is perfect for growth*. Jakarta Globe. 31 March 2010

15 BPS. (2012). *Trends of Selected Socio-Economic Indicators of Indonesia*. August 2012

16 Reid, p.4.

Figure 1. Projected Population of Children of Age 7-12



Source: BPS. (2010). *Population Census 2010.*

In view of the decrease in the school-age population and taking into account the very high participation rate at primary level, the current school infrastructure for primary education will be sufficient to absorb future learners. This means that there is likely to be only a very limited need to construct new primary schools and classrooms in the years to come. The main outstanding task is the rehabilitation of the existing school infrastructure. The significant demographic change should enable greater allocation of financial resources for the investments necessary for improving education quality and for increasing access to pre-school and senior secondary education.

All of the developments outlined above – political, economic and demographic – have had, and will continue to have, a significant impact on the development of the education sector. The following chapters will examine in more detail some of these impacts and the implications they may have for the future of education in Indonesia.

Chapter 2

Education in Indonesia – An Overview of the System

Each of the education sub-sectors within Indonesia – early childhood, basic, secondary, tertiary and non-formal education – needs to be viewed within the framework of the education sector as a whole, as well as within the wider historical, political, legal and financial context. Accordingly, this chapter will examine the relevant aspects of this framework and context, starting with developments of the past 40 to 50 years, which have directly shaped the education system as it is today. Following an overview of the formal education structure, key aspects of the regulatory framework will be outlined, as will the current strategic priorities of the Ministry of Education and Culture (MoEC) and the Ministry of Religious Affairs (MoRA) as expressed in the five-year strategic plan (or *Renstra*).

Perhaps the most significant change over the past decade, which has directly shaped the Indonesian education system as it is today, has been the decentralization of education governance and management. Section 2.5 will describe and examine the changes that have taken place at all levels, as well as some of the issues that have arisen from this process. Finally, this chapter will look at the way in which the sector is financed – the funding mechanisms and processes, as well as some of the key issues.

2.1 Recent Historical Context (1950s – 2000s)

The development of education in Indonesia has a long history. Earliest references to educational institutions were recorded during the Sriwijaya Empire, which dated from the 8th to 11th centuries AD[17]. However, developments that unfolded over the past 40 years have been most influential in shaping the current education system. Against the backdrop of a growing school-age population in the 1970s and 1980s, key developments have included:

- The significant increase in access, particularly to primary education, achieved under the program of school construction, which started in 1974;
- The integration of Islamic education into the general education system, which started in 1975;
- The introduction of six years of compulsory primary education in 1984; and
- The implementation of a decentralized education system over the past decade which has brought profound changes to Indonesia's education system.

17 Cribb, R. (2010). *Digital Atlas of Indonesian History*, Nordic Institute of Asian Studies, Copenhagen Univ.

2.1.1 High Birth Rates (1950s – 1970s)

The period following the end of the Second World War and the achievement of independence in Indonesia saw a significant increase in birth rates. This increase meant that Total Fertility Rates (TFR) remained high throughout the 1950s – from a TFR of 5.5 in 1950-55 to 5.7 in 1955-60.[18] Although fertility rates started to drop in the 1960s, due in large part to the government's family planning program, the large numbers of children reaching school age from the 1960s onward had a major impact on the provision of education services. This was especially true for basic education, as the number of school age children far outstripped the number of schools available and led government to focus on school construction.

2.1.2 System Expansion (1970s)

In 1974, the Indonesian Government launched a major program of school construction, particularly at primary level, but also at junior secondary level. Known as INPRES (*Instruksi Presiden* or Presidential Instruction), this policy, coupled with the abolition of primary school fees in 1977, resulted in a major increase in primary school enrollments.[19] In 1970, there were 13,395,000 children enrolled in primary schools. By 1980, this had risen to 22,487,000.[20]

2.1.3 Harmonization of Islamic/State Education (1970s – 1980s)

The first Law on Education (Law No. 4 of 1950) only regulated general education and religious teaching in schools. Islamic education, in the form of *pesantren* and *madrasah*, was neither mentioned nor recognized. Marginalization of Islamic education was reinforced in 1972 by Presidential Instruction No 34, which in effect placed Islamic education outside the state school system.[21] In 1975, there was a move to integrate Islamic schools into the state school system with the signing of a joint decree on the Increase of *Madrasah* Education Quality between MoEC, MoRA and the Ministry of Home Affairs (MoHA). This in effect equalized Islamic and state schools at primary and secondary levels and enabled students from Islamic schools to enter non-Islamic schools and vice versa.[22] In terms of curriculum, Law No. 8 of 1989 specified that 70% of the curriculum in Islamic schools would comprise the national secular curriculum with 30% religious education. This composition has been maintained to date.[23]

2.1.4 Introduction of Compulsory Education (1980s – 1990s)

In 1984, the government introduced a policy calling for six years of compulsory education (*Wajib Belajar 6 Tahun*). In 1994, the length of compulsory education was increased to nine years (*Program Wajib Belajar Pendidikan Dasar 9 Tahun)*[24], an amendment that remains in place today.

18 Bonaparte, S. (2009). *The Demographic and Socio Economic Determinants of Contraceptive Use in Indonesia.* MA Thesis. Princeton University.

19 Suwirta, A. (2009). *The History of Education in West Java, Indonesia: From Traditional Era toward Modern Era*. International Journal for Educational Studies, 1(2).

20 UNESCO. *Statistical Yearbooks*, 1969 – 1986.

21 Husni Rahim. (September 2005). Paper presented at the inauguration of Husin Rahim as Professor of Islamic Education at the State Islamic University (UIN) Jakarta.

22 Fajar, A.M. (2009). *Jangan Ada Penyeragaman*, in Gatra Sept 2009. Mr. Fajar served as Minister of Education between 2001 and 2004.

23 AIBEP (Australia Indonesia Basic Education Program). (2011). *Quality of Education in Madrasah: Main Study*. Jakarta.

24 Jakarta Post. (2010). *Analysis: Indonesia's 12-year compulsory education program*. 28 June 2010

2.1.5 Decentralization (Late 1990s – Present)

Of all the recent milestones in the provision of education in Indonesia, the decentralization of education, which began following the start of the reform period, has perhaps had the most impact. Following decades of centralized government administration during which most state functions, including education, were managed from Jakarta, the late 1990s saw a fundamental change as Indonesia embarked on what was to become a major program of decentralization.

The decision to decentralize was passed into law in 1999 with the ratification of Law No. 22 on local government. This law provided a framework and a direction, which aimed to give greater autonomy to provincial and particularly district authorities in terms of governance, management and delivery of services. One aim was to significantly improve public welfare by bringing public services closer to the communities they were meant to serve. Another was to promote democratic processes while at the same time preserving national unity. In 2004, a system enabling the direct election of governors and heads of districts (and parliaments) was introduced. The system facilitated a further move towards decentralization and further strengthened the process of democratization.

Decentralization has instigated significant and on-going change at all levels and in most sectors of government. The impact of decentralization on education is discussed in more detail in section 2.5 later in this chapter.

2.2 Structure of the Education System

As Figure 2 shows below, the formal education system in Indonesia starts with kindergarten at the age of five years and ends with university study. The education system involves a maximum of 23 years of education through to PhD level. At pre-tertiary level (i.e. kindergartens up to senior secondary education), education is managed under two systems. Under the decentralized system, the district level is mainly responsible for education management and the MoEC is responsible for overall governance. Under the centralized system for Islamic schools, MoRA is responsible for conducting governance and management. All tertiary education remains centralized under either MoEC or, for Islamic higher education institutions, MoRA.

Kindergartens are largely private, more often found in urban than rural areas and generally cater to children aged five to six years.[25] Basic education covers nine years of education in total, including six years of primary school and three years of junior secondary school. Although the official entry age for primary school is seven years, it is common to find a large number of six-year-old children enrolled in the first year of primary school.

After completing six years of primary education, children move up to junior secondary school level for a further three years, and then into senior secondary education. For senior secondary education, within both the Islamic and non-Islamic systems, students can choose to attend either more academically oriented schools or vocational schools. At the tertiary level there are a number of different types of institutions, including public, private and Islamic universities, training institutions and (yet to be established) community colleges.

25 Playgroups and other forms of early childhood education are not included here as they are under the non-formal system.

Figure 2. Indonesia's Formal Education System

Age	School Year	Education Level	Education Delivery	
			Decentralized	Centralized
Above 22	23	Higher Education		Doctoral (includes General & Islamic, and Vocational, Academic & Professional)
	22			
	21			
	20			Master (includes General & Islamic, and Vocational, Academic & Professional)
	19			
22	18			Undergraduate (includes General & Islamic, and Vocational & Academic)
21	17			
20	16			
19	15			
18	14	Secondary Education	General Senior Secondary & Vocational Senior Secondary (*SMA* & *SMK*)	Islamic General Senior Secondary & Islamic Vocational Senior Secondary (*MA* & *MAK*)
17	13			
16	12			
15	11	Basic Education	Junior Secondary (*SMP*)	Islamic Junior Secondary (*MTs*)
14	10			
13	9		Primary (*SD*)	Islamic Primary (*MI*)
12	8			
11	7			
10	6			
9	5			
8	4			
7	3			
6	2	Early Childhood Education	Kindergarten (*TK*)	Islamic Kindergarten (*RA*)
5	1			

Source: Developed by authors of this report from various sources

Each of these levels of education, and the different types of institutions found in each, is described and discussed in more detail in Chapters 3 and 4.

The average level of educational achievement is still relatively low. The average number of years of education of Indonesian citizens aged 19 years (the age when a student should complete senior secondary school) and older was 8 years in 2010, equivalent to the second year of junior secondary school.

However, a recent study by UNESCO suggests that this will improve considerably. The study projects that future 'school-life expectancy[26]' in Indonesia will increase to 13-16 years, comparing favourably with middle-high income countries (Table 3).

26 School-life expectancy is defined as the average number of years that a child is likely to spend in the education system in the future

Table 3. School-life Expectancy for Representative Group of Countries from the Various Income Strata, 2009 or the Latest Year Available

National income level	School-life expectancy (in years)			
	4 to 7	8 to 12	13 to 16	17 to 21
Low	Central African Republic			
	Eritrea	Burundi		
	Niger	Ethiopia		
		Malawi		
		Mozambique		
		Guinea-Bissau		
Low-middle	Djibouti	Cambodia	Mongolia	
	Pakistan	India		
	Chad	Gambia		
	Senegal	Ghana		
	Burkina Faso	Guinea		
Middle-high		Armenia	Algeria	
		China	Serbia	
		El Salvador	Brazil	
		Guatemala	Colombia	
		Paraguay	**Indonesia**	
High		Oman	Saudi Arabia	Australia
		Turkey	Poland	Denmark
		Trinidad and Tobago	Argentina	Finland
		Botswana	Mexico	Iceland
			Greece	Norway

Source: UNESCO (2012). *World Atlas of Gender Equality in Education. p. 14*

2.3 Regulatory Framework

There have been a number of key laws, regulations and policies, which have provided an overall framework for education sector development in Indonesia, particularly in relation to decentralization. While some of these are covered more comprehensively elsewhere in this report, key regulations are outlined as follows:

2.3.1 Regional Government

Law No. 32 of 2004 concerning regional government was essentially a revision of the earlier Law No. 22 1999 which set out the overall framework for decentralization. Law No. 32, together with Law No. 33 (related to financing) and the regulations developed later which put them into operation, were very important in determining the decentralized functions for managing and implementing basic education, as well as the mechanisms through which decentralized education is funded.

2.3.2 Education Standards

The core regulation of education is Law No. 20 of 2003 regarding the National Education System. This Law reconfirms that general schools and Islamic schools are part of one national education system. It provides an umbrella and a basis for education development within the framework of regional autonomy and decentralization, and it defines a number of key areas, including the function and purpose of education, the rights and obligations of citizens, parents, community, and government, national education standards, curriculum, personnel and their roles and responsibilities, education facilities,

education finance, management, and evaluation, accreditation, and certification, among others. Several aspects of this law have been more clearly defined by government regulations and Ministerial Decrees covering national standards, management, and education facilities.

One key government Regulation (GR) on National Education Standards (GR 19), issued in 2005, mandated the establishment of the National Education Standards Board (*BSNP*). This Board was tasked to prepare the detailed education standards for the following eight areas: content, process, graduate competency, teacher standards, school facilities, education management, funding and assessment.

As required by government Regulation 19 of 2005, the government has formalized these national standards through ministerial decrees. The eight standards are used as the basis for assessing school accreditation and have been further developed into Minimum Service Standards. In July 2010, the Minister of Education issued Ministerial Regulation No. 15 on Minimum Service Standards (MSS), which provides a benchmark for basic education services delivered at the district level. This regulation is a policy instrument, which ensures that the minimum condition for learning is available at every school and district, and is the first step toward achieving the National Education Standard (NES).[27] Minimum service standards (MSS) have been developed for basic education, covering primary and junior secondary schools, and are currently being developed for early childhood education and senior secondary education (SSE). The standards are divided into two areas: standards at district (*Dinas Pendidikan*) level and at school level. At district level there are 14 standards covering facilities, teachers, curriculum, and quality assurance. At school level there are 13 standards related to facilities, teachers, curriculum, assessment, quality assurance, and school management.[28]

2.3.4 Constitutional Court Decisions on Education Financing

In August 2003, the House of Representatives passed the Constitutional Court Law (Law No. 24 of 2003) and established the Constitutional Court with the main aim of safeguarding democracy and the Constitution according to the principle of the rule of law. To date, the Constitutional Court has issued at least three major rulings related to the education sector. These rulings relate directly to the budget allocation for education, the funding for private education, and the introduction of performance-based block grants for higher education.

In terms of the budget allocation for the education sector, under the fourth amendment of Indonesia's Constitution (Chapter XIII, Article 31), it is stipulated that at least 20% of the national government budget (*APBN*) and regional government budgets (*APBD*) must be allocated for implementation of the national education program. Soon after the newly amended Constitution was launched on August 10, 2002, there was a debate concerning whether or not the 20% budget allocation for the education sector included teachers' salaries. With Education Law No. 20 of 2003, the government clarified that the 20% excluded teachers' salaries. However, because such a large amount of education spending is used for salaries, the budgetary implications of this were problematic. For example, it was estimated that in order to reach the 20% benchmark excluding teachers' salaries, sub-national spending on education would need to increase from approximately 28% (which was mainly salaries) to at least 45%.[29] In light of such estimates, in 2008 the Constitutional Court ruled that teachers' salaries would be included in the 20% constitutional requirement for national and regional government budgets.

The second Constitutional Court ruling was related to basic education provided by community-based institutions. In 2011, the Constitutional Court redefined the government's obligation to community-based education and ruled that the government must provide support to community-based education institutions by providing basic education. The Court also ruled for the government's obligation at the

27 EU, MoEC and ADB. (2010). *Baseline Survey; Minimum Service Standards in Education*, p 7.

28 MoEC. (2010). Ministerial Regulation No 15 on Minimum Service Standards.

29 World Bank (2007). *Investing in Indonesia's Education: Allocation, Equity, & Efficiency of Public Expenditures*.

senior secondary level to remain unchanged, which meant that the government could provide support to community-based institutions providing senior secondary education, but that it was not required to do so.

The third ruling related to higher education. Under Law No. 9 of 2009, the government encouraged four established public universities to be less dependent on central government funding. To achieve this, performance-based block grants were introduced, to replace earmarked grants, which had been used previously. As a result, the universities lost a large share of their operational funding sources, which they had to make up for by increasing tuition fees and diversifying their programs of study to attract more fee-paying students. Opposition to this new law, which included demonstrations and pressure from students, parents, and NGOs inspired the Constitutional Court to revoke Law No. 9 of 2009 in April 2010.[30]

2.3.5 Free Education Policy

The provision of free basic education by central and regional governments was mandated under Article 34 of the National Education Law (Law No. 20 of 2003). In 2005, the government abolished school fees for primary and junior secondary levels as part of its commitment towards meeting the requirements of Law No. 20. Known as the School Operational Assistance Program (or *BOS*), this subsidy was financed through fuel subsidy reductions and aimed to improve access to basic education for children from poorer families. Assistance was based on the number of students, with a fixed amount per student, and with a higher amount reserved for junior secondary level.

While benefiting many schools and families, particularly those in more remote and socio-economically disadvantaged areas, the subsidy has led to a decline in the level of parental and community support in some schools. The impact of this free education policy is further discussed below in Section 2.6 on Education Financing as well as in Chapter 3, Section 3.2 on Basic Education.

2.4 Strategic Priorities

The setting of strategic priorities for education, whether under MoEC or MoRA, takes place within the framework of the overall national plans developed under the Ministry of National Development Planning (*BAPPENAS*). The national Medium-Term Development Plan (or *RPJM 2010-2014*) is the basis all ministries (including MoEC and MoRA) and local governments use in formulating their Strategic Planning to contribute to the realization of the 2005-2025 National Long-Term Development Plan: an Indonesia that is self-reliant, advanced, just, and prosperous.[31]

The stages of development to achieve this national long-term vision are:

1. The First National Medium-Term Development Plan (*RPJM* 2005-2009) was the first step of reform undertaken by the government.
2. The Second National Medium-Term Development Plan (*RPJM* 2010-2014) aims to consolidate reform by emphasizing efforts to increase the quality of human resources and strengthen economic competitiveness.
3. The Third National Medium-Term Development Plan (*RPJM* 2015-2019) will be directed at achieving economic competitiveness on the basis of natural resources and the quality of human resources, and at increasing capability to master science and technology.
4. The Fourth National Medium-Term Development Plan (*RPJM* 2020-2025) aims to realize an Indonesia that is self-reliant, advanced, just, and prosperous by accelerating development on the basis of solid economic structures, supported by high-quality, competitive human resources.

30 Constitutional Court website www.mahkamahkonstitusi.go.id accessed on 1 September 2012.

31 English translation of the long-term vision by Bappenas. *RPJM* 2010-2014, www.bappenas.go.id. Accessed on 30 Sept 2012.

Education is priority number 2, after bureaucracy reform, in the 2010-2014 National Medium-Term Development Plan. Primary objectives for development in the education sector in 2010-2014 include reducing illiteracy, increasing access to all levels of education from basic to higher education, and reducing gaps in participation and quality of education services between regions, genders, students from different socio-economic backgrounds, and public and private delivery.

BAPPENAS plays an important role in planning and prioritizing the government's long-term and medium-term development agenda. *BAPPENAS* also acts as an administrator in maintaining government documents in planning and evaluation, including foreign loans and grants.[32]

2.4.1 MoEC Strategic Priorities

The MoEC Strategic Plan (*Renstra*) 2010-2014 outlines an overall vision of the plans is to *create comprehensively bright Indonesian individuals*".[33] Five 'missions' support this as the basis for educational programs:

1. Improve availability of education services;
2. Improve affordability of education services;
3. Improve quality and relevance of education services;
4. Improve equality in obtaining education services;
5. Improve assurance/guarantee of obtaining education services.

The programs set to achieve these missions are defined in terms of six strategic objectives as follows:

1. Availability and affordability of early childhood education services which are of high quality and are equal in every province, district and city.
2. Guarantee to obtain basic education services of high quality and that are equal in every province, district and city.
3. Availability and affordability of secondary education services which are of high quality, relevant and equal in every province, district and city.
4. Availability and affordability of higher education services, which are of high quality, relevant, internationally competitive and equal in every province.
5. Availability and affordability of sustainable adult education services which are equal, of high quality, and relevant to the needs of society.
6. Availability of reliable governance systems to ensure the delivery of excellent national education services.

It is important to note that although the *Renstra* is a national strategic plan, its achievement depends on how it is implemented at sub-national levels. The capacity and competence of education service providers at local levels vary, which may create gaps in education development achievement between regions. Also in the context of national development, the education sector is not isolated; its implementation relies on other sectors, including the economy and infrastructure. Therefore, holistic and integrated regional development plans are important to ensuring effective implementation of *Renstra*.

2.4.2 MoRA Strategic Priorities in Education

In contrast with MoEC, which focuses on education (and with the recent restructuring, cultural affairs), the scope of MoRA is wider, covering not only Islamic education but also other areas such as the annual pilgrimage to Mecca and the distribution of religious texts. Improving the quality of Islamic education

32 Narasi Renstra Bappenas, www.bappenas.go.id. Accessed on 30 Sept 2012.

33 MoEC (2010). 2010 – 2014 *Ministry of National Education Strategic Plan* (English translation by ACDP Secretariat)

delivery, from Islamic kindergartens to higher education, is one of five key missions set forth in the 2010 – 2014 MoRA Strategic Plan. Strategic objectives under this mission include improved access at all levels of education, provision of international standard *madrasah* at provincial level, improved access to Islamic higher education, improved quality of Islamic higher education, establishment of Islamic schools able to meet the national education standards set by the government, provision of non-formal education (school equivalency packages A, B, and C) at *pesantren*, improved governance of Islamic schools, improved quality and welfare of teachers in Islamic schools, provision of one-roof education at *madrasah* and *pesantren*, and improved community participation in delivering faith-based education.[34] These higher-level strategic objectives for Islamic education in the MoRA *Renstra* are largely consistent with those in the MoEC *Renstra*.

2.5 Decentralization

The laws and regulations indicate that education decentralization requires that a certain set of conditions are in place at both local government and school levels, in order to be able to implement education programs effectively. Decentralized education brings about changes in roles and responsibilities as well as structures at each level of government and in terms of funding allocations for the education sector.

The process of decentralization involves shifting functions from higher to lower levels and then aligning structures with the new functions, as defined by the regulatory framework of Laws, government Regulations, Ministerial Decrees, and standards. It is perhaps inevitable that issues and challenges related to roles and structures will arise during this process. This section will explore these issues from Ministry to school levels. Under a decentralized system, roles and structures have been broadly defined as follows:

2.5.1 Central Level

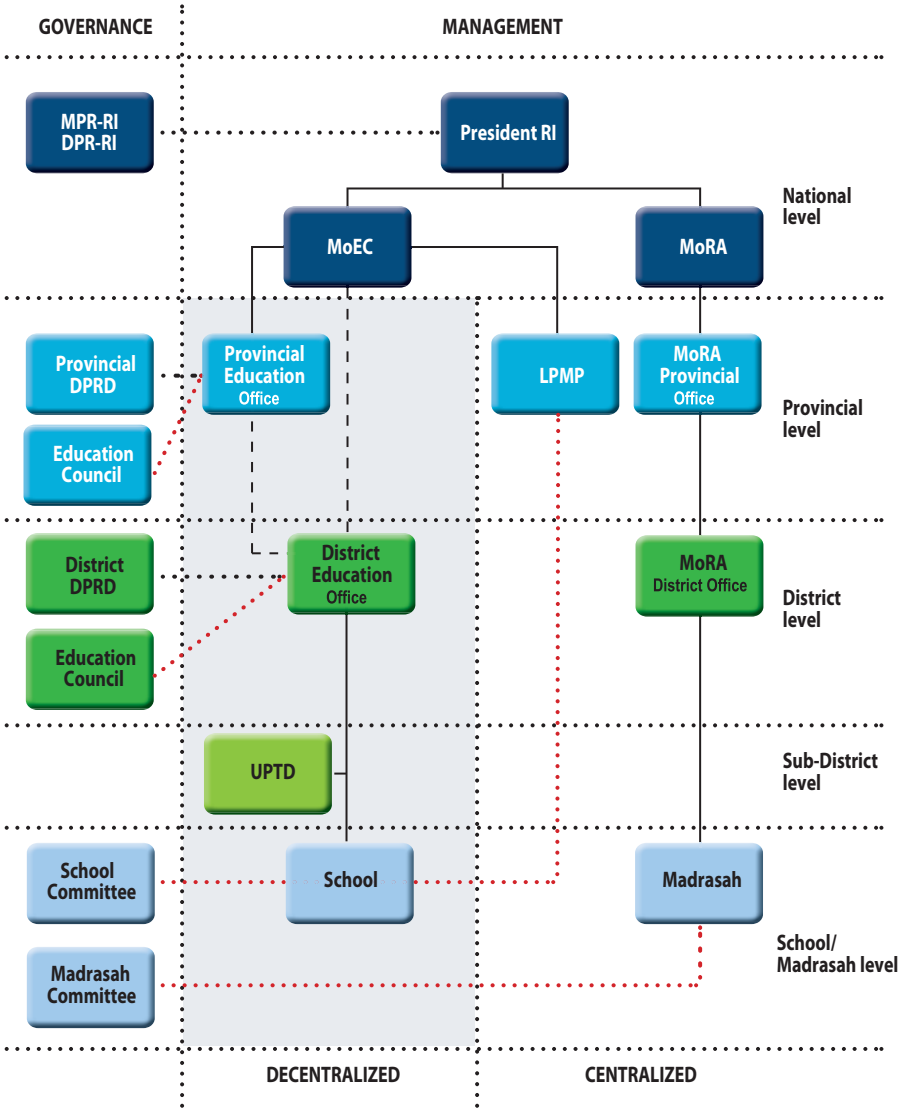
Education in Indonesia involves many authorities and actors. At the national level, the main authorized agencies are the Ministry of Education and Culture (MoEC) and the Ministry of Religious Affairs (MoRA). Other supporting central government institutions that play a more indirect role in education governance are the Ministry of Finance (to coordinate the education budget), the Ministry of Home Affairs (to coordinate the implementation of regional autonomy and regional government performance), and the House of Representatives or *DPR-RI* (to discuss and approve national education programs and budgets).

The House of Representatives works with the relevant ministries through its commissions. The Education Commission meets with relevant ministries, including MoEC and MoRA, to request information and discuss specific policies and programs. Whether or not these policies or programs can be implemented depends on the approval of the House of Representatives.
As education is managed in two distinct ways – decentralized (under MoEC) and centralized (under MoRA) – the lines of management and accountability from school level to Ministry level are different. Under MoEC program implementation and delivery is conducted by district governments, including education and reported to MoEC and the Ministry of Home Affairs. Under the more centralized Islamic school system, *madrasah* report to the Ministry of Religious Affairs through the Ministry's offices at district and province level instead of through local government. Except for that which oversees coordination, there is no direct management authority between Provincial and District Education Offices.

34 MoRA (2010). 2010 – 2014 MoRA *Strategic Plan*, www.kemenag.go.id accessed on 18th Sept 2012.

This system of governance and management can be summarized in the following diagram:

Figure 3. Education Sector Governance and Management



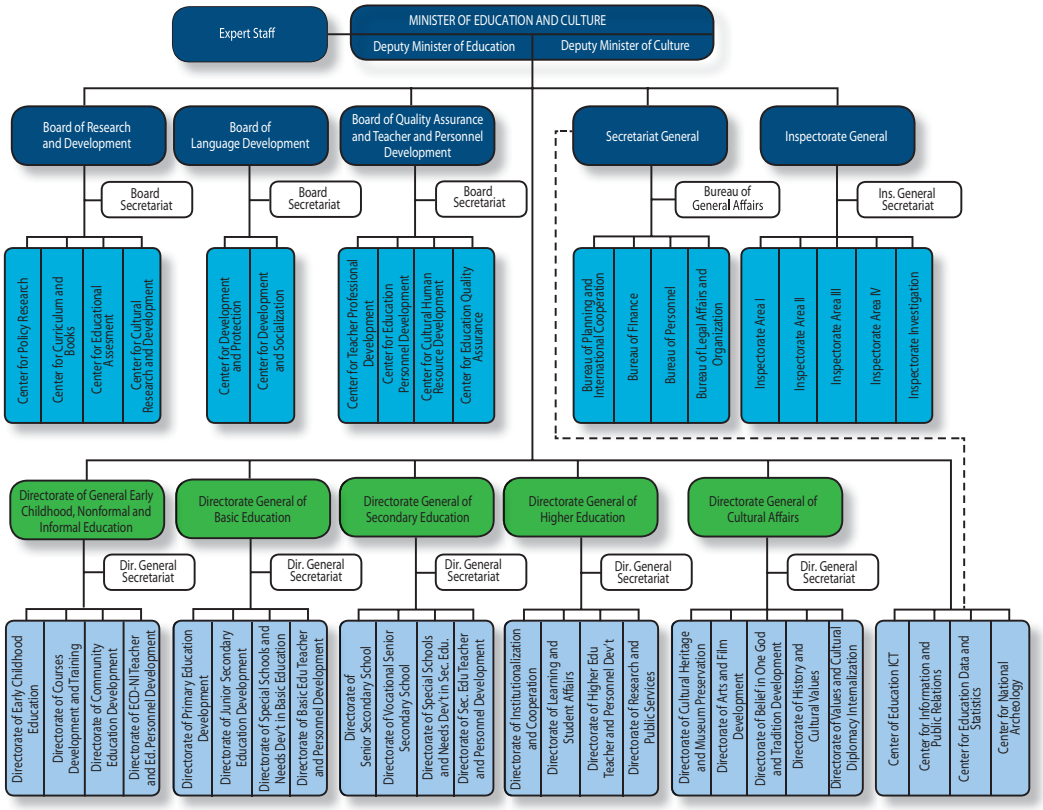
Source: Constitution, Law No. 32 of 2004, Law No. 20 of 2003, GR No. 38 of 2007, Ministerial Decree No. 1 of 2012, Minister of Religious Affairs Decree No. 10 of 2010

Decentralization has been reflected in many MoEC tasks being transferred to sub-national governments. Therefore, the main role of MoEC has become to ensure that education is implemented in line with national goals and standards. MoEC's new role includes national regulation, macro level planning, national level policy making, standard setting and quality assurance. At the same time, MoEC continues to fund and implement a number of national programs.

MoEC has been restructured twice over the past five years, in 2010 and again in 2012. The restructuring in 2010 reallocated the functions of the Directorate General for Teacher Development to a Board (*Badan*) and reallocated responsibility for teacher development within each sub-sector (i.e. ECD and Non-formal, Basic Education, Secondary Education and Higher Education) to the appropriate Directorate General. This restructuring may potentially contribute to a degree of fragmentation, which may need attention. In 2012, further restructuring was undertaken, which included the addition of the Directorate General of Cultural Affairs, which had previously been under the Ministry of Culture and Tourism.

Under the revised organizational structure of the Ministry of Education and Culture (2012), tasks are divided among the Directorate Generals according to education levels and subsectors, as illustrated in the following diagram:

Figure 4. MoEC Organizational Structure



Source: drawn from Ministerial Decree No. 1/2012 (Permendikbud Nomor 1 Tahun 2012)

The inclusion of Cultural Affairs has added one new Directorate General, with five Directorates. Overall, the restructuring has actually expanded the size of the Ministry, not only by adding Cultural Affairs, but also by splitting the former Basic and Secondary Education Directorate General into two Directorates Generals.

While education has been decentralized, MoEC retains a direct presence in 31 out of 33 provinces[35] through direct management of Institutes for Education Quality Assurance (*Lembaga Penjaminan Mutu Pendidikan* or *LPMP*) located at provincial level. As stipulated in Ministerial Decree 07/2007, the main role of *LPMP* is to assure quality education for basic and secondary levels, including kindergartens. Specifically, tasks assigned to the Institute include mapping and monitoring the quality of education, supervising schools to ensure national standards of quality education are achieved, and facilitating development of human resources to meet the standards. The Decree specifies that *LPMP* report to the Board of Education, Human Resource Development and Quality Assurance. Although *LPMP* is responsible to MoEC, the Decree requires that *LPMP* provide information to provincial and district level governments. However, in some instances, there is still a lack of clarity over roles and limited coordination exists between *LPMP*, Provincial Education Offices (PEOs) and District Education Offices (DEOs) – for example, with regard to responsibility for teacher training.

35 The exceptions are West Papua (currently covered by Papua LPMP, though construction of an LPMP in West Papua is underway) and Kepulauan Riau Province, covered by Riau Province LPMP.

Decentralization has had little, if any, impact on MoRA, which remains centralized. Within MoRA, responsibility for Islamic education, particularly *madrasah,* is managed by the Directorate General of Islamic Education. Responsibility for other denominational or faith-based education is divided across several directorates. Education in *madrasah* is handled by one directorate, the Directorate of Madrasah, while higher education is managed by the Directorate of Islamic Higher Education. However, over 90% of *madrasah* are managed by the community, usually through Islamic foundations.[36]

2.5.2 Provincial Level

Structurally, responsibility for education at the provincial level rests with Provincial Education Offices (PEOs) and the provincial offices of the Ministry of Religious Affairs. While little change has been made to structures under MoRA at provincial level, PEOs have undergone changes that have already taken place at central MoEC level. While the actual structure varies from province to province, it tends to follow the structure of MoEC.

Under the decentralized system, the roles of the PEO have changed significantly. Previously the PEO played a key role in directly managing the implementation of education services and programs, but this changed following the decision to decentralize. With the main authority for delivering education services now focused on the district level, the provincial government's role in education has become more limited, focusing on coordinating education between districts within each province.

While direct responsibility for education management has shifted to the district level, the PEO has retained direct management control over special needs education schools (*sekolah luar biasa*) catering to children with disabilities. However, under the MoEC's policy on inclusive education, responsibility for children with special needs who can be integrated into regular schools has been devolved to the district level (for more detail on special needs education, refer to Chapter 3).

2.5.3 District Level

Decentralization has initiated significant structural changes at the district level, where education is managed by the District Education Office (DEO or *Dinas Pendidikan*) and the MoRA District Offices (Kantor Kemenag). Under the decentralized system, district-level governments, and more specifically, DEOs, now have a much more significant role to play in the delivery of education services. The roles and responsibilities of DEOs include planning, implementing, monitoring and evaluating programs and education activities in their districts. These roles occur under the regulatory framework outlined above. For example, Ministerial Decree 50/2007 provides a detailed definition of district government roles and responsibilities, which include ensuring compulsory education, increasing secondary education enrollments, expanding literacy programs, providing quality assurance, improving teacher qualifications and competence, providing school accreditation, increasing the relevance of education, and complying with education minimum service standards.

The district-level House of Representatives (*DPRD*) has the role of discussing and approving education programs and budgets proposed by the district-level government. Ministerial Decree 044/U/2002 requires the establishment of Education Councils in each district and also school committees (*komite sekolah*). The Education Council is a non-governmental institution meant to take a role in education governance and whose membership is intended to represent a cross-section of the community. School committees have been mandated by MoEC to provide a link between the local community and the school.

There are a number of issues related to the effectiveness and functioning of these two bodies. These issues are discussed further below.

36 MoRA. (2010). *Buku Statistik Pendidikan Islam*.

In most districts, the DEO also manages a sub-district level technical implementation unit (*Unit Pelaksana Teknis Daerah* or *UPTD*)[37], which is responsible for supporting and monitoring primary schools within its area. Generally, primary school supervisors are located in the UPTD office. Both the DEOs and, to a lesser extent, the UPTDs have undergone significant restructuring under decentralization. Although these units are not identical throughout Indonesia, the structure and divisions (*bidang*) of DEOs usually follow the structure and names of the MoEC Directorates General, thus ensuring corresponding links with MoEC. For example, the DEO will usually have divisions of Early Childhood *(PAUDNI)*, Basic Education, Secondary Education and Human Resource Development. Some DEOs have additional divisions such as Youth and Sports, and/or Culture.

The structure, roles and responsibilities of the DEO are generally clear and are understood in most districts. Issues at this level relate mostly to the capacity and funding required to effectively carry out assigned responsibilities.

2.5.4 School Level

The decentralized education system also requires increased autonomy at school level. Schools are expected to have increased responsibilities for planning, implementation, monitoring and evaluating school programs and activities. They are also required to increase community participation by establishing school committees. The school-based management (*manajemen berbasis sekolah* or *MBS*) approach has now been adopted and institutionalized. *MBS* promotes student-centered learning, effective school management and community participation, particularly by establishing school committees. Although widely adopted and considered to be the most appropriate model, several challenges remain in implementing *MBS* nationwide (refer to the section below on *Capacity Issues* for more discussion of these issues).

Introducing school-based management or *MBS* as a facet of decentralization has also introduced a shift in the roles played by teachers, school principals, and the community. This has been particularly challenging for teachers, who have been expected to make the transition from a teacher-centered methodology to a student-centered approach. School principals have also been expected to become more autonomous managers, capable of longer-term planning, transparent financial management and providing effective support to and monitoring of teachers. Communities have been expected to become more involved in school management through their representatives on the school committee. These significant changes in roles have been constrained to some extent by limited understanding and capacity.

Table 4. Roles and Responsibilities of Central and Local Governments and Schools

Central Government / MoEC	Provincial Education Office	District Education Office	Schools
National regulation	Local regulation	Provide education services	School procedures and guidelines
Planning at macro level	Planning and budgeting	Local regulation	Planning and budgeting
Policies at national level	Coordination	Planning and budgeting	Learning process
Standardization	Facilitation of education development	Implementation of standards	Implementation of standards
Quality assurance	Quality assurance	Quality assurance	School procedures and guidelines

Source: Government Regulation (PP) No 17/2010 on Education Governance and Management (*Pengelolaan dan Penyelenggaraan Pendidikan)*

37 With the exception of most districts in Papua and West Papua provinces.

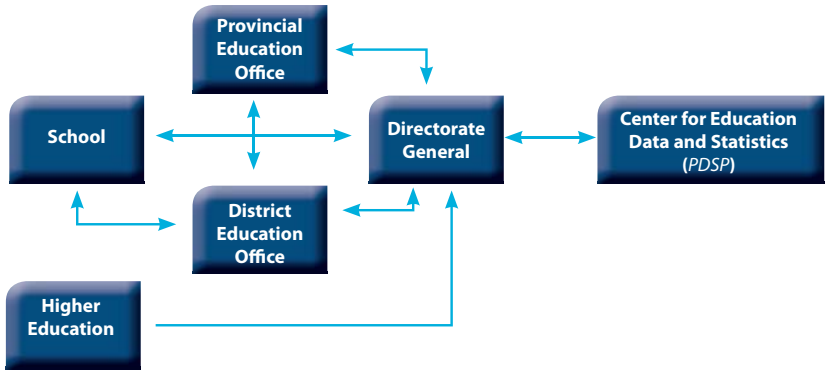
2.5.5 Information Management

Accurate information is critical for education monitoring, planning and policy-making. Systems in place under the centralized education system were put under pressure following decentralization, when annual data coverage of schools throughout the country reportedly dropped as low as 25% in 2001 and was still less than 50% by 2005.[38] MoEC has made significant progress over the past decade in improving EMIS systems and providing the infrastructure required to gather information effectively over a wide geographical area.

Before the 2012 restructuring of MoEC's organization and responsibilities, there were two main bodies responsible for EMIS within MoEC: the Center for Education Data and Statistics (*Pusat Data dan Statistik Pendidikan* or *PDSP*), which was responsible for developing data software, collection, and analysis, and the Center for Technology and Communication (*Pusat Teknologi dan Komunikasi* or *PUSTEKKOM*), which was responsible for ensuring that data was electronically transferred from districts and schools to the Ministry through the National Education Network (*Jejaring Pendidikan Nasional* or *Jardiknas*). The flow of data went from schools to District Education Offices and then to *PDSP* and vice versa for data verification.

Under the restructured system, the Center for Education Data and Statistics (*PDSP*), which was previously under the Board of Research and Development (*Balitbang*), was placed under the Secretariat General. Rather than holding *PDSP* responsible for gathering education data directly from districts, the DEOs are now responsible for sending their data, disaggregated by sub-sector, to the appropriate Directorate General within MoEC.

Figure 5. Flow of Data, Verification and Validation



Source: Ministerial Decree 1/2012 on Organization of Ministry of Education and Culture

Since the 2012 restructuring, *PDSP* no longer collects data directly from districts and now is more like an education data "warehouse". The task of data collection was transferred to each Directorate General, which gathers the relevant data from DEOs and sends it to *PDSP*. This shift represents a major change regarding the flow of data from districts to the Ministry. For data verification and validation, *PDSP* directly communicates with DEOs. The structural change regarding EMIS may create challenges at district level, which may result in data inconsistencies between the Directorates General and *PDSP*.

There are several constraints in implementing EMIS. First, data collection may not be on schedule, as many schools in remote areas need time to submit data to the DEO and many of them do not have access to the internet. Second, the capacity of district officials for using applications with different tools and processes is variable. Third, there is high turnover of officials in many districts; trained data management officials are often replaced by new staff. Fourth, in some districts there are no officials assigned exclusively for data management. Fifth, primary schools often lack administrative staff to assist with the process with data management conducted on an irregular basis by principals and teachers.

38 DBE 1. (2007). *EMIS Assessment: Special Report*. Jakarta.

In addition, at the national level, data analysis and presentation often lag a year behind schedule, as it takes time to verify data, particularly data submitted offline.

One aspect that has not yet been fully addressed is the use of school-level data for planning and monitoring, especially at school and DEO levels. There is a tendency for data to flow upwards to the center on request, but with limited use to be made of the data for school and district planning. There are also limitations in the quality and coverage of data, particularly in many new districts and in more remote areas, particularly at local levels remains limited.[39]

2.5.6 Capacity Issues

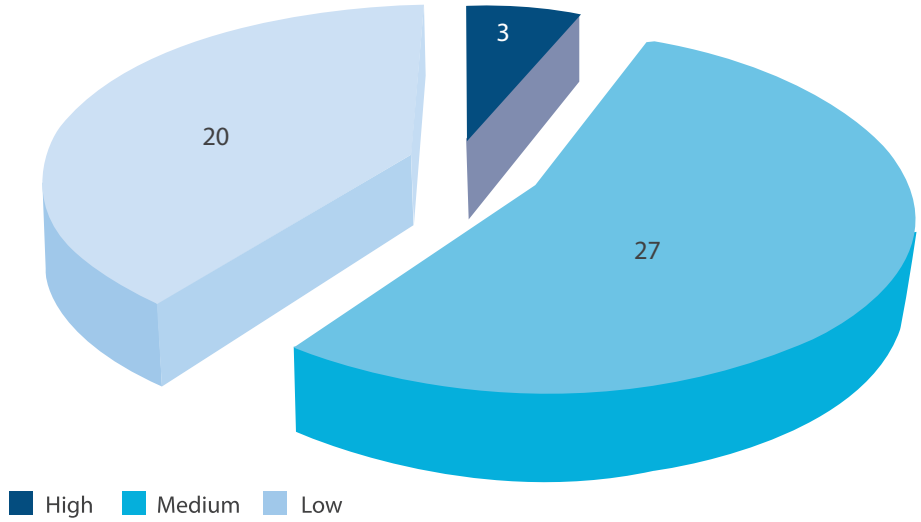
The shift of functions to lower levels within the system, in particular the devolution of governance and management functions to the district level, have created a number of challenges with respect to the capacity.

Local Government Capacity in Education Governance and Management

Whilst decentralization regulations are in place, together with a regulatory framework that both defines and mandates functions and structures, local governments' capacity to effectively manage and provide education services remains a concern.

A study conducted by the World Bank[40] on the capacity of local government, specifically DEOs in education governance illuminates this issue. The assessment used five strategic areas as the main indicators; transparency and accountability, education service standards, management control systems, information management systems, and efficient use of resources. The study results showed that out of 50 sample districts, only three districts (6.0%) could be classified as performing well (i.e. scoring above 60), 27 districts (54.0%) were classified as performing moderately well (i.e. score 40-60), and 20 districts (40.0%) were functioning poorly (i.e. score below 40). The average score for all strategic areas was only 42.8%.

Figure 6. Distribution of 50 Districts by Education Governance Capacity



Source: World Bank. (2010). *Indonesian Local Education Governance Index.*

39 DBE 1. (2007). *EMIS Assessment: Special Report*. Jakarta.

40 World Bank. (2010). *Indonesian Local Education Governance Index*. Jakarta.

This study suggests that although rules, mechanisms and procedures for education management and governance are in place, the capacity of local governments in implementing the five strategic areas is generally limited. Ten years after the decentralization of education, its implementation is still far behind expectations and there are wide variations in capacity among local governments. Management information systems are assessed as the weakest area of local government capacity.

Table 5. Local Education Governance Index

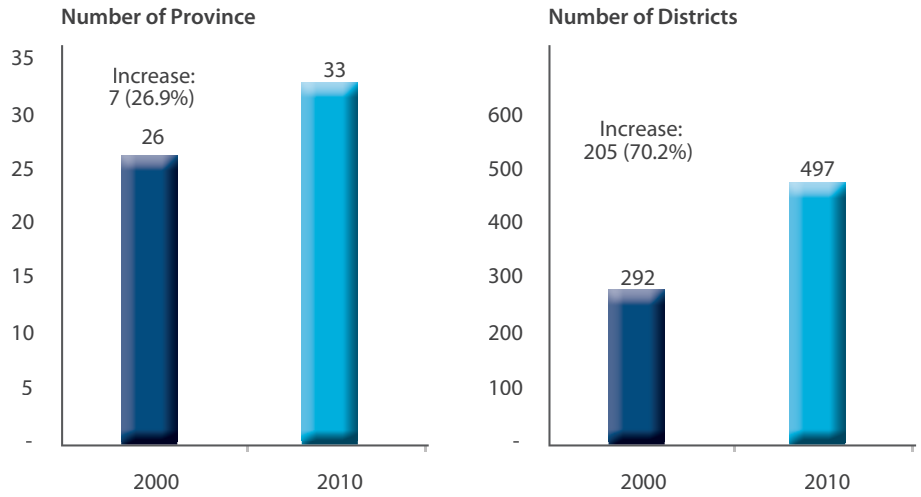
Strategic Areas	Average	Highest	Lowest
Transparency and accountability	42.9	63.1	3.6
Education service standard	49.7	80.8	18.9
Management controlling system	46.8	84.2	10.0
Management information system	32.8	77.5	4.6
Efficient resource use	42.0	72.5	10.8
All strategic areas	**42.8**	**62.0**	**19.1**

Source: World Bank. (2010). *Indonesian Local Education Governance Index*.

In the early stages of decentralization, local autonomy was sometimes manifested in the increasing number of local government regulations.[41] Many local governments issued regulations, which did not comply with, and were even contrary to, national regulations. As a result, the Ministry of Home Affairs revoked many problematic local regulations.

Forty one percent of all district governments are newly established and their capacity remains limited. Since the reform era and the promulgation of the local government Law, the number of provinces in Indonesia has increased from 26 to 33 and the number of districts has grown from 292 to 497.[42] Since the law granted district governments the authority to create new sub-districts and villages, the growing number of districts has been accompanied by a rapid increase in the number of sub-districts and villages.

Figure 7. Increasing Number of Provinces and Districts



Source: MoHA. (2010). *Rencana Strategis Ditjen Otonomi Daerah 2010-2014.*

41 Brodjonegoro, B. (2001). *Indonesian Intergovernmental Transfer in Decentralization Era: The Case of General Allocation Fund.* Paper presented at an International Symposium on Intergovernmental Transfers in Asian Countries: Issues and Practices Asian Tax and Public Policy Program. Tokyo: Hitotsubashi University.

42 Of that total, 492 areas are autonomous regions and 5 are administrative regions located in Jakarta.

School-Level Capacity

As noted, school-based management is still far from being fully adopted as intended. The main constraints are limited managerial capacity of principals and insufficient training of teachers.

Autonomy under decentralization requires schools to manage their own programs and finances, including *BOS* and school renovation. Unlike junior and senior secondary schools, primary schools do not have administrative staff, which creates a heavier workload for principals and teachers and reduces the amount of attention they can give to teaching and learning activities.

School committees exist as non-state institutions at school level, but the extent to which they are providing effective support and oversight is variable. In many schools, the committees do not function as intended and are used largely as signatories so that the schools can receive *BOS* funds. School committees are often reluctant to get involved in school management, as they have very limited capacity, do not know their exact roles, and have limited support from their schools.[43] In addition, in the broader context, local governments and DEOs tend not to regard developing the capacity of non-state education stakeholders as part of their role.

Overall, the process of decentralizing the governance and management of education has made significant progress over the past ten years. The national regulatory frameworks are now largely in place, and moves are underway to strengthen the process of implementation of decentralized education at the sub-national level. However, much remains to be done. Particularly, more work is needed in strengthening district- and school-level capacity to better manage education service delivery and in ensuring sufficient support and oversight to support this process.

2.6 Financing of Education

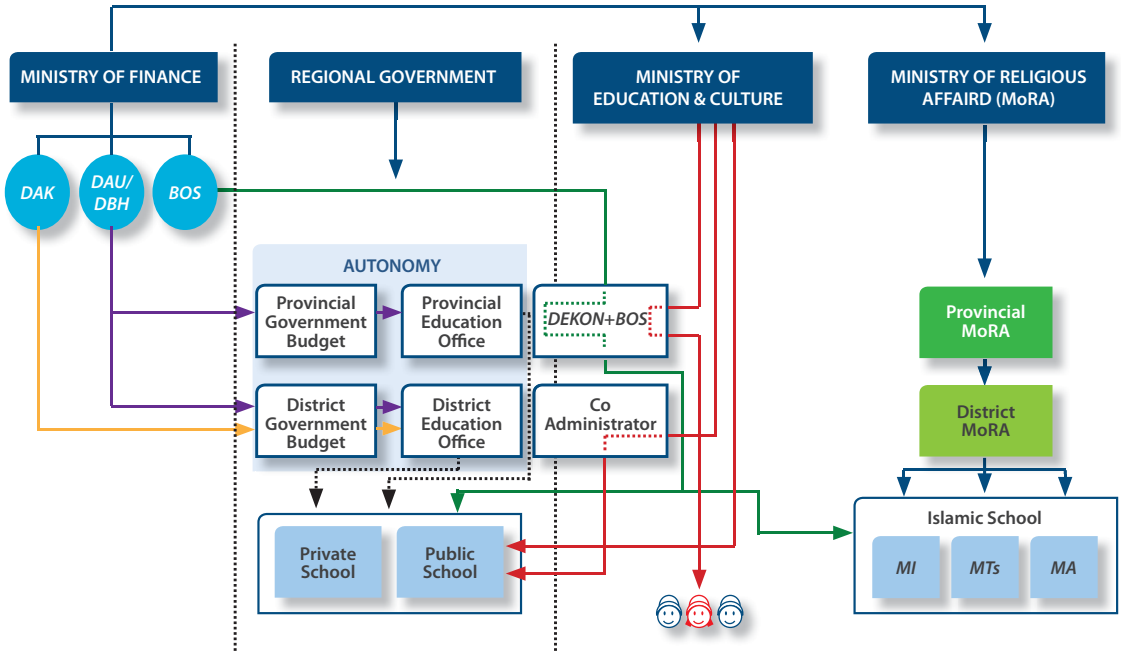
Under a decentralized education system, with many different actors operating at different levels of government, there is a strong need for well-coordinated funding to ensure that resources are spent in an effective manner. Over the past few years, the Indonesian Government has significantly increased the budget for the education sector. In 2012, 20.1% of the total national budget has been allocated for education. This section will focus on the financing of education: the different types of financing, how the funds are disbursed, how these funds are being utilized, particularly at district level, and some of the key challenges and issues involved. Section 1 provides a description of the funding mechanisms that are currently in place. Section 2 focuses on the total amount of funding that has been available for the education sector. Section 3 examines in more detail what is happening at the district level, while Section 4 highlights some of the key issues and challenges currently being faced in terms of education financing.

2.6.1 Funding Mechanisms

The education finance system is constructed of multiple layers through which funding from the central government budget (*APBN*) is transferred across government offices at central and regional levels. The following chart illustrates the funding mechanisms involved.

43 Vernez, G., Karam, R., Marshall, J.H. (2012). *Implementation of School-based Management in Indonesia*. Santa Monica, Arlington, Pittsburgh: RAND Corporation.

Figure 8. Education Funding Mechanisms from Central to School Level



Source: Elaboration based on various laws and regulations

Education sector funding originates at the Ministry of Finance, from where it is channeled to the different agencies involved in education. The main flows of funds are as follows:

Box 1. Funding Mechanisms

***DAU* – General Allocation Fund.** Block grant transfer from central government to regional governments (provinces and districts). The purpose of *DAU* is to balance financial capacity across regional governments. *DAU* allocation consists of a Basic Allocation plus a Fiscal Gap Allocation (i.e. the difference between fiscal needs and fiscal capacity of each regional government). A part of *DAU* is earmarked for teacher salaries and allowances.

***DBH* – Revenue Sharing Fund.** Natural resource revenue sharing between central and regional governments. Only districts with a revenue-generating natural resource base benefit from revenue sharing. Out of the total revenue, 0.5% is earmarked for the basic education sector (0.1% for provincial government and 0.4% for district government).

***DAK* – Special Allocation Fund.** Transfer from central government to district government, to be utilized only for non-salary expenditures. *DAK* is a proposal-based fund. There is a special guideline specifying *DAK* eligibility criteria. *DAK* funding is primarily used for school construction and rehabilitation and requires 10% counterpart funding.

***BOS* – School Operational Assistance.** School operational assistance allocated to schools on a per student basis. Over the years the government has been experimenting with different fund transfer mechanisms. In the period 2005 to 2010, *BOS* funding was directly transferred to schools from the national level. As it was felt that this was contrary to the spirit of decentralization, the government introduced a new system whereby funding was transferred to the districts, which would then channel funds on to schools. As this proved to be very complicated, in 2012 the government decided to implement a system of channeling funds from the central level to a unit of the Provincial Education Office (PEO) and from there directly to schools.

***Dekonsentrasi* – Deconcentration.** This funding originates from MoEC/*APBN*, is administered by Provincial Education Offices on behalf of the central government, and is used for activities such as coordination meetings, supervision, and capacity building.

Box 1. Funding Mechanisms (Continued)

***Tugas Pembantuan* – Co-Administration.** This funding originates from MoEC/*APBN*, is administered by District Education Offices on behalf of the central government and is spent on procurement of goods and school building construction and rehabilitation.

MoEC Direct Funding. This funding originates from *APBN* and is administered at the central level. Procurement takes place at the central level from where equipment and goods are sent directly to public and private schools (support in kind). MoEC also administers an Education Development Fund that can be used to respond to urgent needs as a result of national disasters or fund shortages as a result of unforeseen circumstances.

Provincial Education Office (PEO). Funding for the PEO originates in the provincial budget (*APBD*) and is administered by the Provincial Education Office. Support to schools can be provided in kind (procurement at the provincial level) or via school grants, for instance 'topping up' BOS.

District Education Office (DEO). Funding for the DEO originates in the district budget (*APBD*) and is administered by the District Education Office. Support to schools can be provided in kind (procurement at the district level) or via school grants, for instance 'topping up' BOS.

MoRA Funding. Religious Affairs is one of the government functions that has not been decentralized. Consequently, the Ministry of Religious Affairs has its own offices at the provincial and district levels and operates outside the regional government structure. Funding for Madrasah flows from the central level to the Ministry's provincial offices and from there onwards to its district offices and then to the madrasah.

Education sector funding is fragmented and has a variety of fund flow mechanisms, which may compromise transparency. Because of the complexity of education financing, it is difficult to accurately determine how much is spent on education, how much by level of education, and on what.

2.6.2 Education Sector Funding

The 1945 Constitution stipulates that every citizen has the right to education. To achieve this, the government is required to have a national education system in place. During the first decade of the 21st century, there was strong support in the House of Representatives to increase the budget allocation for education by setting a fixed percentage that should be achieved annually. Consensus was reached to allocate a minimum of 20% of the national budget (*APBN*) to education. However, the 2003 Law on the National Education System stipulated that the 20% should not include teacher salaries. In 2007, this was overruled by the Constitutional Court (verdict No. 24/PUU-V/2007), which mandated that teacher salaries would be an integral part of the 20% allocation. The government had difficulties in meeting the 20% requirement, but after a the Constitutional Court gave a final ultimatum in 2008, the House of Representatives decided to meet the 20% threshold and allocated this percentage of the national budget to education in 2009.

Over the past four years, the total funding for education from the national budget has increased substantially, from Rp 207.4 trillion (equal to US$ 23.6 billion) in 2009 to Rp 310.8 trillion (equal to US$ 35.3 billion) in 2012, which represents an increase of 49%. The estimate for 2013 in the draft budget is Rp 331.8 trillion (equal to US$ 37.7 billion).

Table 6. National and Education Budget 2009-2013 (Rp in trillions)

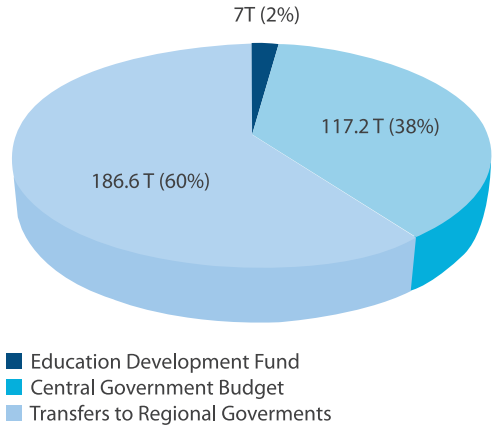
	2009*	2010*	2011**	2012**	2013***
Total Government Budget (*APBN*)	1,037.0	1,047.6	1,320.7	1,548.3	1,657.9
Education Budget	207.4	209.5	266.9	310.8	331.8
Percentage	20.0	20.0	20.2	20.1	20.0

Note: * Actual Expenditure; ** Mid-term Budget Revision; *** Planned Budget
Source: Laws on National Budget and Budget Revision (2009-2012) and Draft Budget 2013

In comparing Indonesia's spending on education with other ASEAN countries, Indonesia and Thailand are shown to allocate the largest share of national budget to education (20%) followed by Malaysia (18.9%), the Philippines (15%) and Singapore (11.6%). However, when expressed as a percentage of GDP, Malaysia (5.8%) and Thailand (4.1%) allocate a higher portion of GDP than Indonesia (3.5%), while Singapore (3.1%) and the Philippines (2.7%) allocate a lower percentage.

In 2012, of the total amount allocated for education, 40% was allocated to the national level, 60% transferred to the sub-national governments.

Figure 9. National Education Budget – Revision (APBN-P) 2012



Source: Republic of Indonesia. (2012). *Law No. 4 of 2012 on APBN-P.*

The following table shows fund flows to national level and transfers to regions from 2010 to 2012.

Table 7. Education Sector Budget 2010 – 2012 (Rp in trillions)

Description	2010			2011			2012	
	APBN	APBN-P	Realization	APBN	APBN-P	Realization	APBN	APBN-P
Total State Budget	1,047.7	1,126.1		1,229.6	1,320.8		1,435.4	1,548.3
Total Education Budget	209.5	225.2		248.9	266.9		290.0	310.8
Percentage of Education Budget	20.0	20.0		20.2	20.2		20.2	20.1
Central Government								
• Ministry of Education and Culture	54.7	63.0	59.2	55.6	67.3	n.a	64.4	77.2
• Ministry of Religious Affairs	23.7	26.5	24.5	27.3	30.4	n.a	32	33.4
• Other Ministries	4.8	7.0	7.1	6.8	7.7	n.a	6.2	6.6
Sub total Central Government	83.2	96.5	90.8	89.7	105.4	98.3	102.6	117.2
Transfer to Regions								
• BOS (School Operational Fund)	-	-	-	16.8	16.8		23.6	23.6
• DBH (Revenue Sharing Fund)	0.6	0.7		0.8	0.9		0.8	1
• DAK (Special Allocation Fund)	9.3	9.3		10	10		10	10
• *DAU* (General Allocation Fund)	112.7	112.7	0	126.5	126.5		147.3	147.3
- Teachers' Salary	95.9	95.9		104.3	104.3		103	103
- Non-teachers' Salary	n.a	n.a		n.a	n.a		10.8	10.8
- Teachers' Professional Allowance	11.0	11.0		18.5	18.5		30.6	30.6
- Additional Teachers' Allowance – PNS	5.8	5.8		3.7	3.7		2.9	2.9

Description	2010			2011			2012	
	APBN	APBN-P	Realization	APBN	APBN-P	Realization	APBN	APBN-P
• DID (Regional Incentive Fund)	1.4	1.4		1.4	1.4		1.4	1.4
• Dana Otonomi Khusus	2.3	2.3		2.7	2.7		3.3	3.3
• Other Transfer	0.0	1.3		0.0	0.6			
Sub Total Transfer to Regions	126.3	127.7		158.2	158.9		186.4	186.6
Education Development Fund	0.0	1.0		1.0	2.6		1.0	7.0

Source: Republic of Indonesia. (2010 – 2012). Various laws on *APBN* and *APBN*-P 2010 – 2012.

At the national level, there are three main spending agencies: the Ministry of Education and Culture, which takes up around 66% of total education spending; the Ministry of Religious Affairs, at around 28%; and a group of other ministries, around 6%. This latter group comprises 18 ministries that provide technical, ministry-specific education and training for their current and future staff (for instance, nurse training provided by the Ministry of Health).

Transfers to the sub-national level consist of the following: School Operational Assistance (*BOS*), Revenue Sharing Fund *(DBH)*, Special Allocation Fund (*DAK*), General Allocation Fund *(DAU)*, and Regional Incentive Fund.

Over the period 2010 to 2012, the relative share of spending at the central level has decreased from 43% in 2010 to 35% in 2012. This decrease has been caused by the sharp increase in fund transfers to the regions, which are primarily concerned with increases in *BOS* funding and professional allowances for certified teachers. It is important to note that these fast-growing spending categories are recurrent expenditures. As there are still around 1.9 million non-certified teachers, it is clear that the amount allotted for teacher allowances will increase substantially in the years to come.

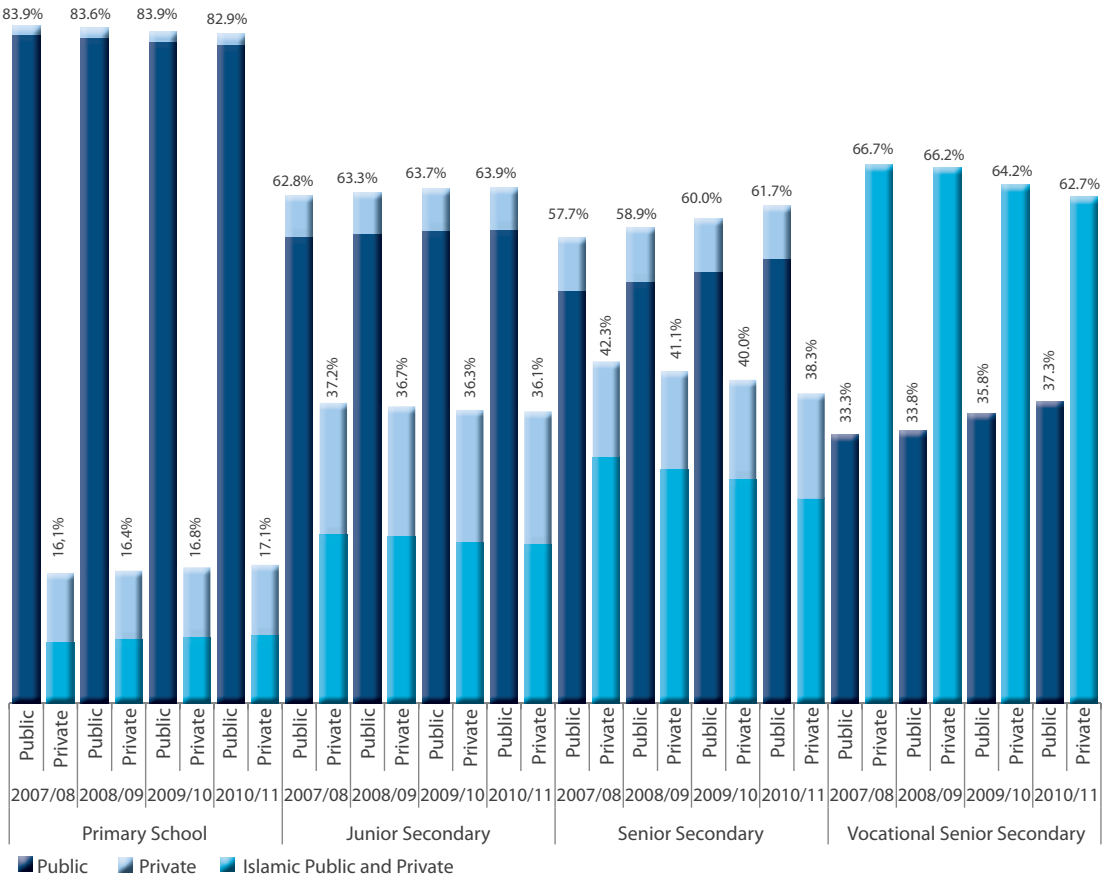
2.6.3 Issues and Challenges in Education Finance

Support for Private Education Institutions

As noted, the education system is comprised of general public, general private, faith-based public and faith-based private education. At the primary level, public provision is dominant. 83.2% of students attended public education in 2009/10. At the junior secondary level, private enrollments accounts for 63.7% and the senior secondary level, 60.0%. At all levels, the distribution between public and private provision has remained more or less stable over the period 2007/08 to 2009/10.

From the total 50.3 million students attending primary, junior and senior secondary education, 36.9 million attend public schools (73.4%) and 13.5 million attend private schools (26.8%). Not surprisingly, the largest allocation of funding goes to public education provision. However, in 2011 the Constitutional Court redefined the government's obligation with regard to community-based education and ruled that the government must provide support to community-based education institutions that provide basic education. The Court also ruled that the government's obligation remains unchanged at the senior secondary level, which means that although the government can provide support to community-based institutions that provide senior secondary education, it is not required to do so. Evidently, the Constitutional Court decision will have major implications for education sector financing and further public debate is needed to determine the level of public funding that community-based education institutions providing basic education are entitled to receive.

Figure 10. Ratio of Students in Public and Private Schools (2007/08 – 2009/10)



Source: MoEC. *Ikhtisar Data Pendidikan Nasional 2007/08 – 2009/10.*

Education Workforce Planning

The Civil Servant Administration Agency (*BKN*), together with the Ministry of Administrative and Bureaucratic Reform, has the authority to determine the number of civil servants that can be recruited by each district. Their decision is made on the basis of requests made by the districts for new staff.

Civil servant salaries are funded from the General Allocation Fund *(DAU)*, which the districts receive from the central government. Because this grant automatically increases according to the number of new staff hired in the previous year, districts tend to inflate their requests for new personnel as the costs will be met by the central government.

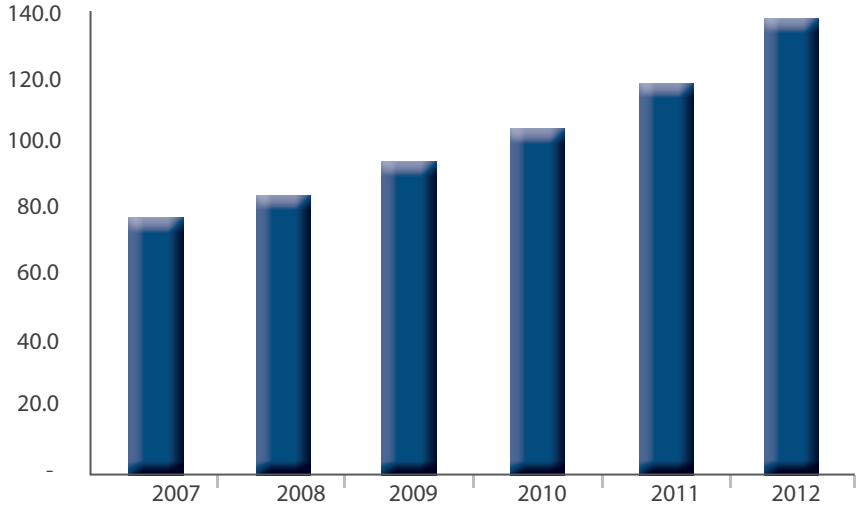
Conversely, if the district reduces the number of staff, the *DAU* will decrease the next year. The *DAU* formula therefore provides incentives for districts to request for new personnel. This suggests the need for standards and systems to evaluate requests made by the districts and inclusion of incentives and disincentives in the *DAU* to rationalize staffing numbers.

In this context, it is important to note that Indonesia has one of the lowest Student/Teacher Ratios (STR) in the world (refer to Chapter 6, Section 6.2, *Teacher Supply and Teacher Deployment* for more discussion of this issue), which suggests that there is a need for more efficient utilization of the teacher workforce.

Significant Increase of Teacher Salaries and Allowances

The Teacher Law of 2005 addresses the issue of teachers' welfare by introducing (i) a professional allowance that is equal to base salary for certified teachers, (ii) a functional allowance of 10% of base salary for all teachers, and (iii) a special allowance that is equal to base salary for teachers who are working in hardship/remote areas. As a result of these new allowances, spending on teachers has increased substantially. Furthermore, spending will continue to increase in the years to come as a consequence of the government policy that all teachers will have to be certified. In 2012, the government spent Rp 136.5 trillion (equal to US$ 15.5 billion) on teacher salaries and allowances, which represents 47% of the total education budget.[44]

Figure 11. Increase in Government Spending on Teacher Salaries and Allowances after Enactment of Teacher Law 2005



Source: Ministry of Finance. (2012). Directorate General of Budgeting.

This increase has major implications for education spending, particularly at the district level and on the funding available for education development.

Decrease of Discretionary Spending at District Level

The aim of decentralization is to ensure that education provision is in accordance with local priorities and needs. To do so, the district government must have funding available after meeting its obligations for salary payments and other necessary recurrent spending. The balance can then be used for discretionary spending, which is determined by the District House of Representatives on a yearly basis according to its priorities.

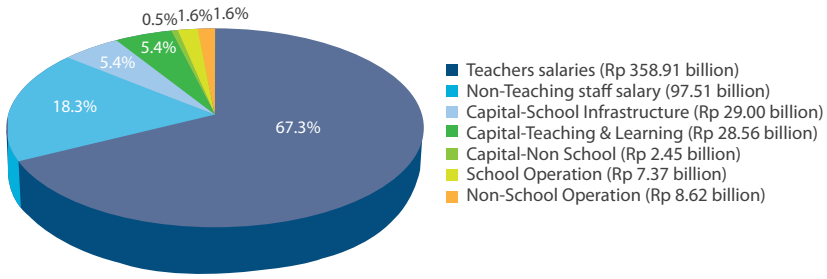
The commitment of district governments to education is evident in the portion of their budgets (*APBD*) allocated to the education sector. Financial analysis has shown[45] that a majority of districts allocate 30% to 40% of their funding to education and that around 80-85% of this is used for teacher and non-teacher salaries. This means that the balance available for non-salary spending on such items as school operations and support for the teaching and learning process in accordance with local priorities is limited.

44 MoEC. (2012). *Postur Anggaran Kemendikbud.*

45 Undertaken by Decentralized Basic Education 1 (DBE 1) project.

Because the teacher certification program will lead to increased spending on teacher salaries and allowances in the years to come, districts' discretionary spending is likely to decrease. This may increase districts dependency on initiatives undertaken and support provided by higher levels of government for education development. In some districts, it has been found that non-salary spending decreased despite there being an increase in the budget for education.
The following case study illustrates the nature of this issue by providing a more detailed breakdown of education expenditures in Tuban District, East Java Province.

Figure 12. Education Spending – Tuban District



Source: DBE1. (2011). *Analysis of Education Finances, Tuban District, 2010-2011.*

Box 2. Education Funding at District Level – The Case of Tuban District

Although Tuban District's budget for education increased in 2011 by Rp 31.34 billion (equal to US$ 3.56 million), almost the entire increase was used for higher spending on teacher salaries and allowances. In other districts, non-salary spending decreased despite an increase in the overall budget for education.

85% of education sector funding in Tuban District is being used for teacher and non-teacher salaries. Once essential routine spending (for instance, office operational costs) is added to this, the balance remaining for education development in accordance with local aspirations and needs is very small.

Limited Information on School Needs

The current fund allocation system makes it difficult to obtain a complete picture of how money is being spent, where the spending shortfalls are located, and how to allocate funding for schools in an efficient and equitable manner. To date, planning and budgeting is focused more on the needs of the organizational units within the education hierarchy (from district to central level) than on the needs of the schools – where learning takes place.

The *BOS* program, which began in July 2005, has accelerated the achievement of the nine-year compulsory education program and in particular has expanded access to basic education for children from economically disadvantaged families. Since 2009, the government has changed the objective, approach and orientation of the *BOS* program from expanding access to improving quality. Similarly, the disbursement mechanism was changed from one that made transfers directly to the districts/cities in 2011 to one that makes transfers to the provinces in 2012.

To free up funds for purposes related more directly to quality, consideration should be given to discontinuing the use of *BOS* funds for payment of the salaries of teachers who have been directly hired by the schools.[46]

The *BOS* program, with its per pupil allocation, forms a good starting point for calculating the unit cost needed to provide students with quality education. Through DBE 1 project analysis of school operating

46 Refer also to *Chapter* 2.5 for more description and discussion of the impact of *BOS* funding.

costs in around 100 districts were fed into policy processes and resulted in additional fund being allocated to schools. In addition, recent analysis shows that the per capita *BOS* formula is inadequate to cover costs in small schools.[47] These analyses provide potential approaches and lessons for improved resources allocation to schools.

Implementation of the Free Education Campaign

The government started its free education campaign (*Sekolah Gratis* or free schools) in July 2005 to achieve nine years of compulsory basic education as mandated by the 2003 Education Law. Parents often assumed that the government would cover all the costs for education and in some cases this reduced the level of community participation in education. To address this issue, the government had to redefine what it would fund, what the community could fund and reintroduce the idea of voluntary contributions.

It is worth noting that regardless of the extent to which the government provides free education, education is never free. Parents always have to bear the 'hidden' costs of their children attending school. Hidden costs include items such as transportation, uniforms, shoes, snacks, school bags, pencils and notebooks. A personal cost survey estimated that the amount per primary school student is around Rp 1.6 million (equal to US$ 181.8) per year, and around Rp 2.4 million (equal to US$ 272.7) for a junior secondary student.[48]

Schools receiving *BOS* funding are required to display a specific banner declaring that the school is providing free education for all students.[49] A survey by *BAPPENAS* and *IPB* suggests that school committees in West Java feel that the free school campaign makes parents reluctant to contribute towards costs. Yet, the government is unable to cover all school operational costs.[50] To address this issue, some schools have taken dramatic action by rejecting the free school funding/BOS offered by the government. In their view, they will gain more resources by charging parents tuition than by taking the *BOS* funding from the government.[51] This is not the case for schools in poorer remote communities, which have benefitted from having an operating budget for the first time ever (as ability to pay school is limited).

An Effective System for Expenditure Tracking Is Needed

Under a decentralized education delivery system, education spending takes place through a variety of mechanisms operating at different levels of government. The situation in Indonesia is particularly complex, as the country has two more or less separate education systems (MoEC and MoRA). To obatin a clear picture of actual spending on education, an effective system for expenditure tracking is needed. This system should provide integrated information detailing how each level of education is spending the budget. This information is needed for policy purposes, for assessing the effectiveness of interventions, for accounting for the use of resources, and for ensuring that schools will have the required funding. Although the Ministry of Finance's District Finance Education System (*Sistem Informasi Keuangan Daerah* or *SIKD*) is a helpful source of information on spending at the district level, it does not provide the integrated information needed.

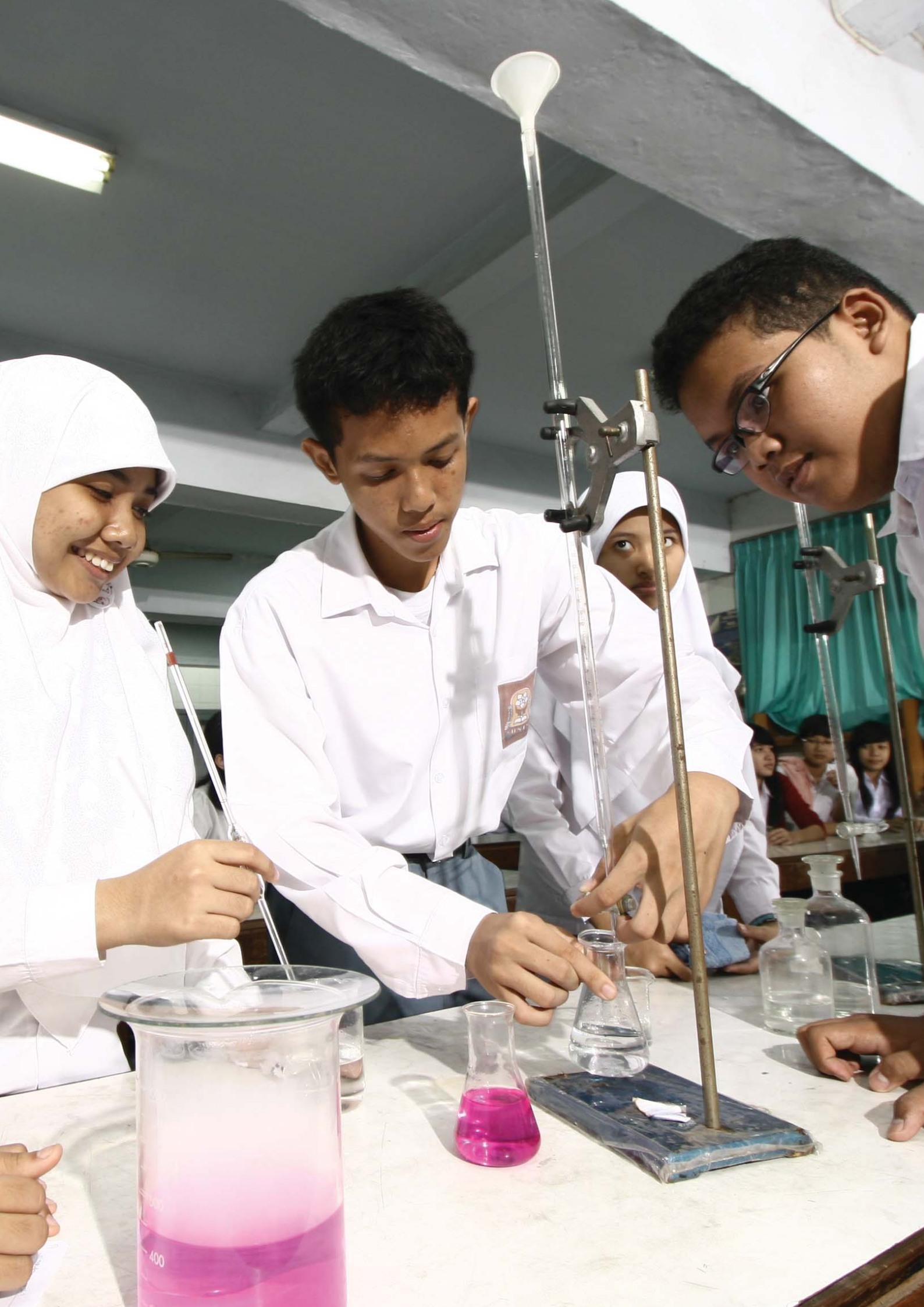
47 ACDP, 2012, *Analysis of BOS.*

48 DBE 1 (2010). *Survei Biaya Personil Kabupaten Pasuruan.*

49 The "Free Schooling" banner stipulation is detailed in Ministerial Regulation N0 51, 2011, *Peraturan Menteri Pendidikan dan Kebudayaan* No 51 2011, Lampiran 1. MoEC, 2011. Sample of actual banner can be seen in the MoEC website http://bos.kemdikbud.go.id/home/artikel/8

50 BAPPENAS and IPB. (2009). *Survei Kepuasan Orang Tua Terhadap Pelayanan Pendidikan Dasar Oleh Sistem Desentralisasi Sekolah*. Jakarta.

51 Kompas accessed on 17 July 2012.*Banyak Sekolah Tolak Pendidikan Gratis*. http://edukasi.kompas.com/read/2011/12/29/08564047/Banyak.Sekolah.Tolak.Pendidikan.Gratis.



Chapter 3
Pre-Tertiary Education

Formal pre-tertiary education in Indonesia covers a range of sub-sectors, from early childhood education through to senior secondary education. Pre-tertiary education also takes a variety of forms, including public and private, Islamic and non-Islamic, vocational and academic, and formal and non-formal. While this chapter focuses largely on formal education, non-formal education, including school equivalency packages (*Paket A, B, C*), literacy, and the Islamic boarding school system (or *pesantren)* is also included. This chapter will examine the five main formal education sub-sectors below tertiary level: ECD, basic education, senior secondary education (including general academic and vocational), special needs education, and non-formal education.

3.1 Early Childhood Development (ECD)

The main reason for developing early childhood interventions is the belief that the period from zero to six years[52] is considered to be the 'golden age'[53] for child development, which determines the quality of human capital for the future, and contributes to an improvement in social, health, and economic conditions and opportunities. ECD programs that comprehensively address children's basic needs such as health, nutrition, and emotional and intellectual development, foster the development of capable and productive adults. Early interventions can change the lifetime trajectories of children, especially those who are born poor or are deprived of the opportunities for growth and development available to children who are more fortunate.[54] Having almost achieved universal access to primary education, policymakers in Indonesia have shifted their attention to the development of early childhood education [55] and beyond that, to a more holistic and integrated perspective on education that includes the physical, social, and intellectual development of a child from 0 – 6 years.

52 While current literature on early childhood includes children aged 0-8 years, the Indonesian Government definition of 0-6 years will be used here.

53 Kompas. (2012). MoEC – Muhammad Nuh. Jakarta. Published on 2 May 2012.

54 See Mary Eming Young (ed), *From Early Child Development to Humans Development,* World Bank, 2002.

55 There are a range of acronyms used to describe this subsector, including ECD, ECCD, ECE, ECECD and others. For the sake of brevity and consistency, particularly with the term used by BAPPENAS, the term ECD will be used throughout this chapter, with the understanding that it encompasses education, development and care of children in their early years from the ages of 0 – 6 years.

3.1.1 Overview

Much of the ECD sub-sector is located outside the formal sectors of education and health and has not been a priority focus in the past. Furthermore, despite the development of a regulatory framework at national level, ECD has grown in a largely unregulated manner. This is largely because ECD is mainly community or private-sector based with limited resource allocation.

The purpose of early childhood education and development (ECD) interventions in Indonesia is twofold: (i) to develop behavioral competencies (religious, moral, social, emotional, and self-reliance) and (ii) to develop basic skills (physical, psycho-motor, cognitive, language). Learning processes are age-group specific (0-2, 2-4 and 4-6 years) and learning methods are based on the principle of learning through play. Although early childhood education is not mandatory for entry to primary school, an increasing number of parents have become aware of the importance of this type of education and therefore send their children to ECD institutions or activities. Although in Indonesia this sub-sector focuses on children 0 to 6 years old, international organizations such as UNICEF, UNESCO, and NAEYC (National Association for the Education of Young Children) define children aged 0-8 years as the ECD target group. By expanding the age range of the target group (7-8 years), these IOs have emphasized the transition to learning that occurs in the early grades of primary education. In Indonesia, the transition phase for children aged 7-8 years is developed in Grades 1-3 of primary education through early grade learning. The current budget allocation for ECE, at 1.2 percent of the education budget, is also well below the international benchmark of 4-5 percent.[56]

Regulatory Framework

The current regulatory framework for ECD in Indonesia includes laws, guidelines and strategies developed by different government agencies, including MoEC, *BAPPENAS*, and the Ministry of Health. The framework also includes planned guidelines under the Coordinating Ministry for the People's Welfare.

Law 20 of 2003 on the National Education System states that early childhood education targets children from birth to the age of six by providing educational stimuli to promote the growth and physical and mental readiness required for further education. The Law distinguishes three types of programs, namely:

- Kindergarten (*Taman Kanak-kanak* or *TK*) and *Raudhatul Athfal* (or RA) for Islamic early childhood education, which is managed by the Ministry of Religious Affairs for children in the 4 to 6 age group;
- Play Groups (*Kelompok Bermain* or *KB*) *and* Child Care Centers (*Tempat Penitipan Anak* or *TPA*) for children in the 2 to 4 age group; and
- Integrated Care Centers (*Pos Pelayanan Terpadu, Posyandu*), which integrate health and care services for children aged 0-6 years.

In addition to those listed above, there are early childhood education institutions associated with non-Islamic faith-based institutions.

In 2005, *BAPPENAS* coordinated the development of the National Strategy for Holistic- Integrated ECD. MoEC has also developed a *Grand Design for the Development of ECE in Indonesia (2011-2025)*. In addition, Law no. 36 (2009), which covers health, requires that local governments and communities provide safe and secure places where children can play and develop. However, a more cohesive, coordinated and clearly defined regulatory framework is still needed at the national level. Table 8 below highlights the diversity of programs and the number of government agencies involved in oversight and governance of ECD in Indonesia.

56 UNICEF. (June 2012). *Early Childhood Development: Ensuring All Children's Right to a Fair Start in Life.*

Table 8. Profile of Key Early Childhood Services in Indonesia

Type of Program	Responsible Government Agencies	Target	Age	Focus	Hours	Teacher Qualification	Setting
TK (Kindergarten)	MoEC (PAUDNI)	Child	4 to 6 years	School readiness	2 hours daily	2-year teacher training college diploma (*D2*)	School
RA (Islamic Kindergarten)	MoRA	Child	4 to 6 years	School readiness and religious teaching	2 hours daily	2-year teacher training college diploma (*D2*)	School
KB (Playgroup)	MoEC & Min. of Social Welfare	Child	2 to 6 years	Play-based education, mental and emotional development	2 hours, 3 time / week	At least senior secondary graduate with job related training	Community center, home based school
TPA (Childcare)	MoEC & Min. Social Welfare	Child	3 months to 6 years	Care services for children of working parents (some providers add pre-primary education component)	8-10 hours / daily	At least senior secondary graduate with job related training	Centre near residential area or office blocks
Posyandu (Integrated Health Service Post)	Min. of Home Affairs, Min. of Health, National Population and Family Planning Board (*BKKBN*)	Child and mother	0 to 6 years	Health service for mother and child, parenting education	2 hours, 2 times / month	Midwife, nurse, community, facilitators	Community center, mostly in rural area or villages
BKB (Parent Education Group)	*BKKBN* and Min. of Women Empowerment	Mother	0 to 5 years	Parenting education, activities for children	2 hours, 2 times/ month	Community facilitators	Home, village facility, *Posyandu*

Sources: UNESCO. (2005). *Policy Review Report: Early Childhood Care & Education in Indonesia* and World Bank. (2005). *Early Childhood Education & Development in Indonesia.*

Coordination among the several stakeholders involved at different levels is a key challenge, particularly in the 0-4 age group. Indonesia is not alone in this respect – many countries within the region and elsewhere lack holistic, integrated services that address all aspects of early childhood development and many also experience sector-based compartmentalization of different aspects of children's services, which can lead to fragmented delivery.[57]

Further regulation will also help to standardize roles and job titles within ECD. Currently, a different job title is used for each type of ECD intervention. For example, while community-based ECD consists of 'supervisors', 'officials' and 'caregivers', other types of ECD consist of 'principals', 'teachers' and 'supervisors'. In the area of Curriculum and Training, there are 'instructors' and 'managers'. In addition, many primary school supervisors (inspectors) also act as kindergarten supervisors and thus are often called 'primary school-kindergarten supervisors' *(Pengawas TK/SD)*.

57 UNESCO and UNICEF. (2012). *Early Childhood Care and Education, Asia-Pacific End of Decade Notes on Education for All.* Paris.

3.1.2 Trends, Key Issues and Challenges[58]

The past decade has seen significant growth in the ECD sub-sector. However, there are still a number of key issues and challenges in the delivery of ECD services, including:

- Lack of more specific and relevant technical guidelines for ECD and overall coordination at the national and sub-national level;
- Inadequate understanding of ECD and the existing regulatory framework as well as limited commitment at sub-national level;
- Limited qualifications and competence of those directly responsible for implementing ECD programs;
- Lack of local coordinating mechanisms; and
- Lack of data, particularly related to ECD programs outside the formal kindergarten system.

Issues do not only concern educators, facilities and infrastructure, but also questions of learning approaches, content, and the way in which the different components of early child development (health, child care, protection, nutrition and educational development) should be integrated.

Expanding Participation

After the government began to more actively promote early childhood development programs, the number of children involved in ECD activities increased dramatically: GER for ECD is currently 34.5% (2011/12)[59].

Parents' awareness of the importance of ECD interventions has increased demand and has been the major driving force for the expansion of ECD participation rates. As a result, the number of early childhood institutions has significantly increased. For example, the number of *TK* and *RA* institutions more than doubled in the period 2000/01 to 2010/11 from 41,746 to 93.644. The number of teaching staff also increased sharply – nearly four times – in the same period. Much of this growth has been driven by the for-profit private sector, catering to the rapidly expanding urban middle class.

With regard to early childhood development affiliated to MoRA, in 2010/11 there were 24,318 Islamic Kindergartens, called *Raudhatul Athfal* (*RA*) or *Bustanul Athfal* (*BA*), serving 998,658 students. The contribution of *RA* students to the total number of kindergarten students was 24.6%, slightly up from 23.1% in 2004/05.

Despite increases in the number of children involved in some kind of ECD activity, there are still large numbers of children needing to be reached. Hawadi stated that "*.....approximately 15 million children aged 0-6 years are not participating in any early child development program, while the government has set a target of at least 75% of the 30.2 million children in the 0-6 age group who will be served by early childhood education programs by 2014. It will be difficult to achieve this target.*"[60]

Regional Disparities

Participation rates for early childhood education have increased rapidly over the past ten years, but the problem of disparity among regions remains. As Figure 13 below indicates, in 2011/12 the gross

58 Identified from a range of sources, including review of secondary data, Draft Inception Report (ACDP 001 *Early Childhood Development Strategy Study*, January 2012) as well as interviews with officials of the Minis try of Education and Culture. Several of these issues were also raised in the 2012 Annual National Discussion on Education (*Rembug Nasional Pendidikan*)

59 This measurement includes kindergarten, playgroup and childcare services for the 0-6 age group. Note that GER cannot be compared with earlier years because the measurement had previously included a form of Quranic education that had artificially inflated the measurement (including through double-counting).

60 Hawadi, L. F. (2012). *15 Juta Anak Usia 0-6 Tahun Belum Terlayani* in Kompas, 2 May 2012.

enrollment rate (GER) for kindergarten education in 24 out of 33 provinces was below the national average (34.5%). The gap between the highest rate (58.6% in Yogyakarta) and the lowest rate (18.1% in Papua) was very wide at 40.5%. Provinces in Eastern Indonesia, in particular, had low enrollment rates.

Figure 13. GER of Kindergartens by Province (2011/12)

Source: MoEC. (2012). *Buku Indikator Kunci Keberhasilan 2011/12.*

A lack of data at national level on non-formal ECD, particularly community-based programs such as play groups, childcare centers and integrated health centre (*Posyandu)*-based ECD activities presents challenges in planning and resource allocation.

National Level Guidelines and Coordination of ECD

A National Strategy for Holistic-Integrated ECD and general guidelines exists, as do guidelines within each ministry and national government agency for ECD programs under their responsibility. However, more specific guidelines are still needed, to cover all aspects of ECD and improvement in coordination at the national level. Currently, the Minister of Social Welfare, in cooperation with MoEC, MoRA and other relevant agencies, is in the process of developing guideline. In addition, MoEC is currently developing minimum service standards for early childhood education in 2012.

Challenges at the Sub-national Level

In addition to the lack of understanding of ECD policy and regulations, as well as limited coordination at the district level, there are also limitations in terms of the qualifications and competency levels of staff responsible for implementing and monitoring these programs. For example, most early childhood educators do not meet the qualifications as specified in the existing regulations and technical guidelines. Because of a lack of standardized training programs, competencies vary widely among early childhood educators. In addition, many local governments authorize the establishment of new early childhood education institutions without clear criteria and standards. Some institutions operate without having an official license.

Need for Improved Data Management

Collecting and managing data on early childhood development institutions and programs is challenging. In particular, data on playgroups and child care centers as well as the *Posyandu* program is limited. Most local governments have never collected or updated data on ECD institutions and programs, numbers of children or educators on a regular basis.

Timely and accurate data and information is needed to plan, map, monitor and supervise implementation of ECD programs. Within MoEC, Early Childhood Education has been placed higher in the organization, at Directorate General level. This shift may provide an opportunity to develop an effective information system as an integral part of the Ministry's overall management information system.

3.2 Basic Education

Over the past decade, Indonesia has made considerable progress towards achieving the Education for All goals related to free and compulsory primary education, transition to junior secondary, gender equity and quality improvement.

However, although nationally, net enrollment rates are quite high at 95.5% and gender parity in basic education has been virtually achieved, there are significant regional disparities, particularly in Eastern Indonesia. The EFA Mid-Decade Assessment Report also emphasized the need to improve the quality and relevance of education.

3.2.1 Overview

Basic education in Indonesia is divided into two levels: primary school (six years) and junior secondary school (three years). Each level consists mainly of formal education, though this sub-sector also now includes non-formal education (out-of-school equivalency programs) through Package A (primary level) and Package B (junior secondary level).[61] Formal education at the two levels is provided by a combination of public and private schools under the responsibility of MoEC, and Islamic schools (*Madrasah Ibtidaiyah* or *MI* and *Madrasah Tsanawiyah* or *MTs*), under the responsibility of the Ministry of Religious Affairs.

Public schools make up the majority of primary schools – 79.8%, of which only 1.0% are state-owned Islamic *madrasah*. The remaining 20.2% of primary schools are either privately run *madrasah* (12.3%) or non-Islamic faith-based or for-profit schools (7.9%) (refer to Table 10 below).

Table 9. Basic Education in Indonesia by Level, Type, Status and Formal/Non-form

Level	Formal		Non Formal
	General	Islamic	
Primary	• SD (public and private) • Special Needs Schools	*MI* (public and private)*	Package A
Junior Secondary	• SMP (public and private) • Special Needs Schools	*MTs* (public and private)*	Package B

Table 10. Number/Percentage of Primary Schools by Type (2010/11)

Public/Private	General		Islamic		Total	
Public	133,406	78.8%	1,745	1.0%	135,151	79.8%
Private	13,398	7.9%	20,782	12.3%	34,180	20.2%
Total	**146,804**	**86.7%**	**22,527**	**13.3%**	**169,331**	**100.0%**

Source: MoEC. *Ikhtisar Data Pendidikan Nasional* 2010/11.

As Table 11 below shows, there were a total of 30,662,441 children enrolled in primary schools in 2010/11. Of this total enrollment, 82.9% were enrolled in public schools (both general and Islamic), and 17.1% were enrolled in private schools.

61 Refer to Section 3.6.1 *School Equivalency Program* for more detail on this program.

Table 11. Number of Students in Primary and Junior Secondary (2010/11)

Level	Type	Schools		
		Public	Private	Total
Primary	General (SD)	24,995,754	2,584,461	27,580,215
	Islamic (MI)	413,618	2,669,058	3,082,226
	Total Primary	25,409,372	5,253,519	30,662,441
Junior Secondary	General (SMP)	7,000,077	2,346,377	9,346,454
	Islamic (*MTs*)	622,285	1,964,821	2,587,106
	Total Junior Secondary	7,622,362	4,311,198	11,933,560
Total Primary and Junior Secondary		**33,031,734**	**9,564,717**	**42,596,001**

Source: MoEC. *Ikhtisar Data Pendidikan Nasional 2010/11*.

At junior secondary school level, there were a total of 11,933,560 children enrolled in 2011. Of this total enrollment, 63.9% were enrolled in public schools (both general and Islamic), and 36.1% were enrolled in private schools.

Regulation 47/2008 states that the government shall implement a compulsory free education policy, including primary and junior secondary education as well as non-formal education programs (school equivalency Packages A and B). To increase the availability and affordability of education services, the government has implemented several programs. These programs function to establish new school units, rehabilitate classrooms, and develop one-roof (*satu atap*)[62] schools. They also provide school operational assistance (*Bantuan Operasional Sekolah* or *Dana BOS*), scholarships for poor students,[63] and other forms of student support.

School Operational Assistance (*BOS*)

The *BOS* scheme, introduced in 2005, has had the largest impact at school level across the country. Since August 2005, the government has provided *BOS* funds for primary and junior secondary schools. In 2010/11 the *BOS* program covered around 43 million students in 216,191 public and private primary and junior secondary schools and madrasah. In 2012, the government allocated Rp 23 trillion (US$ 2.5 billion) for *BOS* funding. In 2013, *BOS* will be provided to senior secondary schools. Coverage is based on the number of enrollments in each school year.

The impact this has made on increasing access has been significant. In 2009, the gross enrollment rate (GER) for children from disadvantaged families at primary school level increased to 93.8%. At the junior secondary level, *BOS* has helped raise GER for poor children from 52% in 2006 to 59% in 2009. *BOS* has also helped raise the grade passing rate from 50% to 55% during the same period.[64]

The provision of *BOS* funds for school operational costs has perhaps been the most significant policy initiative (other than decentralization itself) over the past seven years. The *BOS* funding policy has increased the funds available for school operational costs. This increase has been particularly valuable for schools in poorer, more remote areas, which previously often lacked any operational budget at all.

However, a study has indicated that *BOS* has also decreased community participation in education due to parents' perception that *BOS* covers all costs. Although schools have received *BOS* funds, parents are still often asked to make other financial contributions, particularly for school infrastructure, equipment[65] and extracurricular expenses.[66]

62 Hartati, S. (2011). *Warta PAUDNI, Edisi VII 2011*. Dirjen PAUDNI. Jakarta.

63 In 2012, the government allocated a total of Rp 3.9 trillion (approximately US$ 443.18 billion) for around 14 million students from disadvantaged families. (MoEC, 2012)

64 BPS (2011). SUSENAS survey.

65 DBE 1. (2011). *The Impact of BOS on Parents' Education Costs*. Jakarta.

66 Badan Penelitian dan Pengembangan Pemerintah Provinsi Kalimantan Timur. (2007). *Laporan Penelitian Dampak BOS*

In 2012, the amount of *BOS* funding per student per year increased from Rp 397,000 to Rp 580,000 (equal to US$ 45.11 to US$ 65.9) per primary student and from Rp 570,000 to Rp 710,000 (equal to US$ 64.8 to US$ 80.7) per junior secondary student. Although the amount provided per student is the same for each school throughout the country, minimum operational unit cost varies among regions. The current amount allocated per student may be sufficient for schools in Java, but not for schools in more remote areas like Maluku and Papua where costs are higher. In addition, recent[67] analysis finds that funding provided solely through the per capita formula is insufficient to meet the required costs of smaller schools with fewer classes and students. In short, *BOS* funding is necessary and valued, but it is not sufficient for schools in certain areas and with certain characteristics.

One Roof Primary and Junior Secondary Schools

A key component of both MoEC and MoRA's strategic plans is the establishment of combined (one-roof) primary and junior secondary schools. This has been an important strategy for increasing equitable access, particularly in remote areas. But doing so does not guarantee the quality of learning provided, as teachers in many one roof schools are primary school teachers. Most of these teachers have only a two-year primary school teacher training (*PGSD*) degree and lack competency in certain subjects for junior secondary schools.

School Rehabilitation

This program has made a significant contribution to improving learning environments in schools. The program has helped to strengthen school-based management, since the refurbishment process has been self-managed by the schools with the involvement of school committees and parents.

3.2.2 Trends, Key Issues and Challenges

The past decade has seen a number of positive trends within basic education in Indonesia, particularly in terms of improving access to both primary and junior secondary education, and in improving quality in some areas. At the same time, gaps persist and much remains to be done to fully achieve *Renstra* targets and EFA goals by 2015. This section will examine several key areas including access, transition and dropouts, regional differences and aspects of education quality.

Access and Enrollments

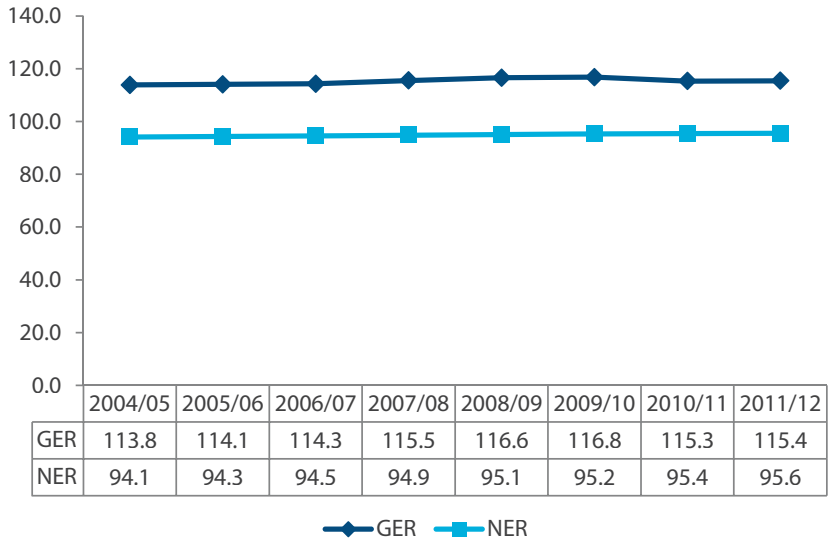
Indonesia has increased the availability and affordability of basic education over the last decade. In line with the nine-year compulsory basic education policy, Indonesia has almost achieved universal access to primary level and significant increases in enrollments for junior secondary level. However, achievements mask regional and socio-economic disparities, which will be explored in more detail later in this section.

Primary level: The primary enrollment rate has gradually increased from a relatively high base rate in the 1980s, when the Suharto government established a policy of major school construction (*SD Inpres*). The policy of the Suharto government responded to the dramatic increase of the population aged 7-12 years as a result of the 'baby boom' in the 1970s.

Terhadap Peningkatan Mutu dan Pemerataan Pendidikan. Samarinda

67 ACDP, 2012. *Analysis of BOS*.

Figure 14. GER and NER for Primary School (2004/05 - 2011/12)



	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
GER	113.8	114.1	114.3	115.5	116.6	116.8	115.3	115.4
NER	94.1	94.3	94.5	94.9	95.1	95.2	95.4	95.6

Source: MoEC. *Buku Indikator Kunci Keberhasilan 2004/05 – 2011/12.*

This is reflected in both the net enrollment rate (NER) for primary level, 95.5% in 2011/12, as well as the gross enrollment rate (GER), 115.4% for the same year. While showing some positive change, net and gross enrollment have been relatively stable over the past decade (refer to Figure 14 above[68]). While it would appear that Indonesia is on track to achieve the *Renstra* target of an NER of 96% for primary level by 2014, the leveling off of both NER and GER is probably due to the difficulty in ensuring access for all children, particularly those in remote mountainous or island communities.

In terms of gender equity in primary enrollments, the UNESCO 2011 Global Monitoring Report calculated the gender parity index (GPI) for primary school level at 0.97. The calculation indicates that overall, the opportunity to obtain and complete primary education is almost equal for boys and girls at this level. However, disparities do exist in some areas, particularly in Eastern Indonesia.

Junior Secondary Level: There has been a significant increase in junior secondary enrollment as a result of the 'Nine-Year Compulsory Education' program, initiated by the government in 1994.

Key programs introduced include new school construction, 'one roof' (*satu atap*) combined primary and junior secondary schools, development and rehabilitation of classrooms, Islamic junior secondary schools or *madrasah*, boarding schools, and non-formal education through school equivalency Package B. Between 2000 and 2009, there was approximately a 44% increase in the number of junior secondary schools (refer to Table 12 below). Provision of School Operational Assistance funding (*BOS*) to junior secondary schools since 2005 and subsidies for poor students have also contributed to a significant increase in enrollment rates.

Table 12. Number/Types of Junior Secondary Schools (2000, 2005, 2011)

School Type	2000	2005	2011
Junior Secondary Schools	20,719	23,853	30,290
Madrasah Tsanawiyah	10,365	12,498	14,787

Sources: MoEC, *Ikhtisar Data Pendidikan Nasional 2000, 2005, 2011.*
MoRA, *Buku Statistik Pendidikan Islam 2000, 2005, 2011.*

68 The figures for primary include public schools (SDN), MI, private schools, Special education schools (SDLB), and Package A.

Increases in enrollments can be seen in the increase in NER for junior secondary level. From 58.6% in 2001 to 77.7% in 2012, the NER comes close to achieving the *Renstra* target of 76.8% by the end of 2014. Improvements are also reflected in the GER, which increased from 76.1% in 2001 to 99.5% in 2012.

Islamic schools: The contribution of *madrasah* education in Indonesia towards nine-year compulsory basic education is considerable. Furthermore, *madrasah* mostly serves poor rural communities. A report from an ADB study in 2006[69] states that 84% of *madrasah* students come from families with incomes below the poverty line. In 2010/11, at the primary level, there are 22,527 *Madrasah Ibtidaiyah* (MI) serving 3,082,226 students (10.1% of the total enrollments for primary) all over the country. Of these MIs, only 1,745 (7.8%) are Public *madrasah,* serving 413,168 students. Similarly, at junior secondary school level, there are 14,022 *Madrasah Tsanawiyah* (*MTs*) serving 2,587,106 students. Out of these *MTs* only 1,467 (9.9%) with 622,285 students are public *madrasah,* the remainder being largely owned and managed by Islamic foundations.

The Islamic education sector has also introduced the primary and junior secondary equivalency packages through Islamic boarding schools (*pondok pesantren*). In the 2010/11 school year, 16,978 students studied primary equivalency Package A in 311 *pondok pesantren* and 20,315 students studied junior secondary equivalency Package B in 494 *pondok pesantren* (for more information on *pesantren*, refer to Section 3.6, Non-Formal Education).[70]

Over 90% of *madrasah* are private or community-managed and thus receive less public support. Limited resourcing provides challenges in terms of the quality of basic education in the Islamic education sub-sector. The enactment of the Teachers and Lecturers Law sets the minimum standards for teacher qualifications. Data from MoRA indicates that the number of under-qualified teachers in *madrasah* is high, at 62% for primary and 35% for junior secondary schools. Because many *madrasah* are private or community-owned and are under-resourced (and thus unable to attract a sufficient number of suitably qualified teachers), they are characterised by underqualified teachers, and also a mismatch between teachers' qualifications and the subjects they are required to teach.[71]

International comparisons: In terms of moving towards EFA goals by 2015, the Global Monitoring Report (UNESCO, 2012), which uses the Education for All Development Index (EDI), found that Indonesia reached 0.938. Indonesia's current status places it within the medium range, ranking 64th out of 120 countries.[72] Among neighboring ASEAN countries, Indonesia ranked higher than the Philippines and Cambodia but lower than Brunei Darussalam and Malaysia.

Transition Rates

While the overall transition rates from primary school to secondary school are higher than they were six to seven years ago, large numbers of children still do not continue their studies beyond primary level. Data for the 2009/10 school year shows a transition rate from primary to junior secondary schools of 88.2%. This translates into more than half a million children who did not continue to junior secondary school.

For junior secondary school, the transition rate to senior secondary school has tended to fluctuate. The rate increased from 2004/05 to 2005/06 but then decreased in 2006/07; it then increased considerably

69 ADB. (2006). *Report and Recommendation of the President to the Board of Directors: Madrasah Education Development Project (Project Number: 37475)*, pp. 55-56. Jakarta.

70 MoRA. (2010). *Buku Statistik Pendidikan Islam*. Jakarta.

71 While this is a wider issue across the basic education sub-sector, it would appear to be particularly pronounced in Islamic schools, perhaps due to the difficulty they have in attracting qualified teaching staff.

72 The Education for All Development Index (EDI) is a composite index using four of the six Education for All goals, selected on the basis of data availability. The four goals are universal primary education, adult literacy, quality of education and gender. Source: www.unesco.org

in 2008/09, and then decreased in 2009/10. While the reasons for this fluctuation are unclear, it may be due to the fact that several provinces failed to submit data in that year.[73]

Dropout rates

Reported dropout rates for the primary and junior secondary level are relatively low, at 1.5% for both, although this does not account for over 600,000 children in 2010/11.

Data from SUSENAS (2011) suggests that, not surprisingly, children who drop out tend to come from families with lower socioeconomic status. This data shows that 64.4% of children aged 7 to 12 years and 50.0% of children aged 13 to 15 years who were not going to school were from the poorest family income quintile (see Table 13 below).

Table 13. Percentage of Dropout Students by School Level and by Income Quintile

Income quintile	Primary	JuniorSecondary
Quintile 1 (poorest)	64.4	50.0
Quintile 2	17.8	22.1
Quintile 3	5.2	12.3
Quintile 4	8.2	9.3
Quintile 5 (richest)	4.4	6.3
Total	100.0	100.0

Source: BPS. (2011). Calculated from SUSENAS.

Geographic Disparities

Although primary and junior secondary participation rates continue to rise, there are still disparities between provinces, especially in more remote and underdeveloped areas, as well as within provinces and districts. As the figures below for NER by school level and province show, there are 17 provinces (51.5%) with a net enrollment rate for primary school that is below the average national rate. 15 provinces (45.5%) are below the average rate for junior secondary schools. For primary schools, the gap between the highest rate (Bali) and the lowest rate (Papua Barat) is about 9.1%. The gap for junior secondary schools is much greater, from 93.3% in DKI Jakarta to 62.5% in Papua. Most of the provinces that fall below the national rate are located in the eastern part of Indonesia. Unavailability of school facilities in remote and difficult areas in Eastern Indonesia, and high rates of teacher absenteeism in some areas, may be among the main reasons for these low NER rates.

73 Centre for Education Statistics and Data, MoEC (various years)

Figure 15. NER for Primary School (2010/11)

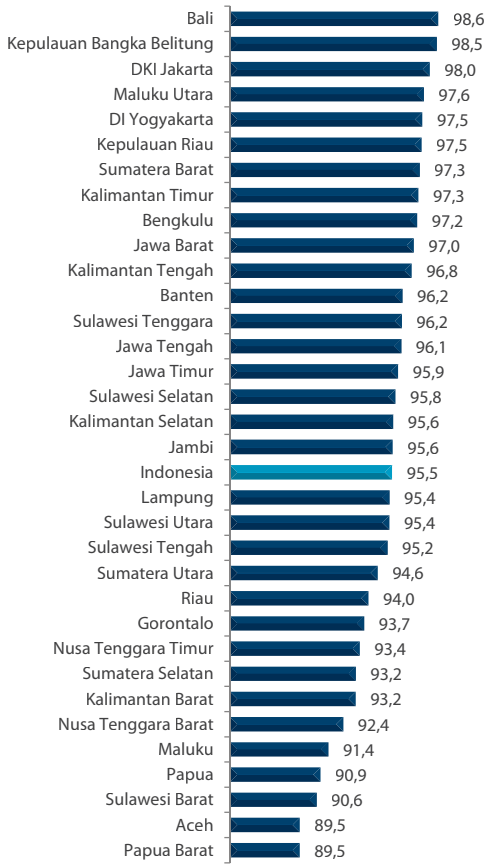
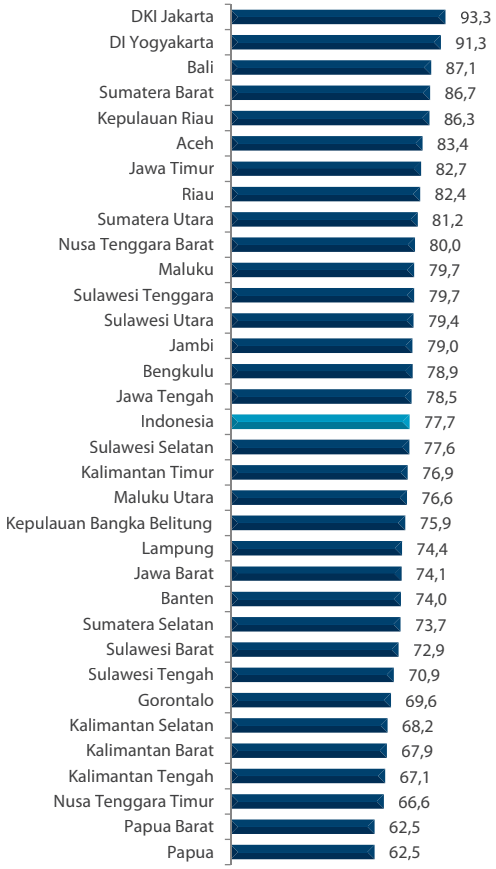


Figure 16. NER for Junior Secondary School by Province (2010/11)



Source: MoEC. *Buku Indikator Kunci Keberhasilan 2010/11*.

Teacher Qualification and Distribution

In terms of teacher/student ratios, MoEC data shows that class sizes have decreased over the past decade from 1:22 in 2000/01 to 1:17 in 2008/09 for primary level. Over the same period, class sizes for junior secondary school have decreased from 1:15 to 1:13. However, these figures tend to mask a wide range of student/teacher ratios, and are perhaps more an indicator of inefficiency than of quality (refer to *Chapter 5. Teaching and Learning* for a more in-depth discussion of this issue).

In terms of quantity, Indonesia currently has a large number of basic education teachers, but several critical issues remain: teachers often have inadequate qualifications, and there are uneven distributions of teachers and inefficient teacher-student ratios. Teacher competency is perhaps one of the most challenging issues facing Indonesia's education system.

Based on the highest education level completed, only about 26.8% of primary school teachers have the minimum requirement of a bachelor degree. The situation is better in junior secondary schools, where 76.2% of teachers hold a bachelor degree. In practice, the educational qualification of teachers does not guarantee better learning. Competency of teachers is still low; recent data shows that on average, teachers' competency score is only 44.5.[74] Furthermore, unequal distribution of teachers leads to a quality gap between urban and rural areas. Teachers generally tend to (and prefer) to be posted in urban rather than rural areas, and thus the more remote schools are often understaffed.

74 Based on data of 373,415 teachers who took a teacher competency test, Minister of Education and Culture Muhammad Nuh, *Kompas*, 4 August 2012

To address the challenge of unequal distribution of teachers, the central government has issued a Joint Ministerial Decision. Ministries involved in the decision include Education and Culture, Religious Affairs, Home Affairs, Finance, and Public Employee and Bureaucratic Reform. The main statement in this decision is that the central government may distribute teachers across provinces; provincial governments may distribute teachers across districts; and district governments may distribute teachers within their area. In actuality, this decision is administratively difficult to implement, as all civil servant teachers are district employees, recruited locally, and receive salaries paid by the district governments. Furthermore, massive teacher redistribution is challenging and costly not just administratively, but also socially and psychologically (refer to *Chapter 6. Teacher Management*, for more discussion of this issue).

Applying Standards and Assessing Outcomes

Challenges to improving the quality of education are not only related to teacher qualifications and competency, but also to other aspects such as curriculum, learning processes, assessment, availability of learning resources, and quality assurance systems. The central government has established minimum service standards[75] for basic education to try to ensure a minimum standard of quality across all schools. The standards require local governments to provide an appropriate number of certified teachers, learning facilities, curriculum and systematic quality control. Schools are also required to provide a minimum number of learning hours and learning outcome targets, a minimum number of textbooks and reference books for students, learning assessment, school-level curriculum development, and effective school management and community involvement. Furthermore, there is a set of eight education standards[76] that need to be met in order to ensure quality education (refer to *Chapter 2* for more detail on standards).

There is no national map showing the extent to which these standards are being met at both district and school levels. This makes it difficult for the government to identify and address quality-related areas in basic education. While the national examination results are one indicator of quality learning outcomes (refer to *Chapter 5 Teaching and Learning* for more discussion of this issue), other means of assessment also need to be used, particularly global comparisons of learning outcomes such as PIRLS, PISA and TIMSS.[77]

3.3 Senior Secondary Education

Senior secondary education (SSE) takes a variety of forms in Indonesia, including formal, non-formal, and informal. Formal SSE consists of general senior secondary schools (*SMA*) and vocational senior secondary schools (*SMK*), as well as Islamic senior secondary schools (*Madrasah Aliyah* or *MA*). Non-formal SSE is offered through senior secondary equivalency Package C (*Paket C*), which is equivalent to *SMA*. This section focuses mostly on *SMA* and *MA*, though reference is made to *SMK* in regard to gender equity (*SMK* is discussed in more detail in the following section on vocational education).

3.3.1 Overview

The past decade has seen significant growth in the SSE subsector, marked by increases in enrollments, the establishment of new schools and increases in teaching staff. Changes in management of SSE have also been significant over the past decade, with direct responsibility for provision of SSE services (other than Islamic schools) moving to the district level under decentralization.

75 Ministerial Decree 15 of 2010 on Minimum Standards Service for Basic Education at District Level.

76 Content standards, Process standards, Graduate competency standards, Teacher standards, School facility standards, Education management standards, Funding standards, Assessment standards

77 International measures of learning outcomes such as PIRLS, PISA and TIMSS show that Indonesia is still below the global average.

At the central level, responsibility for SSE, whether public or private, falls largely under the responsibility of the Directorate General for Secondary Education at MoEC, while responsibility for senior secondary Islamic schools or *Madrasah Aliyah* fall under the Directorate of Madrasah at MoRA. At the district level, SSE is managed directly by the Department of Secondary Education within the District Education Office.

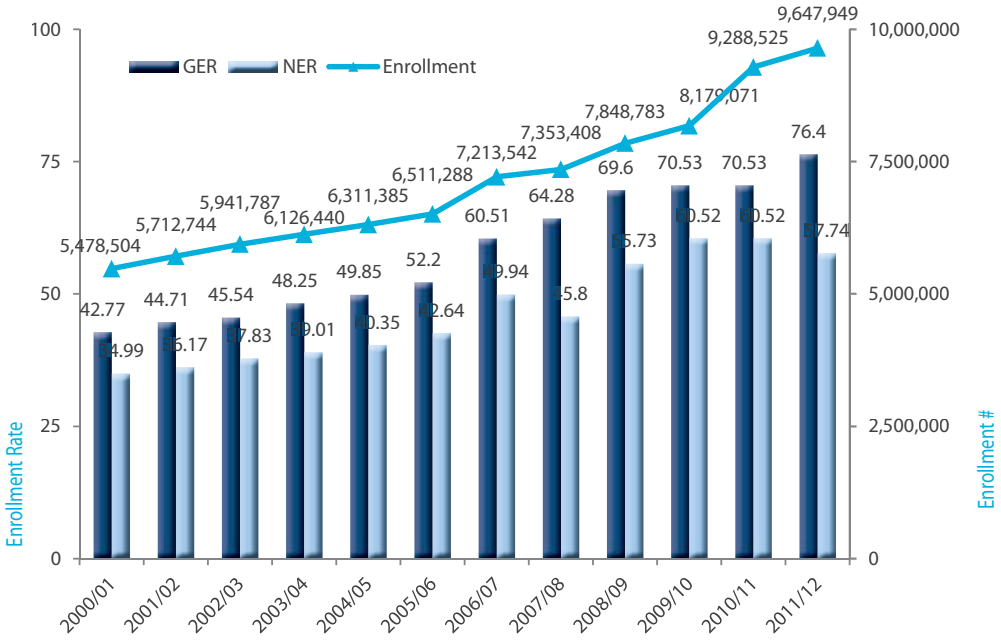
While the past decade has seen significant expansion of SSE, private senior secondary schools have continued to dominate the sub-sector in terms of numbers of schools, though not in terms of numbers of students. Islamic schools (*Madrasah Aliyah*), which comprise 34.83% of SSE schools at this level, are largely (approximately two thirds) managed by foundations and thus classified as private.[78] While accounting for approximately 70% of senior secondary schools, privately run schools tend to have much lower enrollments than public schools. For example, while private schools make up 70% of the number of institutions, they have only about 50% of the total number of students enrolled in SSE. At the same time, approximately 58% of the teachers teach in private schools, suggesting possible inefficiencies in terms of class sizes and student/teacher ratios.

3.3.2 Trends, Key Issues and Challenges

Increased Access to SSE

The past decade has seen a major expansion in access to SSE, marked by increases in the numbers of schools established, enrollments, and the numbers of teachers. For example, in the decade between 2000/2001 and 2011/12, the number of private and public senior secondary schools throughout Indonesia doubled from 12,415 to 26,896. Over the same period, total enrollments increased by 82% and the number of SSE teachers nearly doubled (from 342,443 to 571,591). There have also been steady improvements in both net enrollment and gross enrollment rates. GER has increased from 42.8% in 2000/2001 to 76.4% in 2011/12, and NER has increased from 35.0% to 57.7% during the same period.[79] Although the government aims for universal access to SSE by 2015 (*Rembug Nasional Pendidikan 2010*[80]), the current GER of 76.4% makes, achieving this within three years appear to be unlikely.

Figure 17. Gross and Net Enrollment Rate and Enrollment Number Growth, Senior Secondary (2000/01-2011/12)



Source: MoEC, *Buku Indikator Kunci Keberhasilan 2000/01 – 2011/12.*

78 MoRA. *Statistik Pendidikan* 2009/2010.

79 Figures taken from MoEC data, 2000 - 2010

80 A formal national level consultative meeting

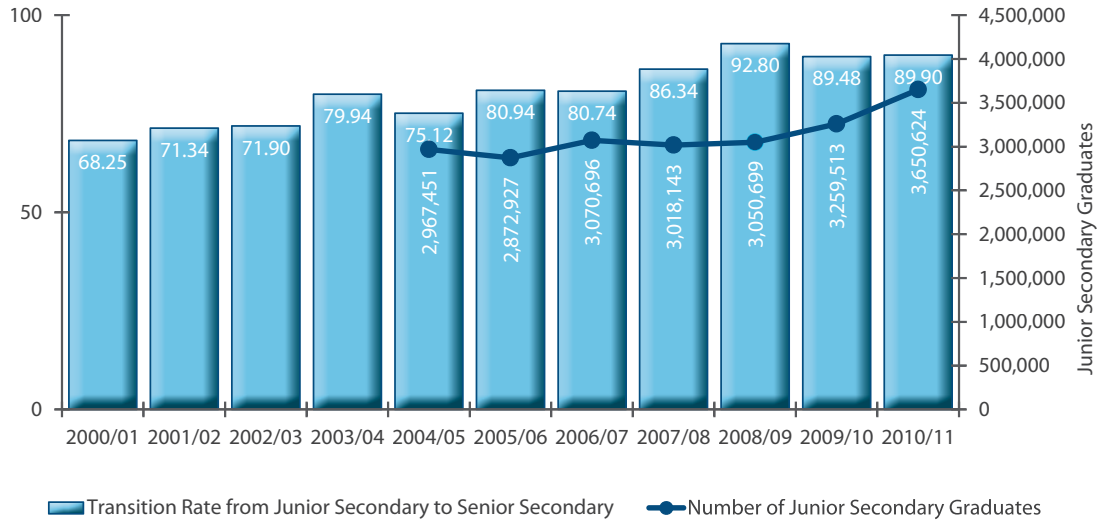
Table 14. Changes in Numbers of Institutions, Students and Teachers (2000/01 – 2004/05 – 2010/11)

School Type	2000/01	2004/05	2010/11
Public SSE	3,668	4,793	8,550
Private SSE	8,747	9,771	18,346
Public + private SSE	**12,415**	**14,564**	**26,896**
Public students	2,301,234	2,636,305	4,544,046
Private students	2,571,217	2,930,378	4,300,249
Public + private students	**4,872,451**	**5,566,683**	**8,844,295**
Public teachers	152,988	191,365	313,289
Private teachers	189,445	238,470	258,302
Public + private teachers	**342,433**	**429,835**	**571,591**

Source: MoEC, *Ikhtisar Data Pendidikan Nasional 2000/01, 2004/05, 2010/11.*

Increasing enrollments in basic education has led to subsequent increases in transition rates between junior secondary school and senior secondary school, from 68.3% in 2000/01 to 89.9% by 2010/11. This increase has been accompanied by a rapid expansion in the number of schools and teachers at the SSE levels (see Table 14 above) and has resulted in a significant growth in capacity of the SSE sub-sector during the decade.

Figure 18. Number of Junior Secondary Graduates and Transition Rate (2000/01-2010/11)



Source: MoEC. *Ikhtisar Data Pendidikan Nasional 2000/01 – 2010/11.*

At the same time, despite this expansion, the average level of educational attainment is still relatively low. The average number of years of education of an Indonesian citizen aged 19 years (the age when a person should complete senior secondary school) and older was only 7.98 in 2010, which is the equivalent of reaching the second year of junior secondary school. Ongoing efforts to increase access to SSE will contribute to increasing the average number of years of education and will better position the country to derive maximum benefit from the 'demographic dividend'.[81]

81 The demographic dividend, which relates to the ratio of young and elderly to working age, should result in significant savings to the government, particularly with a better educated workforce

Public vs. Private Senior Secondary Education

The public school system appears to be more efficient than the private school system, from the perspective of both student to school ratio (SSR) and student to teacher ratios (STR). In terms of student to school ratio, the public school system, with 8,000 schools, are serving more students than the private system, which has double the number of schools but almost the same number of students. The SSR in the private system is 235 students per school, while the SSR in the public system is around 513. In terms of STR, the public system also appears to be more efficient than the private system. While the public system has an STR of 14 for *SMA* and 13 for *SMK*, the private system has an STR of only 10 and 9 for *SMA* and *SMK* respectively (2009/10).

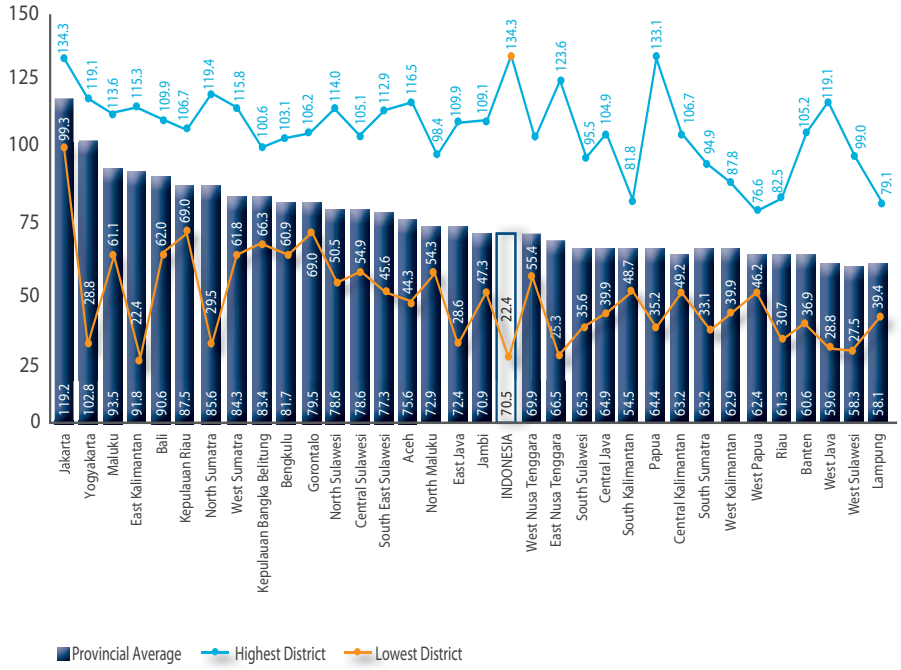
Entrance to most private senior secondary schools is not the first preference of many of the students, who often enter only after failing to reach the level required to enter public senior secondary schools by the national examinations. Those who fail to get a place in public schools, and therefore enter private secondary schools, tend to have lower academic achievement.

In terms of relative growth, public SSE is developing at a more rapid rate in terms of school establishment (218% between 2000/01 and 2009/10, while for private SSEs, the figure was 198%) and enrollment of students (178% and 158% respectively). However, private SSE saw greater growth in the numbers of teachers employed, with an increase of 221% over a ten-year period and as compared to 200% in public SSE.

Geographic Inequalities

The significant expansion of SSE services over the past decade masks regional disparities and major differences across provinces. For example, as Figure 19 below indicates, the GER at the provincial level varied from 119.2% in DKI Jakarta to only 58.04% percent in Lampung.

Figure 19. Variation of SSE Gross Enrollment Rates across Provinces and Districts (2010/11)



Source: MoEC. *Buku Indikator Kunci Keberhasilan 2010/11*.

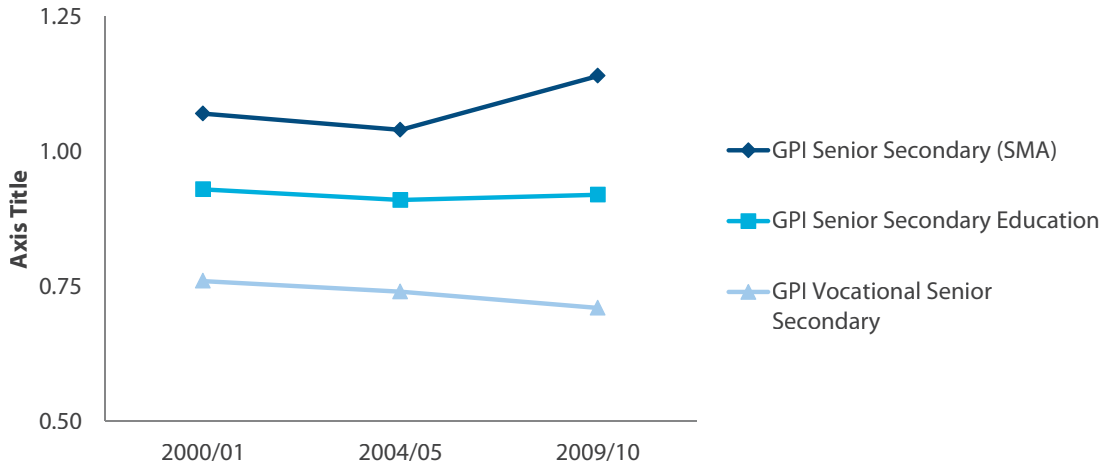
While the differences may not be so marked in terms of overall provincial GER, a closer look at the district level reveals significant gaps in access to senior secondary education between districts (refer to Figure 19 below). A comparison of GER across 460 districts shows considerable variation, from as low as 22.4 % to 134.3%. Seven provinces have districts with a GER below 30%.

While Eastern Indonesia is typically regarded as lagging behind in terms of most education-related indicators, the GER for SSE suggests that the problem is more wide spread. The 15 provinces that have a GER below that of the national level are distributed almost evenly between Java and the western regions on one hand, and the eastern regions on the other. This suggests that the regional 'divide' (i.e. between Eastern Indonesia and the rest of the country), which is usually assumed, may not be applicable in the case of SSE enrollments.

Gender Inequality

The gender parity index (GPI) of SSE indicates that there has been little change over the past decade - the figures for female enrollments were 0.93 in 2000/01 and 0.92 in 2009/10.[82] A closer look at the different streams of SSE, however, reveals that females are in fact well represented in senior secondary schools. For example, the GPI for females at general senior secondary school or *SMA* level increased from 1.07 to 1.14 between 2000 and 2010. However, overall figures include the GPI for vocational schools or *SMK*, where the ratio of females to males has actually declined over the past decade (from 0.76 to 0.71). While there appears to be no 'hard data' to explain this decline, it may be related to the fact that many of the courses offered in *SMK* are regarded to relate to male-dominated occupations and that *SMA* courses are seen as more appropriate for females.

Figure 20. Gender Parity Indices (GPI) – Senior Secondary



Source: MoEC, *Ikhtisar Data Pendidikan Nasional 2000/01, 2004/05, 2009/10.*

Efficiency of Senior Secondary Education

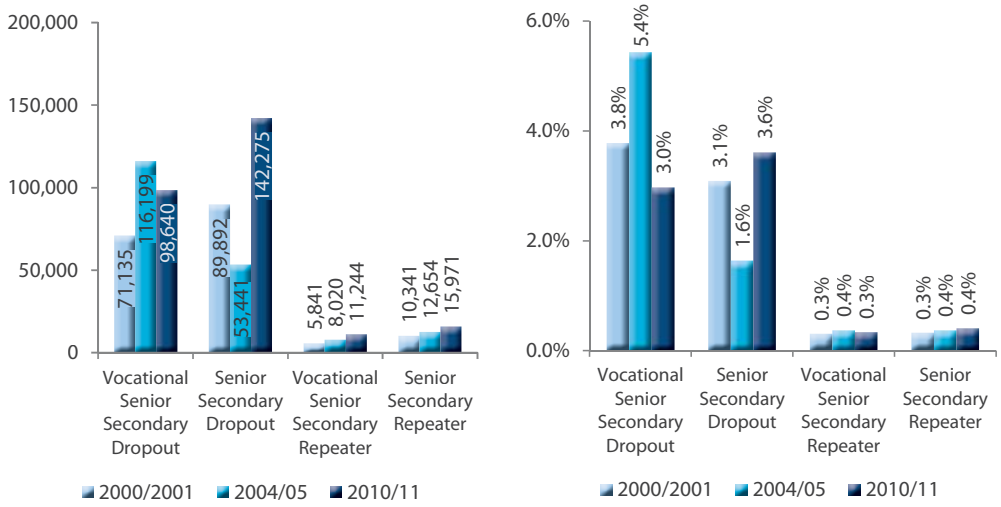
Senior secondary education faces problems in inefficiency in respect to dropout and repetition rates, and to a low student/teacher ratio.

Dropout rates for both *SMK* and *SMA* have been relatively high. In 2010/11, *SMK* witnessed a dropout rate of 3.0%, while *SMA* experienced 3.6% in the same year. However, in terms of repetition rates, *SMK* was lower at 0.3%, while *SMA* was at 0.4% (refer to Figure 21 below). Although these percentages may not appear high, in terms of numbers of students, they are quite significant.

82 MoEC. Data. 2000 – 2010.

In 2010/11, 142,275 students dropped out from SMA, while 98,640 dropped out from *SMK*. Furthermore, a total of 27,215 students across both types of school repeated classes. Thus, in total, there were 268,130 students who either dropped out or repeated grades, representing a significant waste of educational resources.

Figure 21. Dropout and Repetition Rates (2000/01 - 2010/11)



Source: MoEC, *Ikhtisar Data Pendidikan Nasional 2000/01, 2004/05, 2010/11.*

From the viewpoint of student/teacher ratio, the efficiency level of senior secondary education provision is relatively low. Furthermore, efficiency declined during the last decade. A closer look across SSE streams and school types reveals that public *SMA* student/teacher ratio reduced from 16 to 14 from 2000/01 to 2009/10. Student/teacher ratio of private *SMK* is lower and decreased from 15 to 9 during the same period. (For more information related to student/teacher ratios, refer to *Chapter 6. Teacher Management and Development*).

There are several factors that might explain some of these differences, including the fact that the smaller size and enrollments of private SSE schools will result in a lower student/ teacher ratio. In addition, the lower student/teacher ratio for *SMK* may be associated with the larger number of courses and programs of study offered. Overall, while *SMK* offers up to 96 different study programs, *SMA* offers only three study programs (Natural Science, Social Science, and Language).

Overall, it appears that the public system is significantly more efficient than the private system. With 8000 schools, less than half the number of private senior secondary schools, public senior secondary schools are serving more students than the private system, and they are doing so with fewer teachers.

3.4 Vocational Education

Vocational education and training in Indonesia has seen significant expansion over the past decade, particularly in vocational senior secondary schools, where enrollments increased 158% between 2001 and 2010. This rapid growth is in large part a reflection of the priority that the government has given to this sub-sector as a key strategy for economic development. However, this significant growth has tended to be supply-driven rather than demand-driven, which has created challenges in ensuring that the skills of the graduates from vocational education and training are matched to the demands of the labor market.

3.4.1 Overview

In Indonesia, vocational education and training is offered through both formal and non-formal services. Formal vocational education is the larger of the two sub-sectors and is offered at secondary and higher education levels by both public and private institutions. Formal vocational education and training is offered at the secondary level through vocational senior secondary schools (*SMK*). At the higher education level, it is offered through Diploma I, II, III, and IV programs including a 3-year program within polytechnics and academies (*akademi*) at the Diploma III level through the planned 1- or 2-year community college Diploma I or II programs.

Regulatory Framework

Vocational education at the senior secondary and tertiary levels is mandated under all education-related laws, including Education Law No. 20 of 2003. Standards for vocational education are determined by National Standards of Education (*SNP*), which are operationalized under the National Education Standards Board (*BSNP*). Institutional accreditation has been conducted by the National Accreditation Board for Schools and *Madrasahs* (*BAN SM*), the National Accreditation Board for Higher Education (*BAN PT*), and the National Accreditation Board for Non-Formal Education (*BAN PNF*). Teacher certification falls under the supervision of the Board of Education Human Resource Development and Quality Assurance.

Management Structure and System

The main responsibility for overseeing formal vocational education at the senior secondary education (SSE) level sits with the Directorate General (DG) of Senior Secondary Education. The responsibility for vocational education at the tertiary level sits with the DG of Higher Education. Non-formal vocational training is the responsibility of the DG of Early Childhood Education, Non- Formal Education, and Informal Education, which are within the Ministry of Education and Culture (MoEC). Operational activities related to formal vocational education at the SSE level and non-formal vocational training both fall under the responsibility of district or municipality governments.

The National Education Standards Board (*BSNP*) has issued detailed competency standards and curriculum guidelines for the provision of vocational education. In addition to this, the Ministry of Manpower and Transmigration has issued National Competency Standards for Works, which were developed in cooperation with industry stakeholders. Currently, the government is identifying feasible ways in which to include industry-relevant competency standards into the curricula of vocational schools. However, neither industry nor the ministries involved have reached an agreement on how these standards could be implemented at vocational school level or in terms of curriculum components, performance assessment and certification.[83]

Vocational Senior Secondary Education (*SMK*)

Before March 1997, vocational senior secondary education consisted of six school types, i.e. *STM* (technical SSE), *SMEA* (business SSE), *SMKK* (home economics SSE), *SMIP* (tourism SSE), *SMIK* (handicraft SSE), and *SMSR* (art SSE). Each type of school offered a particular group of skills, creating a rigid division of specialties among schools. For example, it was impossible for *STM* to provide training in woodcraft skills because these skills were an exclusive part of the *SMIK* curriculum.

The new system introduced by Ministry of Education Decree no. 36/O/1997 has only one type of vocational secondary school (*Sekolah Menengah Kejuruan* or *SMK*). Within this system, an *SMK* may provide a wide range of vocational subjects rather than specializing in only a limited number of fields.

83 ADB (Asian Development Bank). (2012). *Lesson Learned on Public-Private Alliances in the Vocational Education System of Indonesia*. Suliswanto, H., and Russell, T. Jakarta.

For example, the *SMK* could provide training in mechanical engineering (previously provided through *STM*), pastry making (previously provided through *SMIP*), and wood-craft (previously served through *SMIK*). Thus, a district may have one *SMK* , which provides three types of skills, rather than having three different schools (*STM*, *SMIP*, and *SMIK*), which each provide only one type of skills. This potentially improves efficiency in vocational education service delivery.

As well as streamlining formal vocational education and training at senior secondary level, the reforms made major changes to curricula in order to ensure that student training responded to local labor market needs. To help ensure that the curriculum was better attuned to the labor market, while also recognizing that first year students are not yet ready to choose their area of specialization (there are nearly 100 study programs on offer), a so-called 'broad-based' curriculum was adopted. Under this curriculum, students study more general subjects in their first year and then focus more on specialized areas as they move to higher grades.

Also under these curriculum reforms, entrepreneurship education was introduced, with some schools offering it as a separate subject, and other schools integrating it into other subjects and activities. Adding this type of education was motivated by a desire to encourage *SMK* graduates to create their own opportunities by establishing new businesses.

In addition to institutional streamlining and curriculum restructuring, reforms have also focused on human resource development. Teacher and instructor quality improvement has been promoted through continuous professional development efforts, particularly through teacher and instructor training, which primarily occur within Technical Education Development Centers (TED), Vocational Education Development Centers (VEDC), and Art Education Development Centers (AEDC). Some of these institutions, such as the TED in Malang, East Java, are held in high regard by many, including the business sector, for providing high quality professional development for both *SMK* teachers and business sector personnel. For example, various industries and businesses, including Siemens and FESTO, have utilized VEDC Malang as an authorized training center. These improvements in teacher professional development, curricula, and infrastructure have received significant support from GIZ, the World Bank (now ended), and, more recently, ADB.

The *SMK* Directorate, with funding from ADB, is currently implementing the *SMK* level Indonesia Vocational Education Strengthening (Invest) Project, which aims to improve the quality of the *SMK* teaching-training-learning process through provision of improved vocational training facilities. This project focuses on developing 90 model *SMK*s, which then share their knowledge and expertise with 230 neighboring *SMK*s.

Vocational Higher Education

Vocational education at the higher education level has been offered through the diploma program and may be extended so that it is also offered through applied master's and doctorate programs. The diploma program consists of Diplomas 1, 2, 3 and 4, which involve one to four years of education after senior secondary level. The three-year diploma program consists of polytechnics (an independent institution), *akademi* (an independent institution), and Diploma-3. While polytechnic and *akademi* are independent institutions, Diploma-3 is a program within a higher education institution. Apart from the teacher training courses, the diploma program offers 24 courses that are each comprised of 11 subjects.

In addition to the diploma program, there are plans to develop community colleges (*akademi komunitas*), which will offer one to two year programs. These colleges have the opportunity to provide courses more attuned to local labor market needs and could be developed at existing *SMK* sites. Community colleges should be established in close cooperation with local government, local businesses and industries, and should be closely supervised by polytechnics, *akademi,* or higher education institutions providing Diploma 3 programs. Community college graduates may pursue their education either into vocational

programs at the higher level (i.e. Diploma II to IV programs) or into academic programs of the S-1 level (bachelor degree) after taking an entrance examination.[84]

Vocational education at the tertiary education level is mainly under MoEC; however, various ministries also implement vocational training for their own (internal) human resource purposes. Examples of vocational training developed for ministry needs include military and police higher education (run by the Ministry of Defense), telecommunication higher education (run by the Ministry of Communications), and the Institute of Home Affairs (run by the Ministry of Home Affairs). In addition, tourism universities are operated by the Ministry of Tourism and Creative Industries in Bandung and Nusa Dua and provide additional specialized training. It is important to note, however, that MoEC supervises most private higher education in the tourism sector, such as that provided by *Akademi Pariwisata Trisakti* and *Akademi Pariwisata Sahid*.

3.4.2 Trends, Key Issues, and Challenges

A Rapidly Growing Sub-sector

SMK enrollment increased very rapidly during the last decade due to the 'vocationalization' policies developed by past Ministers of Education and included in the 2004-2009 MoNE Strategic Plan. During this period, the Ministry's target was to increase vocational enrollment at a faster rate than general senior secondary education enrollment, and to reverse the ratio of general senior secondary enrollment to *SMK* enrollment from 70% to 30% in 2004 to 30% to 70% by 2015 (2005-2009 Strategic Plan, MoEC).

In many districts, education officials responded positively to the Ministry's policy on vocational education development, as is clearly shown by the high number of district-level requests for assistance received by MoEC during this period. In fact, this positive response was related to a supply-driven expansion that resulted in a rapid increase in the number of public *SMK*s, civil servant teachers, and public *SMK* enrollments from 2004/05 to 2009/10. Parents also welcomed the growth of the vocational sub-sector, as they expected that their children would gain employment soon after *SMK* graduation.

Table 15. Number of Vocational Senior Secondary Schools and Students (2000/01 - 2010/11)

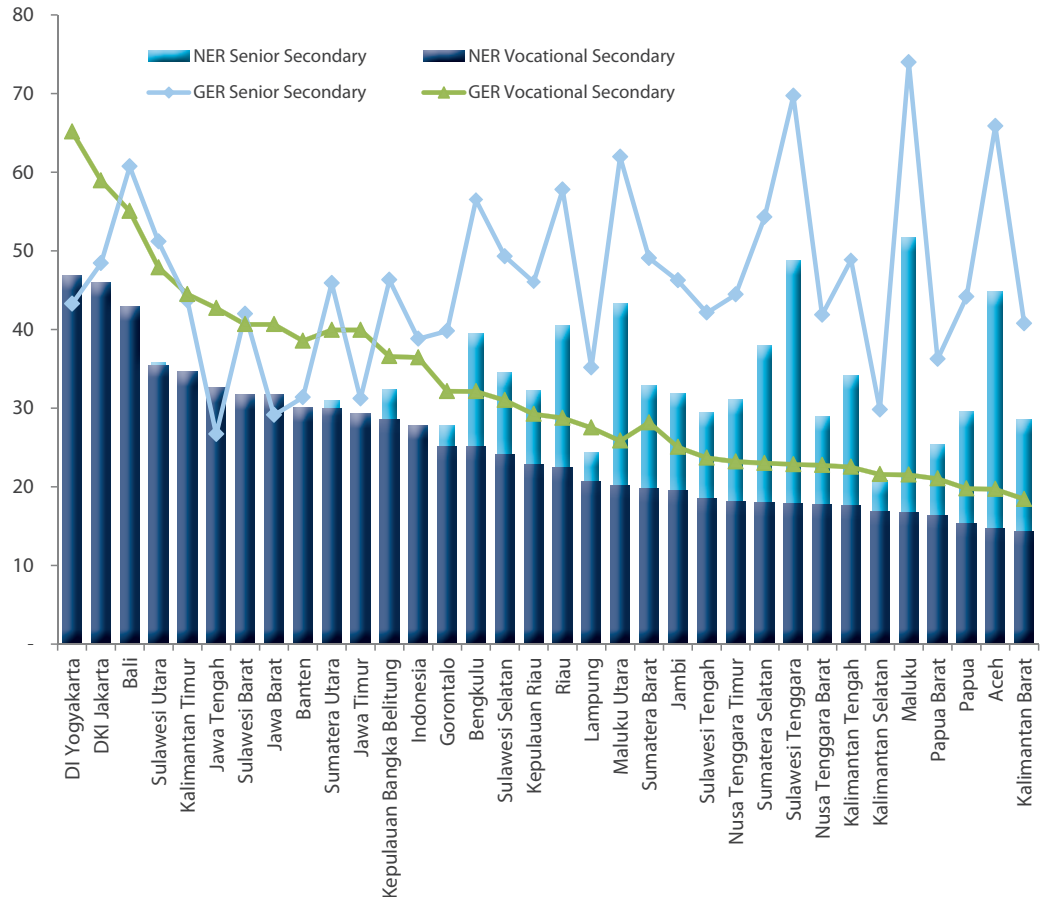
School Type	2000/01	2004/05	2010/11
Public schools	771	1,150	2,459
Private schools	3,658	4,500	6,705
Total	**4,429**	**5,650**	**9,164**
Public school students	579,892	536,064	1,395,413
Private school students	1,354,045	1,528,004	2,341,745
Total	**1,933,937**	**2,064,068**	**3,737,158**

Source: MoEC, *Ikhtisar Data Pendidikan Nasional* 2000/01, 2004/05, 2010/11.

Three provinces achieved the status of 'vocational provinces', meaning that these regions saw a higher number of *SMK* students than of students' enrolled in general senior secondary education. (Figure 22 below). The three provinces are Jakarta, Central Java (one of the three most populous provinces), and DI Yogyakarta (a province that has so many higher education institutions that it is often referred to as "students' city").

84 This concept is still under discussion. Refer also to *Chapter 8. Higher Education.*

Figure 22. Enrollment Rate of General and Vocational Senior Secondary (2009/10)



Source: MoEC (2010). *Education Statistics 2010.*

However, despite there being significant growth in the number of *SMK*s, teachers, and students, there continues to be areas of concern. Various studies (as early as 1983[85] and up to 2009[86]) on employment, the economics of education, and particularly on the rate of return, have indicated that vocational senior secondary education is less cost-effective in preparing and training the workforce than general senior secondary education. The finding of these studies is supported by evidence[87] that, while *SMK* graduates generally found employment faster and secured a higher initial salary, *SMA* graduates were able to surpass *SMK* graduates' salaries after only a few months despite having a lower initial salary.

Furthermore, the study also found that vocational senior secondary education had a lower rate of return than general senior secondary education. The lower rate of return is associated with the higher cost of *SMK* education, due to the cost of workshop equipment, and the lower lifelong income earned by *SMK* graduates compared to *SMA* graduates. As the private sector needs not only vocational skills but also general and soft-skills, further analysis is needed to determine the most cost-effective ways to prepare Indonesia's youth for the world of work.

85 Clark, D.H. (1983). *How Secondary School Graduates Perform in the Labor Market.* A Study of Indonesia. Jakarta: World Bank.

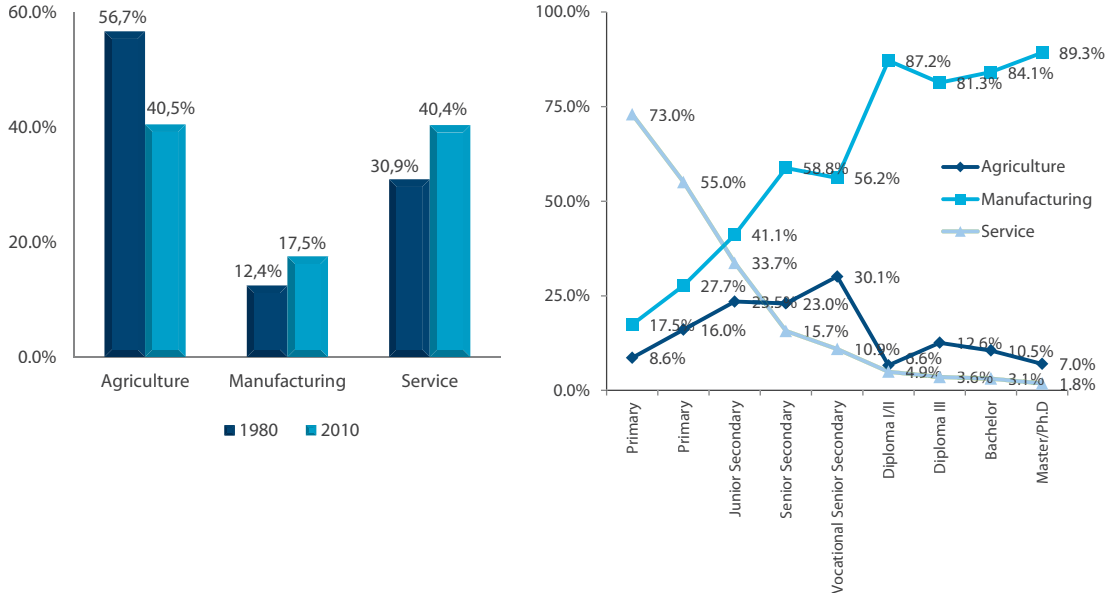
86 Chen, D. (2009). *The Economics of Teacher Supply in Indonesia*. Jakarta: World Bank.

87 Carneiro, Lokshin, Ridao-Cano, and Umapathi. (2011)

Supply and Demand

An analysis of workforce distribution over the different industrial sectors indicates that Indonesia is moving towards a knowledge-based society and economy. Overall, there has been a major shift in employment from the agriculture to the service sector over the past three decades. The agriculture sector has decreased from almost 60% in 1980 to 40% in 2010 and the service sector has increased from 30% in 1980 to 40% in 2010. The manufacturing sector has seen only a relatively small increase in employment from 12% in 1980 to 17% in 2010 (Figure 23). Whereas in rural areas, an overwhelming proportion of manpower still works in the agriculture sector, in urban areas, the overwhelming proportion works in the service sector. The manufacturing industry provides employment mainly in urban and semi-urban areas.

Figure 23. Employment by Industry and Education



Source: BPS. (2010). *Population Census 2010.*

While *SMA* tends to provide its graduates with broader knowledge and thinking skills, *SMK* provides its graduates with skills more directly relevant to manufacturing. This suggests that *SMK* might serve the manufacturing industry more effectively than *SMA* or higher level vocational qualifications. Conversely, the service industry, which requires a more general knowledge, might be better served by those with more general academic or higher level vocational qualifications. The service industry has tended to provide more employment opportunities to those with higher educational attainment.

The agricultural industry[88] is the one sector that does not require a higher level of knowledge and skills acquisition. Indeed, in this sector, graduates with higher level qualifications have a lower employment rate.

Some *SMK* have excelled in producing goods and services aimed at better meeting demand. Long-term efforts to provide better quality teachers and instructors, through continuous professional development (for example, at the VEDCs and TEDCs noted above), improved curricula, teaching learning aids, and teacher development workshops indicate a promising future for some *SMK*.

88 Defined as an industry that extracts agricultural, forestry, and fishery products from nature with minimum technology

Currently, these *SMK* are capable of producing workers with skills that match the needs of industry. For example, some *SMK* mechanical engineering graduates are capable of assembling light-aircraft; some IT graduates are capable of assembling desktop computers and notebooks that meet international industrial standards; some patisserie graduates are capable of meeting the local need for pastry products; and some agricultural graduates are capable of growing produce that meets modern supermarket standards.

Supply-based vocational education fails to equip students with skills that fit industry demands, it is an inefficient way to spend limited educational and training resources. Therefore, vocational education should be conducted through a demand-based approach. To assist with better planning and service provision, a routine demand analysis on human resource should be conducted to better serve the labor market.

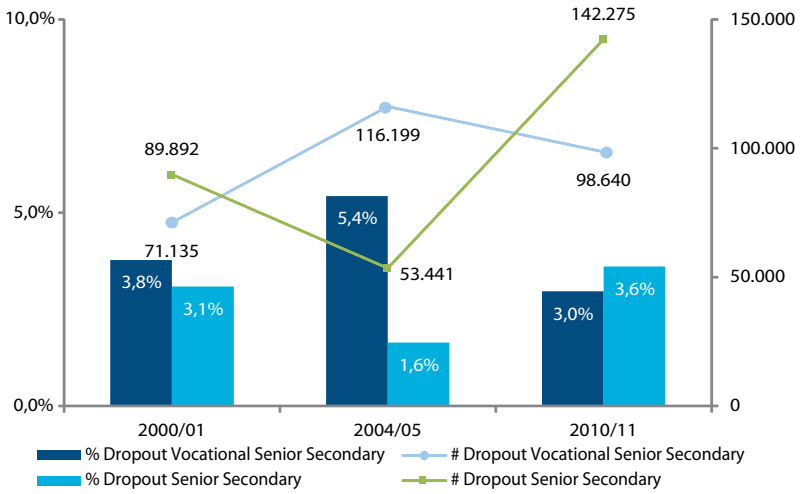
Gender Differences

The only significant difference in terms of gender and enrollment within the senior secondary education sub-sector is the level of female enrollment in vocational secondary schools. Female participation in *SMK* is lower than that of males, particularly in certain types of courses, such as engineering. The Gender Parity Index (GPI) for *SMK* was only 0.74 in 2004/05 and slightly improved to 0.79 in 2009/10.[89] In response to this MoEC introduced a special scholarship for female students at *SMK*.

Dropout Rates

Dropout rates fluctuated over the past decade. The *SMK* dropout rate increased from 3.8% in 2000/01 to 5.4% in 2004/05 and then dropped to 3.0% in 2010/11. Conversely, the dropout rate for senior secondary first dropped from 3.1% in 2000/01 to 1.6% in 2004/05 and then increased to 3.6% in 2010/11.

Figure 24. Dropout Numbers and Rates for Vocational Senior Secondary and General Senior Secondary (2000/01 – 2004/05 - 2010/11)



Source: MOEC. *Ikhtisar Data Pendidikan Nasional 2000/01, 2004/05, 2009/10.*

Dropping out is commonly associated with parental economic factors. *SMK* students tend to come from families with a lower economic status than their *SMA* counterparts.[90] Therefore, the higher dropout rate from *SMK* may be associated with socio-economic status. While more affluent families tend to send their children to academic senior secondary schools, parents of lower socio-economic groups tend to send their children to *SMK*.

89 MoEC data, 2006 and 2011

90 BPS (2011), *SUSENAS*.

When choosing a school for their children to attend, parents could make decisions based more on assumption than accurate information. Parents often assume that they should be prepared for financing seven years of education (three years *SMA* and four years bachelors or *S1* program) before children are able find employment if they send their children to *SMA*. In contrast, they assume that sending the children to *SMK* will only require three years of financial support. Parents also believe that the practical skills acquired by their children at *SMK* will help them find jobs more easily.

Need for a Multi-entry, Multi-exit System

In theory, a multi-entry/exit system that may be used as a strategy to reduce the dropout rate is already in place.[91] As noted above, most senior secondary education dropout cases are caused either by parents' inability to pay for their children's education, or by students' realization that their chosen SSE does not meet their needs. In the case that parents can temporarily no longer pay for education, students will leave the school. Then, if the parental financial capacity improves, the children re-enter the first year as new entrants. In the case that students realize their chosen school is not suitable for their needs, they change schools by re-entering the new school from the first year as new entrants. This leads to unnecessary repetition, and it is a barrier to flexible schooling.

A multi-entry/exit system would allow students to take a break at any grade - for example, to enter the labor market for one or two years and then return to school after taking a placement test. Depending on test results, students may sit in the same grade or a higher grade, if their labor market experience has reinforced their learning experience. They could also drop back to a lower grade if they had lost some of their previous academic and skills capacity. In the latter case, students may take a placement test at a new SSE or for a new course, if they want to change the type of *SMK* course in which they are enrolled. The results of the placement test would then determine which grade the students enter. This system allows students to move from general to vocational SSEs, or vice versa; from one course type to another, within academic or vocational streams; or from formal to non-formal SSEs, for more flexible schooling-time options.

However, the implementation of the mandated multi-entry/exit system of vocational education is not yet effective. Establishing the system will require elaboration through a government decree or ministerial decree and development of specific standards.

Ensuring Informed Choice

There is a need for more accurate and comprehensive data, which would enable junior secondary school graduates and their parents to make informed decisions regarding the most appropriate options for their children. In particular, more comprehensive data would help them decide whether to enter *SMK* or remain in the more academic *SMA* stream. Parents of junior secondary school students need information regarding employment outcomes for both *SMA* and *SMK* graduates to be able to make better decisions.

Equipping parents and graduates with the information needed to make more rational choices between vocational or academic education would not only increase student's potential, but would have wider economic benefits.

Coordination

Linkages between MoEC vocational education, the Ministry of Manpower (MoM), the Board for National Professional Certification (*Badan Nasional Sertifikasi Profesi* or *BNSP*), and *LSP* (*LSP* is the institution which actually carries out certification using standards developed by *BSNP*), are insufficiently clear or developed. There is a need to improve coordination between MoM (responsible for vocational training) and MoEC (responsible for vocational education).

91 National Education Law no. 20, 2003, Decree no. 17, 2010.

New Community Colleges

Following the passage of the new Higher Education Law in July 2012, a design for integrating community colleges into the vocational higher education (VHE) subsystem, in order to more effectively serve local development, labor market and students, was developed. As currently available data of the 2010 Population Census shows, graduates of Diploma III programs have become less favored in the labor market. The one to two year community college model addresses the need for more access to higher education (the continuation rate from SSE to higher education is only about 50% and the availability of higher education varies substantially) and avoids the high cost of establishing new vocational education institutions.

A one- or two-year community college *(akademi komunitas)* may be established at an existing *SMK* with close supervision from and cooperation with a polytechnic or other VHE institution. Graduates are expected to enter the labor market, but there are possibilities for them to pursue their education into Diploma 2, Diploma 3, and *S1* programs if they complete an entrance test. To assure its relevance to local labor market needs and to assure its financial support, this college should be established under the close supervision of the district or municipality government and in cooperation with local businesses and industries.

3.5 Special Needs Education

Special needs education is a relatively new field within the education sector in Indonesia, Yet, in the past decade, it has still seen significant developments, both in the dominant model (from an 'institutional' model to a wider, more inclusive approach) and in management in the context of decentralization.

3.5.1 Overview

Government Regulation No. 17 of 2010 on education management states that provincial governments should provide at least one special school for each impairment and that cities and districts should provide special education in regular schools. In the future, cities and districts will provide inclusive education for all learners through the formal school system. Provinces, through their special education school networks, will provide the necessary support and referral systems to support inclusive schools.

There are more private schools specifically catering to students with special needs than public schools for the same purpose at both basic and senior secondary levels, particularly in Java. As Table 16 below indicates, only 37.0% of primary/junior secondary schools are run by the government, and this percentage was even lower for secondary level schools (18.3%). Private special schools are generally owned and managed by foundations, often with religious affiliations, though some for-profit schools can now be found in larger urban areas such as Jakarta. Although managed by foundations, private special schools are supported by the national government with financial- and human resources.

The majority of special schools are located on the island of Java. A major reason for this is that for a very long time, *IKIP* Bandung – now UPI Bandung – was the only university offering degree programs in special education. Until today, in the outer islands, we find that the majority of special education teachers are originally from Java and have migrated to other islands. Only recently have universities on islands other than Java established bachelor and master degree programs in special education.

In terms of the number of students enrolled in special schools, there is an imbalance in the ratio of males to females. At both primary and junior secondary school levels, girls make up about 41.8% of total *enrollment*s. In some regions of Indonesia, education for children with special needs is still not considered important. From a gender perspective, girls are more disadvantaged than boys due to traditional perceptions of gender roles and functions.

Table 16. Number of Special Needs School (Public and Private)

Province	Primary and Junior Secondary			Senior Secondary		
	Public	Private	All	Public	Private	All
Total	629	1,073	1,702	133	594	727
Percentage of Total	37.0	63.0	100.0	18.3	81.7	100.0

Source: MoEC (Directorate of Special Needs Education), *Sekolah dan Siswa Sekolah Luar Biasa 2011/12*, Kementerian Pendidikan dan Kebudayaan, Direktorat Jenderal Pendidikan Dasar, Direktorat Pembinaan Pendidikan Khusus dan Layanan Khusus Pendidikan Dasar, page 1-236

Also, enrollment figures indicate a low transition rate from primary to secondary level. Possible reasons for this include parents' assumptions that education for children with disabilities is not important and is an unnecessary financial burden.

Table 17. Number of Students Enrolled in Special Needs Schools

School Level	Male	Female	Total *Enrollment*
Primary	34,488	24,540	59,028
Junior Secondary	8,108	5,996	14,104
Senior Secondary	N/A	N/A	6,967
	Total		**80,099**

Teachers in special schools in Indonesia come from diverse educational backgrounds. Thirteen percent are senior secondary school graduates, 1.6% have one year diploma degrees, 14.4% have two year diploma degrees, 4.4% have three year diploma degrees, 65.1% have bachelor degrees and 1.2% hold master and PhD degrees. This data shows that 33.7% of the current special education teacher workforce still needs to upgrade their education level to a bachelor degree, which is mandatory under regulations set by the Ministry of Education and Culture.

Table 18. Teacher Qualifications in Special Needs School (Primary and Junior Secondary)[92]

Public / Private	Academic degree														Total
	SMA		D1		D2		D3		S1		S2		S3		
	CS	HT	CS	HT	CS	HT	CS	HT	CS	HT	CS	HT	CS	HT	
Public	157	407	67	23	659	243	77	101	2,622	666	70	1	0	0	**5,093**
Private	76	1,452	36	125	715	646	101	416	4,354	2,615	95	21	1	0	**10,653**
Total	**233**	**1,859**	**103**	**148**	**1,374**	**889**	**178**	**517**	**6,976**	**3,281**	**165**	**22**	**1**	**0**	**15,746**

Notes: CS – Civil servants; HT – Honorary teachers; *SMA* – Senior secondary school; *D1* – Diploma 1; *D2* –Diploma 2; *D3* – Diploma 3; *S1* – Bachelor degree; *S2* – Master degree; *S3* – PHD

The varied interpretations of laws and regulations related to the division of responsibilities between provinces and cities/districts have led to different implementation models. Some models follow the system stipulated in government Regulation No. 17 of 2010. Under this system, while provinces coordinate special needs education, cities and districts manage regular and inclusive education. This approach was adopted in Jakarta, Yogyakarta and West Java. In other provinces, the cities and districts coordinate the whole education system, including special schools. This model was implemented in Central Java and East Nusa Tenggara (NTB). A third option is to place regular and special needs education under the supervision of the cities and districts while placing some special schools under the coordination of the provinces, such as in East Java.

92 Data provided by *Kementerian Pendidikan dan Kebudayaan, Direktorat Jenderal Pendidikan Dasar, Direktorat Pembinaan Pendidik dan Tenaga Kependidikan Pendidikan Dasar*

3.5.2 Inclusive Education Initiatives

There has recently been a shift in focus from improving special schools to providing more inclusive education. Accordingly, some cities and districts have invested resources in developing an inclusive education system that provides quality education for all children, including children with disabilities. In such instances, regular schools serve as the main providers of education and special schools support the regular schools in matters related to special education.

In these cities and districts, some students with severe impairments still go to special schools. However, the long-term goal is to decrease the number of students in special schools and to change the role of special schools into resource centers for inclusive education. The case studies below provide some examples of cities and districts which have implemented inclusive education systems.

Box 3. Inclusive Education Initiatives

The City of Payakumbuh – in 2002, the city of Payakumbuh in West Sumatra, in cooperation with an international NGO, established a resource center for inclusion and special needs education. The resource center's role is to provide support for regular inclusive schools teaching children with disabilities. Other functions of the resource center include provisioning adapted teaching/learning materials (including books in Braille) and seeking out and engaging out-of-school children in schooling.

Lembata District – Lembata is a remote island in the NTT province of Indonesia. In 2011 the District of Lembata, in cooperation with international NGOs, decided to make its education system more inclusive. Several workshops for teachers from regular schools and special schools helped them apply and use new approaches and define new roles for their institutions.

Rembang District – Rembang, which is located on the northern coast of Central Java on the border of East Java, has recently begun making its schools more inclusive so that they are better able to cater to the educational needs of children with disabilities. Together with international NGOs, Rembang plans to establish 12 pilot schools for inclusive education in 30 villages. The intention is that this plan will mushroom and bring inclusion to other schools.

3.5.3 Trends, Key Issues and Challenges

Two education systems: Many provinces, cities and districts are currently providing education for children with disabilities through two types of schools: segregated special schools and inclusive regular schools. There are plans to transform special schools into resource centers for inclusive regular schools. Although combining the two types of schools is encouraged by the Directorates for Special Education and Special Services for Basic and Secondary Education in the Ministry of National Education and Culture, under the current legal situation described above, carrying this out will depend on initiatives from the cities and districts.

Financial support: One of the major complaints made by special schools is that there is a lack of funding available for them. Special schools receive *BOS* funding from the national government but often get no additional funding from their provincial and/or district authorities.

Priorities: Departments in provincial and city/district education authorities often overlook special schools. Regional education authorities often do not give sufficient priority to special needs education.

Human resources: Changes in key personnel within the local education authorities can jeopardize past accomplishments. Changes often create situations in which good programs with promising results are discontinued and replaced with other programs.

Accessibility: Although all children in Indonesia legally have the right to education and access to schools, physical accessibility is still a major issue. Even special schools often lack basic accessibility features such as ramps for wheel chairs, guiding blocks for students with visual impairment, and security for areas that are potentially dangerous. University buildings, even newly constructed ones, are often inaccessible for disabled students. The challenges are greater in remote and rural areas.

Braille books: The Indonesian special needs education system established a decentralized Braille production system for school books and other reading materials over 10 years ago. There are nine large-capacity and 38 medium-capacity Braille printing units in Indonesia. However, due to lack of funding and attention from national and regional education authorities, most of these printing units are currently not functioning well. To revitalize the Braille production, proper maintenance of all Braille embossers must be performed and key staff must be retrained in the Braille production units.

Sign language: The Ministry of Education and Culture has published a dictionary on Indonesian Sign Language. However, the sign language that is taught in private special schools and used by national NGOs of and for the deaf, differs significantly from the sign language developed by MoEC.

3.6 Non-Formal Education

Non-formal education (NFE) in Indonesia takes different forms and reaches a significant number of people who fall outside the formal education system. NFE is primarily the responsibility of MoEC, but some programs, such as the school equivalency 'packages', are implemented under both MoEC and MoRA. This section examines three of the more significant NFE programs, which are part of the education sector within Indonesia - the school equivalency packages, the literacy programs and the Islamic education offered by Islamic boarding schools or *pesantren*.

In addition, it should be noted that there are many private skills training institutions in operation. These institutions largely cater to people continuing education beyond junior or senior secondary level (and drop outs from secondary education). Common courses offered include computing, hairdressing, sewing, and English language. In 2012 there were around 575,000 participants in 18,000 such institutions, of which very few are accredited.

3.6.1 School Equivalency Program (Packages A, B, C)

Non-Formal Education in Indonesia is particularly relevant in two areas: education for all and lifelong learning. These two areas are considered to be essential elements and enabling factors to achieving the Millennium Development Goals (MDGs).[93]

As discussed in the Basic and Secondary Education sections, not all school-age children are enrolled in formal education. Package A (Primary equivalency program), Package B (Junior Secondary equivalency program), and Package C (Senior Secondary equivalency program) play an important role in accelerating universal access to education by providing education to those who have missed out on schooling, who dropout from school, or who may be excluded from schooling.[94]

The latest available data from MoEC and MoRA shows that, in 2010, just over 800,000 people were enrolled in equivalency programs (Table 19). The number of students enrolled in Package A is low,

93 BAPPENAS, (2010). *The Roadmap to Accelerate Achievement of the MDGs in Indonesia*. Also see UNESCO-JICA. (2005). *Non-Formal Education to Promote Education for All and Lifelong Learning*. (Symposium Proceeding).

94 Bappenas (2010), page 74. In remote and difficult areas, distant location of schools and limited means of transportation often force children to abandon formal education. World Vision, (2009). *Pendidikan Non-Formal dan Informal: Peluang Meraih Keterampilan Penunjang Kehidupan serta Pendidikan Kesetaraan*.

which is in line with the high enrollment rate in Primary (formal education). The number of students enrolled in Packages B and C constitutes the highest share of equivalency programs.

Table 19. Non-Formal Education in Indonesia

NON-FORMAL EDUCATION	GENERAL	ISLAMIC	TOTAL
Package A			
Learning Groups (equal to schools)	5,504	318	5,822
Students	151,908	16,978	168,886
Package B			
Learning Groups (equal to schools)	9,130	736	9,866
Student	353,805	20,315	374,120
Package C			
Learning Groups (equal to schools)	6,273	1,249	7,522
Students	230,744	56,026	286,770
Total			
Total Learning Groups (Packages A, B, C)	**20,907**	**2,303**	**23,210**
Total Students (Packages A, B, C)	**736,457**	**93,319**	**829,776**

Source: MoEC. *Ikhtisar Data Pendidikan Nasional 2010* and MoRA. *Buku Statistik Pendidikan Islam* 2010.

The value of non-formal education lies in its flexibility and the formal recognition it has received from the government. Education Law No. 20 of 2003 considers that education in Indonesia covers formal education (school and university), and non-formal education including equivalency programs (Packages A, B, and C).[95] Ministerial Decree No. 3 of 2008 describes the delivery of equivalency programs that combine face-to-face meetings, tutorials, and distance learning. The Decree officially recognizes Packages A, B and C and makes them equivalent to formal education. Law No. 20 and Decree No. 3 are further reinforced by Ministerial Decree No. 35 of 2012, which states that the District Education Office will issue a school diploma (*Surat Keterangan Hasil Ujian Nasional*) to students who pass a national examination for an equivalency program.

3.6.2 Literacy Programs

Indonesia's efforts to reduce illiteracy are considered to have been very successful. Between 2005 and 2009, illiteracy rates among those aged 15 years and above were cut in half. In 2012, the Directorate of Community Education Development in MoEC received the King Sejong Literacy Prize from UNESCO in acknowledgement of this achievement, which involves almost three million people, and places special emphasis on non-literate women, for whom programs combining life skills and basic literacy training are provided. This section outlines the nature of the literacy program and highlights two of the innovative approaches that have been used, as well as some of the challenges.

Levels of Literacy

The 2010 Population Census shows that the overall illiteracy rate among residents aged over 15 it was 5.3%. This percentage is slightly above the target indicator of 5% by 2010, set in the Ministry of Education and Culture Strategic Plan for 2010-2014. The gender equality rate among non-literates rose from 92.7% in 2004 to 97.8% in 2009. (Figure 27 and Figure 28).

95 Education Law 20 (2003), article 26.

Figure 25. Illiteracy Rate Among Residents Aged 15 Years and Above

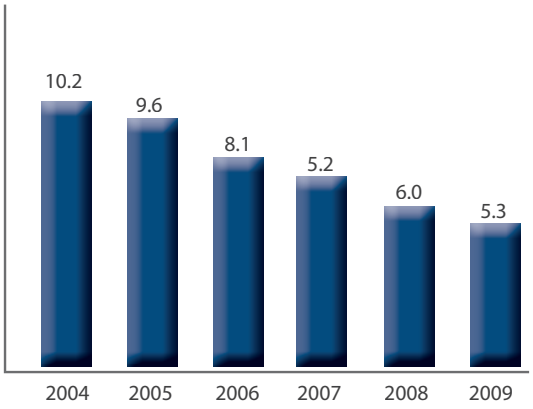
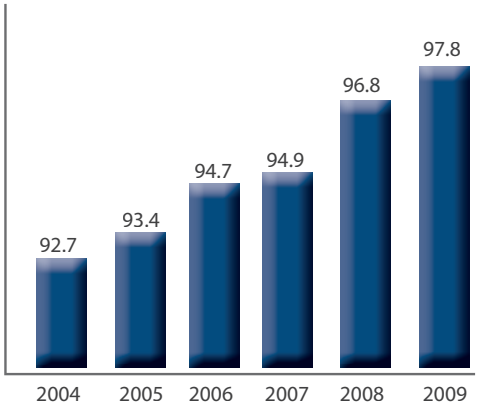


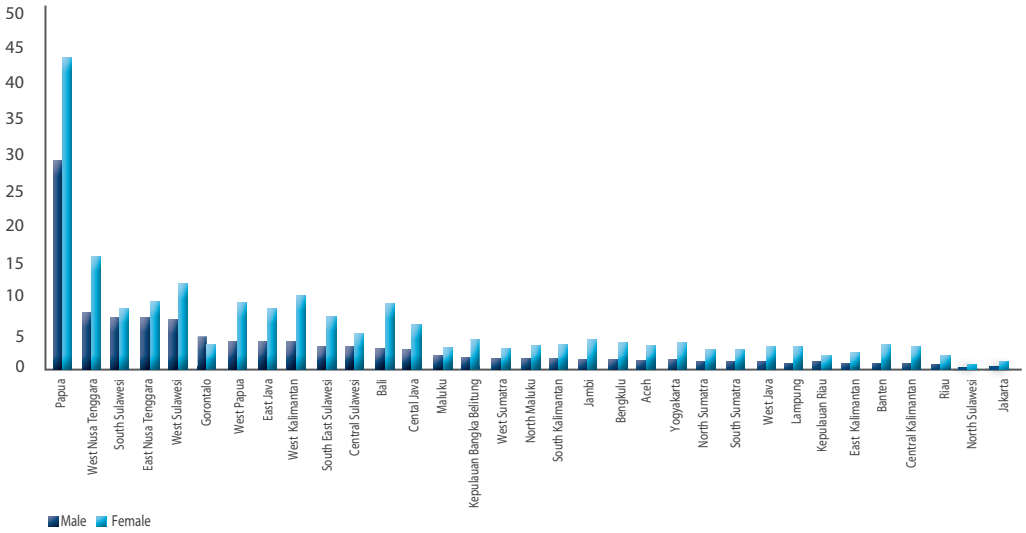
Figure 26. Gender Equality Ratio Among Illiterate Person



Source: MoEC. (2010). *MoEC Strategic Plan 2010-2014.*

The following diagram gives an overview of non-literate residents by province and gender based on the results of the 2010 census:

Figure 27. Illiteracy Rates by Province and Gender (2010)



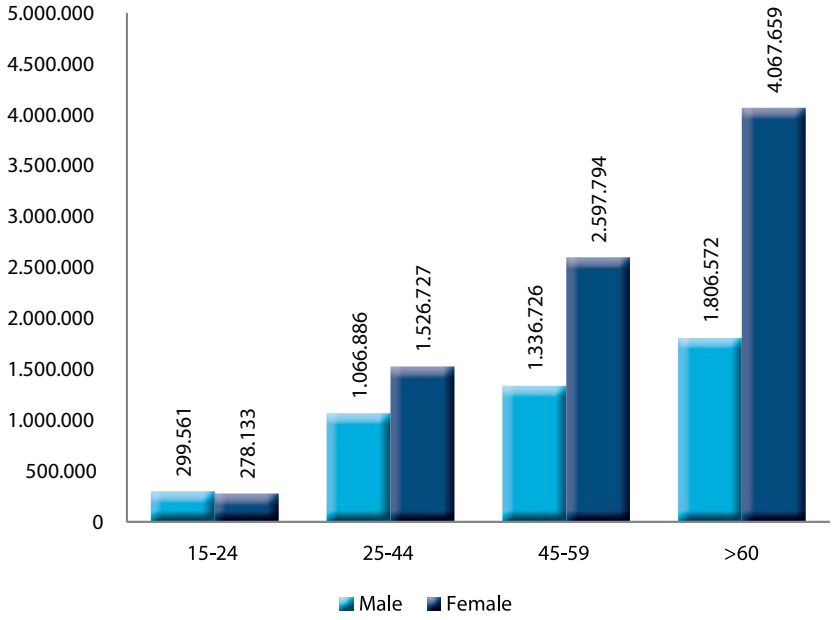
Source: BPS. (2010). *Population Census 2010.*

The results of the 2010 Census raised questions regarding accuracy, particularly in several regions where large differences existed between data sets. For example, in East Java, while the Provincial Education Office data recorded fewer than 500,000 non-literate residents, the 2010 Census found 3.79 million non-literate residents. As well as finding a higher overall illiteracy rate than the Office's data, the census found a greater gender disparity in illiteracy, as shown in the diagram above. Discrepancies such as these highlight problems related to gathering accurate data regarding literacy.

Age and Gender

Participants in the literacy education program have unique characteristics that distinguish them from students in the school system. They tend to be older; in fact, most literacy program participants are over 60 years old. The figure below shows that gender disparity has a strong correlation with age: the younger the residents, the more equal the gender equality ratio. This correlation is in line with the gender equality targets in a number of formal education indicators in the MoEC Strategic Plan.

Figure 28. Gender and Age of Non-Literate Population



Source: BPS (2010). *Population Census 2010.*

Literacy Education

Literacy can be understood as the ability to read and write printed materials along with the ability to communicate verbally and in writing in the Indonesian language. Nonetheless, with the increasingly rapid development of advanced information and communication technology, the understanding of literacy has developed beyond this initial definition. The definition of literacy now includes the ability to use various semiotics in visual, aural and digital modes.

Literacy Education has two levels: Basic Literacy and 'Self-Reliant Enterprise' Literacy (*Keaksaraan Usaha Mandiri, KUM*). The basic level Literacy Competency Standard contains five components: 1) listening, i.e. being able to understand verbal discourse in the form of messages, orders and instructions in the Indonesian language related to daily life; 2) speaking, i.e. being able to use verbal discourse to reveal thoughts, feelings and information during introduction, greeting, conversation, inquiry, storytelling, describing objects and responding or suggesting that function in daily life; 3) reading, i.e. the ability to understand written discourse in the form of messages, orders and instructions in the Indonesian language that is functional in daily life; 4) writing, i.e. being able to do various writing activities to reveal thoughts, feelings and information related to daily life; and 5) calculating, i.e. being able to perform basic calculation (addition, subtraction, multiplication and division) both verbally and in writing that is functional in daily life.

The KUM program is more business-focused and has two objectives: 1) to maintain literacy, and 2) to enhance knowledge, attitude, skills, and self-reliant enterprise. The KUM Competency Standards include that participants are able to: 1) analyze and, 2) identify needs and demands in the community for goods and services in line with the business sector they have chosen, 3) formulate a business plan and operate the independent business they have developed, 4) manage costs, and 5) maintain the survival of the businesses they own.

Box 4. Innovative Literacy Programs

Decentralization has encouraged local governments to undertake various innovations in conducting literacy programs. Several literacy education programs can be considered successful.

One successful program is the 32-day model used in Karawang, West Java. This model was able to intensively and effectively reduce the implementation period of the literacy education program from six months to only one month. The *ACM* (*Aku Cepat Membaca*, or I Read Fast) model, developed in Malang, East Java, is even faster. Participants require just 12 days to achieve basic literacy.

Another model considered successful is cooperation with universities through the Thematic Field Work (*KKN Tematik*) model, in which university students are specially prepared to serve as tutors in literacy programs. This model allows a more extensive reach, as the students are sent out into villages that have larger numbers of non-literate residents. As the students live with the local people, they teach not only basic literacy and numeracy but also living skills appropriate to the potential and needs of the local community. The main lesson that can be learned from these successful literacy programs is that local models should be suited to the characteristics of the literacy program participants. One key to the success of the Karawang and *ACM* models is the training provided for prospective tutors in the use of these models. Literacy tutors differ from formal school teachers, who use a pedagogical approach; in literacy education, the approach is andragogical[1], in which the participants are treated as stakeholders: though they are non-literate, they have a lot of life experience.

Key Issues and Challenges

Two of the main issues facing those implementing literacy programs in Indonesia relate to accuracy of data and sustaining literacy levels once courses have been completed.

Data Accuracy: The difficulty that most often arises when conducting literacy education programs is that there is a lack of accurate data to assist with planning and reporting. Until recently, data came from the Central Bureau of Statistics (*BPS*) and local Education Services. These two data sources often gave conflicting results because they used different methods of data collection. *BPS* has always used data from the National Socioeconomic Survey (*Survei Sosial Ekonomi Nasional or SUSENAS*). The analytical unit used in this survey method is the sub-district (*kecamatan*). Using this unit of analysis prevents the data from disclosing in detail the precise identities and locations of non-literate residents. In contrast, the District Education Office uses a method of direct data collection. The inclusion of a literacy variable in the 2010 census resulted in more accurate data collection regarding the literacy level of all citizens.

Sustaining Literacy: A major challenge in the literacy program is maintaining literacy levels of participants following their completion of the program. Anecdotal evidence suggests that the recidivism rate may be quite high. One program that can help address this 'return to illiteracy' is the use of the Small-scale Community Library or *Taman Bacaan Masyarakat,* and other similar informal approaches.

3.6.3 Pondok Pesantren

The Education Law No. 20 of 2003 recognizes Islamic education, under the jurisdiction of MoRA, as part of the national education system. The non-formal stream of Islamic education consists of *Pondok Pesantren* or Islamic boarding schools, which are mostly found in rural areas and teach mainly religious subjects (although their students may also attend formal schooling during the day). According to Burhanudin[96], there are at least four types of non-formal Islamic educational institutions: (1) *NU*-based Islamic boarding schools, (2) modern Islamic boarding schools whose orientation is Islamic reformism, (3) independent *pesantren*, and (4) Islamic schools.

The formal stream of Islamic schools, which teach the national curriculum in addition to Islamic subjects (types 1, 2 and 4 in Burhanudin's categorization above) at different levels, have been discussed in

96 Burhanudin, Jamhari and Jajat. (2008). UIN.

relevant sections elsewhere in this chapter. However, independent *pesantren* are somewhat different from the rest. This section briefly outlines the nature of these *pondok pesantren* and then explores key issues related to this type of education.

Overview

Pesantren have long played a key role in traditional Islamic education within Indonesia and remain popular as a low-cost means of providing a religious education, particularly for lower socio-economic groups. Often organized around a religious leader or *Kyai*, they have long provided low cost or free education, particularly in rural areas, in Islamic religious subjects known as *ngaji*. Starting in the second half of the 20th century, an increasing number of *pesantren* have responded to the modernization of Indonesian society by adding more secular or general subjects to their curriculum. These *pesantren* have also established schools or *madrasah* (or permitted their students to attend formal *madrasah* schools nearby where the national curriculum is taught).

Generally, *pesantren* share five features: (1) A dormitory – often basic – where students reside; (2) A mosque, or *Masjid* – where the students go for prayers and sermons (3) Instruction in the classical religious books from the Middle East known as *Kitab Kuning* (yellow books); (4) Students –*santri* – who live and study in the *pesantren*, and (5) The *Kiyai* – or head *Ustadz* - who is usually the person who established, owns and manages the *pesantren*.[97]

The *pesantren* curriculum has four possible components
- traditional religious education, known as *ngaji*
- government-recognized curricula
- vocational skills training; and
- character development

Traditional religious education and character development are defining characteristic of any *pesantren.* However, each *pesantren* differs in the degree to which it engages each of these components.

In addition to offering their own curriculum, *pesantren* often function as Islamic education resource centers by providing learning opportunities for students at general schools to study Islamic religion in the afternoon. These resource centers are called *Madrasah Diniyah Awaliyah* (*MDA*) at primary level; *Madrasah Diniyah Wustha* (*MDW*) at junior secondary level; *and Madrasah Diniyah Ulya* (*MDU*) at senior secondary school level. As resource centers, *pesantren* only teach religious subjects to students already studying in general schools. There are 55,975 non-formal *madrasah* units, and they serve 4,888,819 students, almost 90% of which are at the *MDA* or primary level.

In terms of a legal framework, although *pesantren* are independent institutions, they are legally required to be registered with MoRA. Decree No. 3 of 2012, issued by the Minister of Religious Affairs, stipulates the requirements *pesantren* need to meet. Currently, there are 25,785 *pesantren* of all types registered with MoRA. These *pesantren* serve 3,652,083 total students and enroll a higher percentage of male (54.2%) than female (45.8%) students.

In terms of course accreditation, some *pesantren* are now involved in teaching primary, junior secondary, and senior secondary school equivalency programs (Packages A, B and C). At present 311 *pesantren* are registered to teach the primary equivalency program (and have 16,978 students); 494 *pesantren* are teaching the junior secondary program (and have 20,315 students), and 1,310 *pesantren* are teaching the senior secondary equivalency program (and have 56,128 students). These numbers, proportionally, reflect the range of ages of students found in *pesantren*.

97 Zamakhsyari Dhofier. (1982). *Tradisi Pesantren*. LP3ES. Jakarta.

Trends, Key Issues and Challenges:

Increase in the number of pesantren

Data from MoRA shows a steady increase in the number of registered *pesantren* and students enrolled in them. In 1977, there were 4,195 registered *pesantren*, with 677,384 students. This number had increased by 1981 to 5,661 registered *pesantren*, with a total of 938,397 students. By 2003-04, the number of *pesantren* reached 14,647 and by 2011, there were 27,218 *pesantren* of all types registered with MoRA and serving 3,642,738 students.[98]

This increase may be attributed to a number of factors: increased trust in *pesantren,* and in the relative merit of the education they offer; the relatively low costs of *pesantren*; and the fact that now most *pesantren* are registered with MoRA. MoRA provides support – financial and in-kind – only to registered *pesantren,* which provides an incentive for *pesantren* to register.[99]

Modernization of pesantren

Pesantren are not immune to the political and socio-economic changes that have affected Indonesia. They have been especially vulnerable of changes since 1998, with the increasing democratization and modernization of the country. Many *pesantren* have adapted to these external changes to some degree by adding courses in language – particularly Arabic and English – and, in some instances, by adding IT-based teaching and learning. However, some *pesantren*, which tend to be unaffiliated with any Islamic mass organizations and are based largely on Salafi ideological beliefs, have resisted this trend towards modernization and have tended to adopt a literal interpretation of religious texts.

Pesantren and MoRA

There have, at times, been some tensions in the relationship between *pesantren,* which are privately owned and run, and MoRA, which is responsible for oversight and regulation. In an attempt to ensure that *pesantren* teach mainstream Islam, rather than fundamentalism or radicalism, MoRA has been in constant dialogue with the majority of *pesantren* in co-operation with Muslim organizations such as NU, *Muhammadiyah, Al-Washliyah* and others. Occasionally, MoRA has also provided textbooks and other kinds of support for *pesantren*. However, the more fundamentalist *pesantren,* which are not affiliated with any of the large Muslim national organizations, tend not to be part of this dialogue.

Pesantren enable access to education for lower socio-economic groups

While basic education in Indonesia has been provided free of tuition since the introduction of the *BOS* scheme in 2005, the 'hidden' costs of education (e.g. uniforms, books, etc.) still exclude poorer families. *Pesantren* are usually very inexpensive or even free, with students sometimes being required to work in the *pesantren* to meet their living costs. Parents also feel their children are getting a sound religious education in a relatively safe environment and, with some *pesantren* offering some form of vocational training, that children are also likely to gain paid employment once they leave.

Data from MoRA[100] indicates that some vocational subjects have also been taught and practiced in *pesantren*. These include aquaculture, which has been taught in 58 *pesantren*, farming, taught in 1,266 *pesantren,* and commerce, taught in 332 *pesantren*. These subjects are not only taught in theory, but also involve hands-on practical experience (which often also generates income for the *pesantren*).

Pesantren under decentralization

With the decentralization of education, local governments at district level have become responsible for education within their districts. Although *pesantren* are community-owned, they are supervised by MoRA. Thus, they may receive little, if any, support for education from the local government. *Pesantren*

98 MoRA (2011), *Buku Statistik Pendidikan Islam*, pp 195-196.

99 Interview with MoRA officials.

100 *Buku Statistik Pendidikan Islam*, TP 2009/2010

staff tend to have limited knowledge and skills in areas related to management and education. Staff would benefit considerably, if they were able to access training provided by MoEC and by District Education Offices.

Another issue concerns the certification of courses that *pesantren* offer. Currently, these courses are not given formal recognition by government, which means that graduates do not have officially recognized qualification (unless they also attended regular schooling in addition to studying in a *pesantren*). A key --issue is finding a way in which to integrate *pesantren* education within the national education system, so that these schools are recognized as formal education institutions.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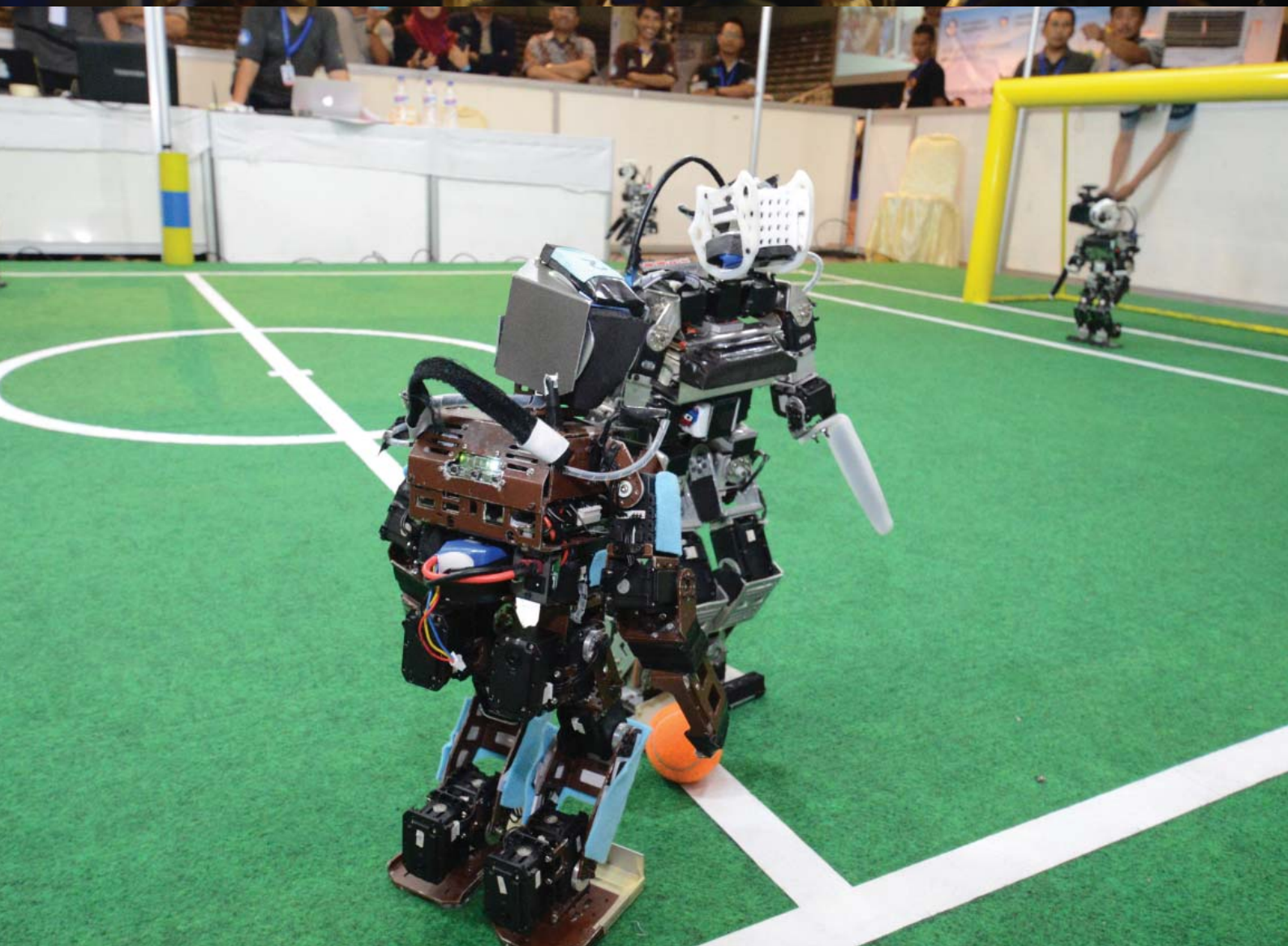


Chapter 4
Higher Education

The higher education sector in Indonesia has expanded as the country's economy has grown. Despite this expansion, the sector has the potential to contribute even more to the government's development agenda. This chapter focuses on this important education subsector by examining its trends, achievements, and the challenges it faces. Section 4.1 provides a brief overview of the system. Section 4.2 discusses the regulatory framework, while Section 4.3 focuses on higher education funding. Section 4.4 describes enrollment patterns, participation, and equity. Section 4.5 addresses staffing issues. Section 4.6 elaborates on issues related to the quality of higher education, and finally Section 4.7 discusses the relevance of higher education.

4.1 Brief Overview of the System

The current Indonesian higher education system is diverse, with more than 3,600 higher education institutes serving 5.4 million students. Education Law No. 20 of 2003 and Higher Education Law No. 12 of 2012 stipulate that there are six types of Higher Education Institutions (HEI) in Indonesia:

- Academies (*Akademi*) and Community Colleges (*Akademi Komunitas*), which offer only one or a limited number of fields of study;
- Polytechnics (*Politeknik*), which offer vocational education or practical skills development;
- Advanced Schools (*Sekolah Tinggi*), which provide academic and vocational education in one specific discipline;
- Institutes (*Institut*), consisting of several faculties or departments pertaining to one particular discipline; and
- Universities (*Universitas*), which offer academic study across multiple disciplines and professional education.[101]

Unlike pre-tertiary education, higher education in Indonesia is directly managed by the central government. MoEC, through the Directorate General for Higher Education (DGHE), which is responsible for managing public and private higher education institutions, and MoRA, through the Directorate for Islamic Higher Education, is responsible for managing public and private Islamic higher education institutions. In addition to MoEC and MoRA, several government ministries and agencies administer 82 higher education service institutes (*PTN Khusus*)[102] to ensure a supply of human resources for their respective ministries.

101 Republic of Indonesia, Education Law 20/2003 article 20 and Higher Education Law 12/2012 article 59.

102 Higher Education Law 12/2012 Article 1

The National Accreditation Board for Higher Education (*BAN-PT*), which was established in 1994[103], is mandated to assess HEIs (public and private) and academic programs offered by the institutions. The *BAN-PT* was established to carry out three tasks: (i) to assess the quality of higher education institutions through accreditation of the programs of study and of the institutions themselves; (ii) to ensure public confidence in higher education institutions by disseminating the results of the accreditation process; and (iii) to provide recommendations for improvements in provision of higher education.[104]

4.2 Regulatory Framework

The House of Representatives recently passed the new Higher Education Law No. 12 (in July 2012), which complements the existing Education Law No. 20 of 2003. Key points of this new law are as follows:

Level, Type and Degree

Regardless of their race, faith, age, and physical background, all Indonesian citizens have the right to pursue higher education. Broadly, Indonesian HEIs include both public and private institutions. Under the Law, there are three types of higher education: vocational, academic, and specialist or professional. Students who have graduated from one type of higher education can continue their studies at another type of institution (multi-entry, multi-exit). For example, students graduating from vocational undergraduate courses may be admitted to a master's program at an academic type of higher education institution.

The degrees awarded by HEIs under the current system are Diploma (*Ahli Pratama, Ahli Muda,* and *Ahli Madya)*, Bachelor (*Sarjana*), Master/Professional (*Magister*), and Doctor/ Specialist (*Doktor*). The functions of higher education are summarized under the term *Tridharma* (three 'dharmas'): teaching, research, and community service.

Provision of Higher Education in Provinces and Districts

The central government is responsible for developing at least one public university in each province and, together with regional governments, is responsible for developing at least one academy at district level. The central government is also responsible for establishing 'flagship universities' (*perguruan tinggi unggulan)* at national level, which excel in one particular field of science, technology, or the arts. The central government also facilitates relationships among higher education institutions, industry, and regional governments.

Quality Assurance

Quality assurance is undertaken internally by the universities themselves and externally by *BAN-PT*. All higher education institutions have to pass an accreditation process conducted by *BAN-PT*. Failure to pass the process will lead to administrative sanctions, and the institution's license may be revoked. In addition to *BAN-PT*, the law indicates that an Independent Accreditation Body (*Lembaga Akreditasi Mandiri*) can be set up by the government and the public to ensure public accountability of HEIs.

To clarify the roles and responsibilities of *BAN-PT* and the Independent Accreditation Body and distinguish one from the other, it has been decided that *BAN-PT* will accredit HEIs at the institution level, while the Independent Accreditation Body will accredit the study programs offered by HEIs. This law intends to address the challenges around the large number of study programs offered by HEIs that are not yet accredited by *BAN-PT* due to, among other things, lack of assessors. However, it remains to be seen whether or not these two parallel institutions will be able to accomplish accreditation of all HEI study programs in Indonesia, given the large number that currently exist.

103 Minister of Education Regulation No 187, 1994

104 BAN-PT website. Accessed on 30 August 2012

Finance and Management

Central government funding for higher education is allocated for:[105]

- Public HEIs as a subsidy to cover operational costs, lecturer and personnel salaries, investment and development;
- Private HEIs in the form of professional allowances for lecturers and professors, and funds for investment and development;
- Public and private HEIs in the form of research funding; the law specifies that at least 30% of the government's higher education budget shall be allocated for research. This is to address the low capacity of research and innovation produced by Indonesian HEIs;
- Students in the form of scholarships.

In addition to central government funding, public HEIs are allowed to generate additional income from students and through contracts from regional governments and industry. Public HEIs must provide scholarships to at least 20% of their total student enrollment. Private higher education sector, private higher education institutions may obtain investment or operational funds from central and regional governments, and civil servant lecturers can be assigned to teach at private higher education institutions.

Foreign Universities and International Cooperation

According to the law, Indonesian HEIs can develop international partnerships through cross-border programs, research, and community services. Foreign universities are allowed to provide higher education in Indonesia provided that they are set up under a not-for-profit legal entity (such as a foundation or *yayasan*), they partner with a local university, and they employ local lecturers. However, the law does not specify how foreign qualifications should be recognized in Indonesia. A study in 2011 found that recognition of foreign qualifications is one of the major issues facing both foreign universities that wish to enter Indonesia and Indonesian universities that want to develop cross-border programs, such as twinning and distance learning.[106]

4.3 Higher Education Financing

In 2012, Rp 32.6 trillion (US$ 3.7 billion) was allocated for the Directorate General of Higher Education (DGHE), more than double the 2008 figure of Rp 14 trillion (US$ 1.6 billion).[107] Personnel expenditure is the dominant expenditure each year, as is also the case in basic and secondary education expenditures. A large proportion (65%) of the DGHE budget goes to public universities.

An important issue in Indonesian higher education financing is the relatively small budget assigned for research and development. Discussion is now taking place at DGHE regarding significantly increasing the budget allocation for research and development in the 2013 national budget.[108] In addition to MoEC funding, the Ministry of Research and Technology provides substantial funding for research projects, the greater part of which is conducted by HEIs.

Household spending on higher education goes mainly toward tuition and living expenses. On average, sending one child to university can cost an Indonesian family between Rp 10.6 million (US$ 1,200) and

105 Law 12 of 2012 on Higher Education, Article 89

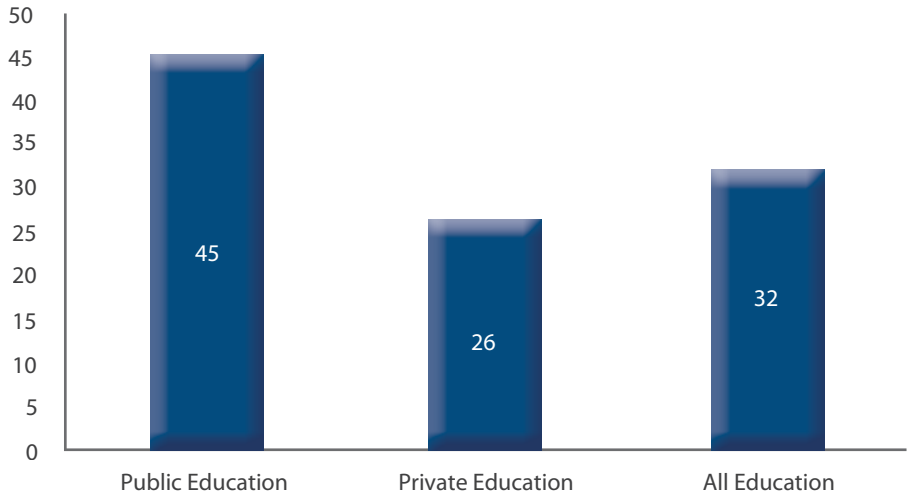
106 British Council. (October 2011). *Partnership Access - Indonesia*. Hong Kong.

107 MoEC. (2012). Postur Anggaran Pendidikan 2011/12.

108 ACDP – 025, Development of Strategies for University-Industry-Government Partnership, August 2012. This study is conducted by PT Trans Intra Asia (TIA), Indonesia, in collaboration with the Institute of Public Administration of Canada (IPAC), Canada.

Rp 19.4 million (US$ 2,200), or up to a third of annual household income (see Figure 29 below), a share likely to be much higher for families from the poorest quintiles. The government has made some efforts to address this issue by offering scholarships, but these do not significantly reduce the gap in enrollment between the richest and poorest quintiles. Reasons for this may be that government scholarship schemes are mainly targeted at students already enrolled in the system (see Box 5 below) and that there is limited funding available for scholarships. According to a World Bank study, scholarships cover only 3% of the cost of attending university and reach only 5.6% of the total student population.[109]

Figure 29. Higher Education Expenditure as a Percentage of Annual Household Income



Source: World Bank. (2012). *Putting Higher Education to Work*.

Box 5. Scholarship Schemes for University Students in Indonesia

The Directorate General for Higher Education (DGHE) provides four scholarship schemes for students. All four schemes have the following in common: they are targeted mainly at students already enrolled in higher education, and when targeted at graduates from senior secondary school, the eligibility criteria are so strict that only a small group of students can benefit from the scholarship program. The four scholarship schemes are as follows:

BIDIKMISI: This was first introduced in 2010 to support students at 104 public universities. Thirty thousand students from public universities were targeted to receive *Bidikmisi* scholarships in 2012. The scholarship is Rp 6 million (US$ 681.8) per student per semester, with some of that amount transferred to the university to cover tuition fees, and some going directly to the students to cover living expenses. Graduates from senior secondary schools (general, Islamic and vocational) are eligible to receive the scholarship, provided that they have academic potential and come from disadvantaged families. However, the scholarship will only be awarded once the student is officially enrolled in a university. The process to get this scholarship involves national selection through the national university entrance examinations and a local selection process set up by the respective university.

BBM and PPA: According to scholarship guidelines issued in 2010 by DGHE, both scholarship schemes aim to reduce the number of students dropping out from universities. The schemes target students with strong academic or non-academic achievement, and students from disadvantaged family backgrounds who are already enrolled in a public or private university. Students with a high grade point average (GPA), or achievement in sports and arts, will be awarded this scholarship. The amount allocated for these scholarships is Rp 300,000 (US$ 34.1) per student per month.

109 World Bank. (2012). *Putting Higher Education to Work*. Page 109

Box 5. Scholarship Schemes for University Students in Indonesia (continued)

OSI: OSI is a scholarship for students who win the international Science Olympics competition. This scholarship is targeted at students from senior secondary schools. A student winning an International Science Olympics gold medal is eligible to receive an OSI scholarship to attend higher education until doctoral level (*S3*); a student winning a silver medal can get a scholarship until master level (*S2*); and a student winning bronze can get a scholarship to finish undergraduate study (*S1*). The scholarship covers registration, tuition, living expenses, books and research.

Source: *Beasiswa dan Bantuan Biaya Pendidikan*, DGHE website www.dikti.go.id. Accessed on 21 Sept 2012.

4.4 Enrollment, Participation and Equity

Table 20 below presents the total number of HEIs under MoEC and MoRA.

Table 20. Distribution of HEIs and HEI Student Enrollments (2010)

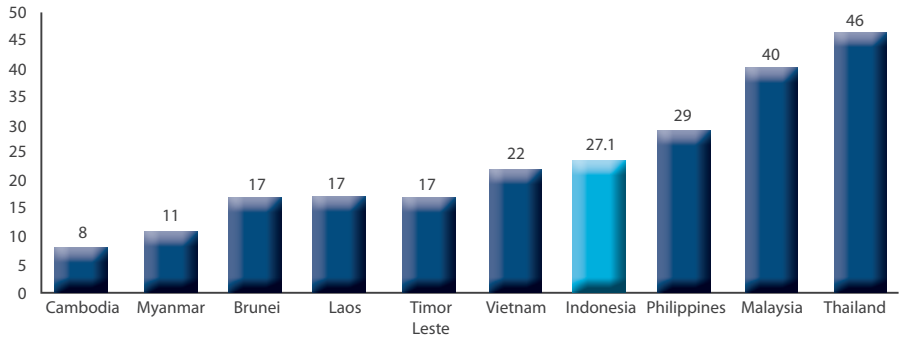
Status	HEI		Islamic HEI		Total			
	Institutions	Students	Institutions	Students	Institutions		Students	
					n	%	n	%
Public*	88	1,812,637	52	242,746	140	3.7	2,055,383	38.3
Private	3,097	2,975,148	557	333,770	3,654	96.3	3,308,918	61.7
Total	**3,185**	**4,787,785**	**609**	**576,516**	**3,794**	**100.0**	**5,364,301**	**100.0**

*Note: *: includes* The Open University (*Universitas Terbuka* or *UT)*
Source: MoEC. *Ikhtisar Data Pendidikan Nasional 2010 and MoRA. Buku Statistik Pendidikan Islam 2010*

Indonesia's higher education landscape is characterized by a growth in provision by private institutions. Of the 3,794 total higher education institutions, 96.3% are private. However, although public institutions represent only 3.7% of the total, they account for 38.3% of enrollments.

When compared to other countries in ASEAN, Indonesia's Gross Enrollment Rate (GER) for higher education is relatively low. Figure 30 shows that only 27.10% of young people in the 19-23 age group were enrolled in higher education in Indonesia in 2010, which is half of Thailand's GER. Nevertheless, Indonesia's GER is higher than those of Vietnam, Timor Leste, Laos, Brunei, Myanmar, and Cambodia.

Figure 30. Gross Enrollment Rates – Higher Education in ASEAN (2010)



Source: UNESCO Institute for Statistics website, accessed on 1 July 2012

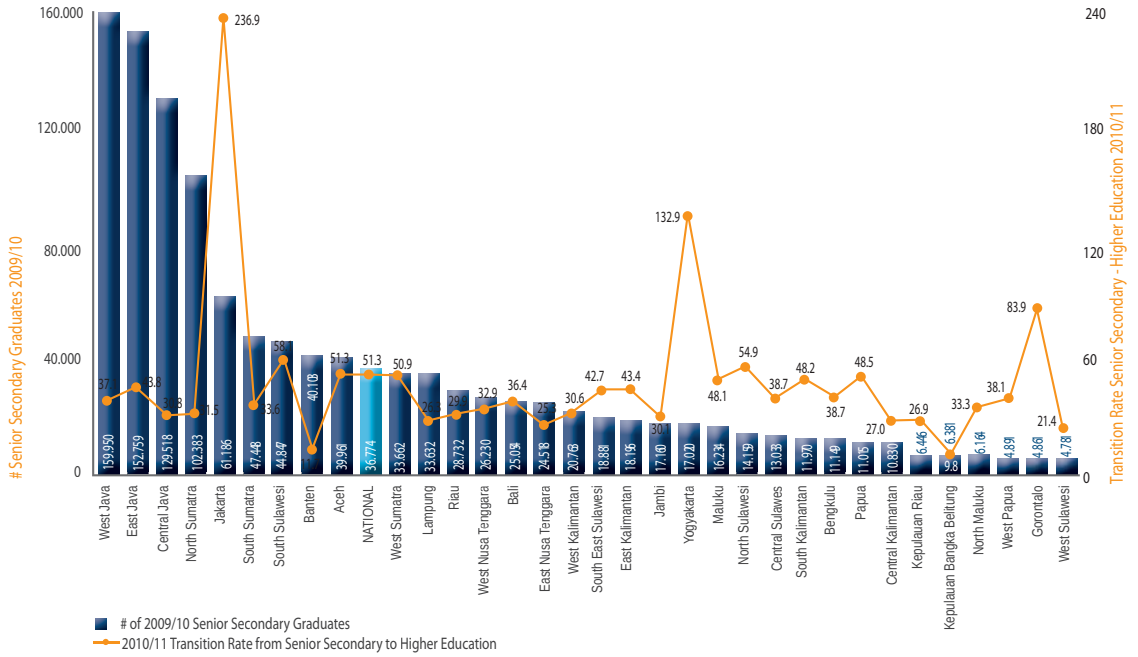
The transition rate from senior secondary to higher education has increased significantly over the past few years, from 35.3% in 2006/2007 to 51.3% in 2010/2011.[110] This means that more than half of the

110 MoNE, internal data, 2012.

2009/2010 senior secondary graduates continued their education at HEIs in the following academic year. Growth in the transition rate is likely to continue, as the government plans to extend free education up to senior secondary level by 2019/2020, which will, in turn, increase future demand for higher education.[111]

Geographical disparity in terms of access is also a feature of Indonesia's higher education landscape. Generally Java, particularly Jakarta and Jogjakarta, is perceived to offer better quality higher education, which leads to a very high transition rate in those two provinces, as shown in Figure 31 below. Parents from other provinces often choose to send their children to these two cities despite the additional living costs that they have to bear.

Figure 31. Transition Rate from Senior Secondary to Higher Education by Province (2009/10)



Source: MoNE. *Ikhtisar Data Pendidikan Nasional* 2009/10.

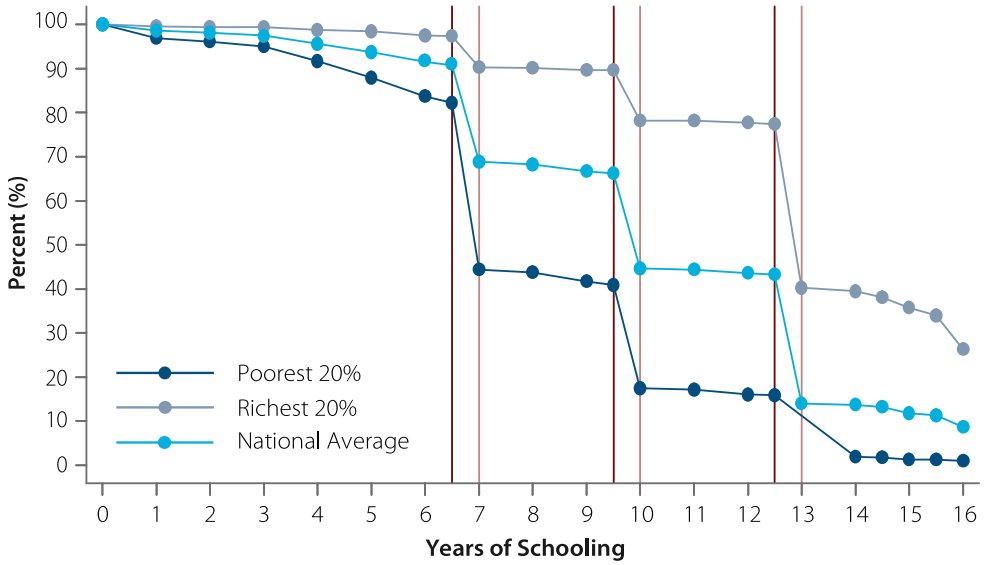
Higher education enrollment statistics highlight several important issues related to access and retention, particularly regarding the poorest group of students (refer to Figure 32).

The first concerns enrollment rates. It is clear that there is a very wide gap in enrollment rates between the richest 20% and the other four quintile groupings.

A closer examination of the enrollment rates of the five quintile groupings reveals that the enrollment rate for the highest quintile decreases more sharply over time compared to the other four quintile groupings. This suggests that financial capacity may make a difference for HE entrance, but that this capacity alone is not sufficient to sustain longer term enrollment of the highest quintile in the HE system.

111 MoEC. Strategic Plan 2010 – 2014.

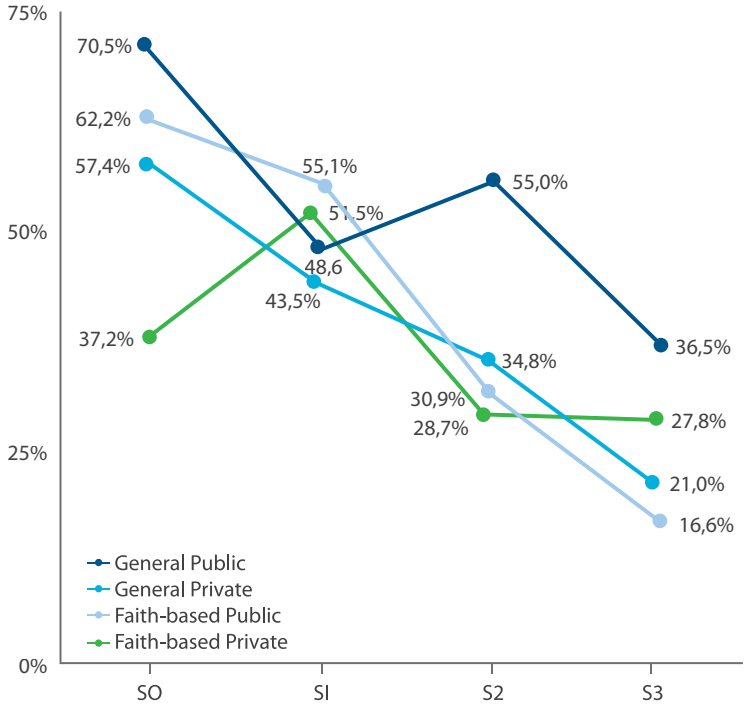
Figure 32. Attainment Profile of 27 Year Olds (2010)



Source: *SUSENAS* various years quoted from World Bank (unpublished). *Spending More or Spending Better*

A more detailed observation of transition rates indicates that a smaller percentage of students from the lowest quintile stop their schooling at that point compared to the other four quintile groupings – in other words, a higher percentage of students from the poorest quintile continue their higher education studies compared to students from the other quintiles. While any conclusions are speculative, this might indicate that the government's pro-poor policy through the provision of scholarships may benefit this poorest group.

Figure 33. Female Enrollment by Type of Institution and Level (2009/10)



Source: MoEC (2009/10). *Rangkuman Statistik Pendidikan 2009/10.*

Gender: Gender inequality increases as students move up through the various levels of HE, although there are variations between public and private institutions. As Figure 33 shows, female students comprise the majority at the diploma level (S0) in most institutions (except in private faith-based institutions). However, the ratio of females to males tends to fall at each level above that. By the time the highest level is reached – PhD or *S3* – women constitute between 17% (in faith-based public institutions) and 36% (in general public institutions) of total enrollments. The reasons for this drop deserve further study, and may include social attitudes, and economic and family related factors.

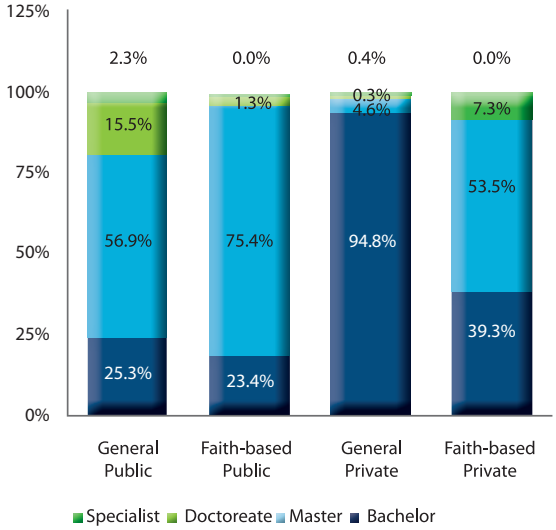
***Public vs. Private Higher Education*:** As was mentioned previously, public institutions under MoEC, which account for about 6% of the total number of HE institutions in the country, are responsible for about 47% of total HE enrollments. With the exception of a few large private institutions such as Bina Nusantara University, Trisakti University, and Gunadarma University, most private institutions tend to be much smaller. The average size of public institutions under MoEC in terms of enrollments is 25 times the average size of private institutions, while the size of those under MoRA is six times as large.

A small private HE institution without a government subsidy depends largely on students' tuition and other fees to meet the costs of all education-related activities. With a very small budget, it is doubtful whether the institution would be able to attract lecturers of good quality and provide adequate teaching and learning support. The government has now imposed a moratorium on the establishment of new HE institutions, at least until August 2014.[112]

4.5 Personnel Issues

Currently about 38% of lecturers have master's degrees, doctorate degrees, or specialist degrees at the master or doctorate level. Distribution across general and faith-based public/private institutions varies significantly. While both general public and faith-based public HEIs have a low percentage of lecturers with only bachelor's degrees (25.3% and 23.4%, respectively), the share of lecturers with doctorates at public HEIs is more than 12 times that of faith-based institutions.

Figure 34. Lecturers by Educational Attainment (2009/10)



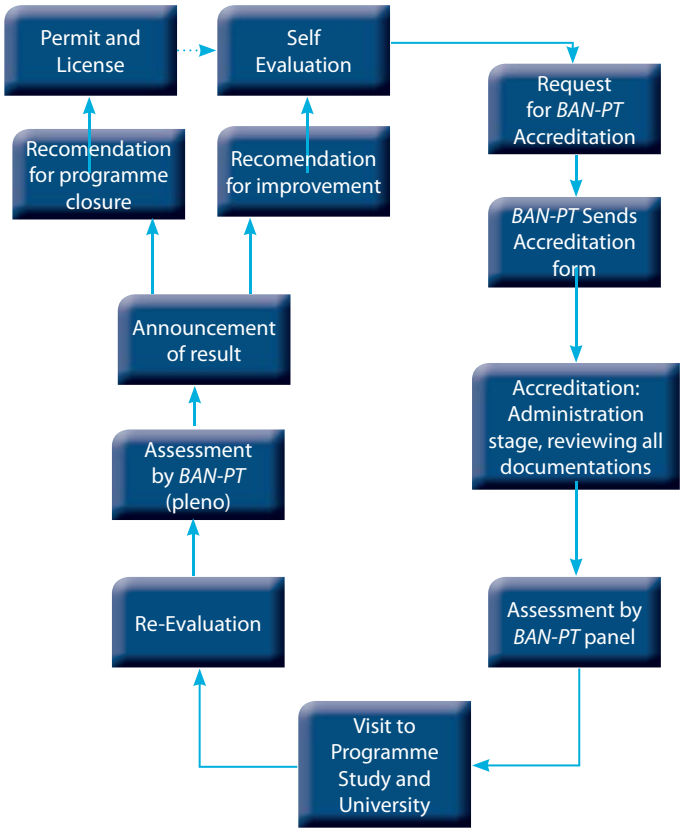
Source: MoEC. 2011

112 http://edukasi.kompas.com/read/2012/08/20/19401760/ *Pemerintah.Hentikan.Pendirian.Perguruan. Tinggi.Baru.* Accessed on 21 August 2012.

4.6 Quality of Higher Education

The National Accreditation Board for Higher Education (*BAN-PT*) plays an important role in assessing the quality of higher education in Indonesia. The quality assessment process begins with self-evaluation, which is conducted by those responsible for a particular study program within the university, and ends with recommendations for improvement or the closing of the program. Figure 35 illustrates the accreditation process cycle:

Figure 35. Higher Education Accreditation Process



Source: BAN-PT. (2012). *Proses Akreditasi*. BAN-PT website, accessed on 30 August 2012.

Following the self-evaluation, the *BAN-PT* then conducts the accreditation by assessing the universities in terms of two main areas:

- *Institutional capacity,* which includes [i] eligibility, integrity, vision, mission, and targets, [ii] governance, [iii] management, [iv] human resources, [v] campus facilities, [vi] finance, and [vii] information systems;
- *Effectiveness of education delivery*, which includes [i] student input, [ii] curriculum, [iii] learning system, [iv] research, publication, other innovative projects, and community services, [v] quality assurance system, [vi] academic situation, [vii] graduate output, and [viii] quality of study programs.

According to the 2012 *BAN-PT* report, the overall quality of many HEIs in Indonesia is still low. Including all programs offered in public and private HEIs, there are a total of 14,489 higher education study programs offered to students throughout Indonesia, with public institutions leading the way in terms of quality (with the exception of a few well-established private universities). A significant proportion (20.5%) of the total number of study programs has not yet been accredited, due to the limited number

of assessors and the large number of the study programs that need to be assessed; more than half of these (67%) are private.

Table 21. Distribution of Non-Accredited and Accredited HEIs' Study Programs (2012)

	Not Accredited	Accredited	Total
Diploma (D1-*D4*)			
Public	269	730	999
	26.9%	73.1%	100.0%
Private	434	1,678	2,112
	20.5%	79.5%	100.0%
Undergraduate (S1)			
Public	587	2,238	2,825
	20.8%	79.2%	100.0%
Private	1,574	5,458	7,032
	22.4%	77.6%	100.0%
Postgraduate – Master and PhD (S2-S3)			
Public	166	828	994
	16.7%	83.3%	100.0%
Private	56	471	527
	10.6%	89.4%	100.0%

Table 22. Accreditation Results of HEIs' Study Programs (2012)

	Accreditation Result				Total
	A	B	C	D	
Diploma (D1 – *D4*)					
Public	77	417	236	0	730
	10.5%	57.1%	32.3%	0.0%	100.0%
Private	37	485	1,155	1	1,678
	2.2%	28.9%	68.8%	0.1%	100.0%
Undergraduate (Sarjana S1)					
Public	514	1,212	512	0	2,238
	23.0%	54.2%	22.9%	0.0%	100.0%
Private	246	1,933	3,279	0	5,458
	4.5%	35.4%	60.1%	0.0%	100.0%
Postgraduate – Master and PhD (Sarjana S2-S3)					
Public	336	397	95	0	828
	40.6%	47.9%	11.5%	0.0%	100.0%
Private	30	222	219	0	471
	6.4%	47.1%	46.5%	0.0%	100.0%

Source: BAN-PT. *Hasil Akreditasi Institusi Perguruan Tinggi*. BAN-PT website, accessed on 30 Aug 2012

Accreditation results provide a picture of the differences in quality of the study programs offered by public and private HEIs (refer to Table 22). At the diploma level, 67.6% of the study programs provided by public HEIs have been accredited at either A or B level, compared with just 31.1% of the programs provided by private HEIs. Similarly, at the *S1* level, 77.2% of the public HEI study programs have an A or B accreditation, compared with only 39.9% of private HEI study programs. At the *S2*–S3 level, the difference between public and private HEIs is more pronounced. At this level, 40.6% of the programs provided by public HEIs have an A accreditation, compared with only 6.4% for the programs provided by private HEIs.

In order to improve quality, the DGHE encourages HEIs to gain international recognition by supporting university researchers in publishing research papers in reputable international journals. In the past

decade, the number of research papers published by Indonesian researchers in partnership with international colleagues has doubled, from 578 research papers in 2000 to 1,142 papers in 2008. However, few researchers based at Indonesian HEIs produce research papers without international cooperation, which suggests limited domestic research capacity.[113]

In 2012, four Indonesian universities were ranked in the QS Asian University Ranking[114]. These universities are the University of Indonesia (59th), the Bandung Institute of Technology (113th), Gadjah Mada University (118th), and Airlangga University (135th).

4.7 Relevance of Higher Education

In 2011, the Government of Indonesia issued the Master Plan for Acceleration and Expansion of Indonesia's Economic Development (MP3EI) for 2011-2025. The plan is designed to provide a framework for Indonesia's transformation into one of the ten largest economies in the world by 2025, which is to be achieved by sustaining real national economic growth at 7%-9% per year.[115]

Implementation of MP3EI will include eight main programs, which consist of 22 main economic activities. The implementation strategy will integrate three main pillars:

- Developing the regional economic potential in the Six Indonesian Economic Corridors (geographical areas with specific economic characteristics);
- Strengthening national connectivity locally and internationally;
- Strengthening human resource capacity and national science and technology to support the development of the main programs in all economic corridors.

According to MP3EI, in addition to contributing to economic development through creating high quality and productive human capital, higher education also plays a critical role through research and innovation. To improve higher education capacity in research and innovation, MP3EI envisages that the government will create and strengthen links between higher education as a source of innovation, business as the user of innovation, and government as regulator/facilitator (MP3EI, page 43).

A recent study on university-industry-government partnerships found the following:[116]

- A number of universities have stepped up efforts to procure training contracts from various industry clients.
- More universities have begun the process of patent applications with government support. In 2012, the Directorate General for Intellectual Property granted 126 patents to 16 universities. However, it is unlikely that these patents will lead to commercialization in the near future. Generating income from Intellectual Property Rights (IPR) requires much more sophistication on the part of universities.
- Limited budget allocated for research and development weakens the capacity of universities to produce innovation.
- Many universities are developing their research strategies in isolation, assuming they know the needs of industry.

Figure 36 shows that among middle-income countries, Indonesia has the most uneven distribution of students across disciplines. Extremely large shares of higher education students pursue degrees in [a] social sciences, business, and law, [b] humanities and arts, and [c] education. Far fewer students study [d] science, [e] agriculture, [f] engineering and manufacturing.

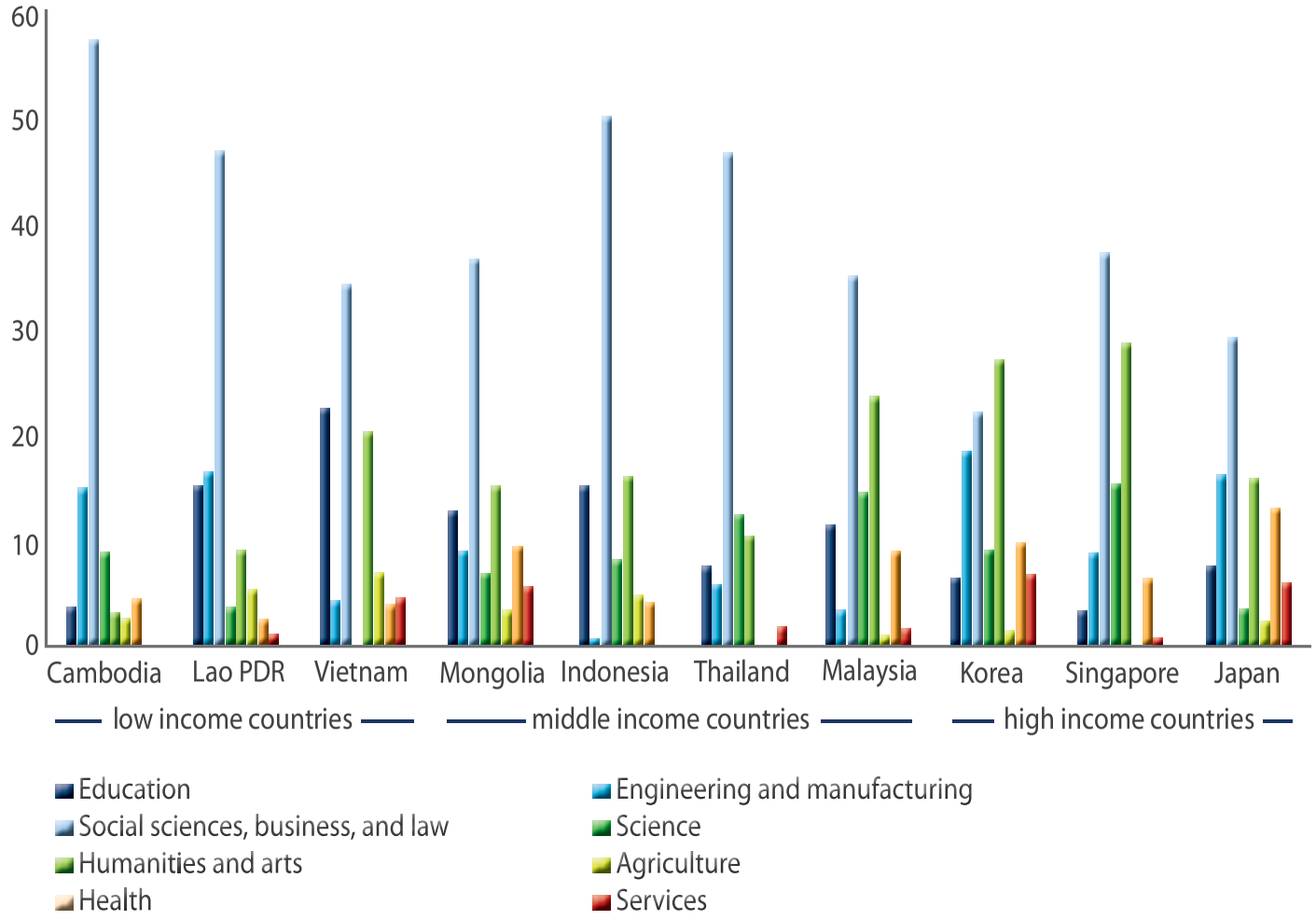
113 British Council. (2011). *Partnership Access* – Indonesia. Hong Kong.

114 The QS Asian University Rankings, part of World University Rankings, is a ranking of the Asia's top universities by Quacquarelli Symonds that has been published annually since 2004. QS World University Rankings website accessed on 27 Aug 2012: http://www.topuniversities.com/university-rankings/asian-university-rankings/2012?page=5

115 Coordinating Ministry for Economy, (2011). *The Master Plan for Acceleration and Expansion of Indonesia's Economic Development (MP3EI) 2011-2025*, page 10.

116 ACDP, 2012: *Development of Strategies for University-Industry-Government Partnership*

Figure 36. Proportion of Higher Education Enrollments by Field of Study (2008)



Source: World Bank. (2012). *Putting Higher Education to Work*. p. 69[117]

117 World Bank. (2012). Putting Higher Education to Work. page 69.

The MP3EI has provided a platform to transform Indonesia's higher education institutions into ones that are more responsive to the needs of industry. The six Indonesian Economic Corridors have to be supported by HEIs that can supply relevant skills.

Table 23 shows the distribution of HEIs (university and polytechnic) clustered in parallel with the Six Indonesian Economic Corridors.

Table 23. Regional Industry Profile and Distribution of Higher Education Institution

Indonesian Economic Corridors	Specific economic characteristics	Cluster of public higher education institution		Cluster of private higher education institution	
		University	Polytechnics	University	Polytechnics
Sumatra	Plantation and energy	16	7	762	17
Java	Industry support and services	23	9	1102	68
Kalimantan	Mining and energy	4	2	84	7
Sulawesi, North Maluku	Agriculture, plantation, fishery, energy, and mining	8	4	336	6
Bali, NTB, NTT	Tourism and agriculture	6	5	151	11
Maluku, Papua	Agriculture, fishery, energy, and mining	5	3	130	5

Source: MP3EI[118] and ACDP-025[119]

In the context of acceleration of economic development and developing stronger links between HEIs and industry, it is essential to ensure HEIs are capable of [a] identifying the technical skills required to meet emerging needs, and producing graduates with these skills, [b] supplying a diverse pool of human resources with a broader set of skills, transferable across different kinds of employment (math, literacy, critical thinking, problem solving, communication, and organization), and [c] developing relevant research capacity to support different industries with innovations.

118 Coordinating Ministry for Economy, (2011), pp 46-47

119 ACDP-025: Development of Strategies for University-Industry-Government Partnership, page 12


TOSHIBA

Chapter 5
Teaching and Learning

The major changes in education in Indonesia brought about by the process of decentralization over the past decade have included a major shift in the dominant paradigm related to teaching and learning. The development and refinement of national standards, the ongoing move from a content-based to a competency-based curriculum, and the "institutionalization" of a student-centered active teaching and learning model under school-based management (*Manajemen Berbasis Sekolah* or *MBS*) are all indicative of this fundamental shift.

These developments have created new challenges – for example, many teachers have struggled to adopt the relatively new competency-based curriculum. Moving from a teacher-centered, rote learning approach to a student-centered approach, which encourages questioning and creativity in the classroom, has also been challenging for many teachers. Effective assessment of learning outcomes, particularly through national examinations, also remains a key challenge.

This chapter will explore these key areas by describing the past and current situation in terms of relevant National Education Standards. The chapter will then explore the key issues related to teaching and learning, including tensions surrounding attempts to change an institutional culture that promotes rote learning and an assessment system that encourages memorization. Finally, an 'experiment' in introducing a new type of school –International Standard Schools – will be outlined.

5.1 Standards

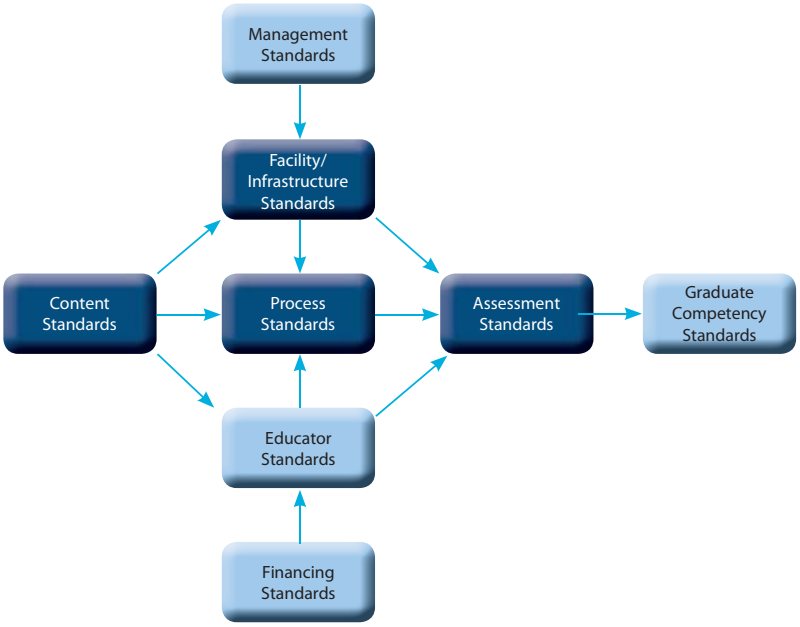
The paradigm shift in educational development policy under decentralization has been characterized by a shift in the focus of priorities from access to quality improvement. This change was signaled by the promulgation of the National Education Standards (*Standar Nasional Pendidikan* or *SNP*) through Government Regulation (GR) No. 19/2005 under Education Law No. 20 of 2003. This GR establishes eight education standards: 1) content standards, 2) process standards, 3) standards for educators and educational personnel, 4) facility and infrastructure standards, 5) management standards, 6) financing standards, 7) assessment standards, and 8) graduation competency standards. These standards apply to both basic and senior secondary education levels. Figure 37 below illustrates the connections among these standards in the *SNP*.

In addition to these eight national standards, Minimum Service Standards (*Standar Pelayanan Minimum* or *SPM*) have been developed to ensure compliance with *SNP*. The 27 *SPM* for basic education were established through Minister of National Education Regulation No. 15 of 2010, which stipulates *SPM*

at the district and school levels. The standards include providing classrooms, qualified, competent teachers who are supported by school supervisors and principals, high-quality lesson plans, effective student assessment practices, sufficient books, and a range of other requirements.

This chapter will examine teaching and learning, by focusing on relevant aspects of four (highlighted in green in the diagram below) of the eight National Education Standards – content standards, textbooks (as an aspect of facility and infrastructure standards), process standards and assessment standards. Other standards are explored in detail elsewhere in this report.

Figure 37. Eight National Education Standards



Source: Government Regulation No. 19 of 2005.

Improving the quality of education demands improving the whole teaching-learning process, not just improving the teaching itself. A whole range of factors contribute to effective teaching and learning, including a relevant curriculum, quality educators, community support, and complete facilities and infrastructure, not to mention healthy, well-nourished and protected students. A supportive and accountable management system, adequate financing, and an effective means of assessing learning outcomes are also key factors.

Compliance with education standards is a requirement for the functioning of a high-quality learning process. Yet various research indicates that compliance with these standards remains variable. For example, while most teachers have had some exposure to training in student-centered teaching and learning and are familiar with the competency-based curriculum, many still do not apply this in their classrooms, where memorization and rote learning remain the norm. A multi-level study by Erry Utomo in 2005 found that while teachers claimed to know what the competency-based curriculum is, in actual classroom implementation, these teachers were "lost", returning instead to the former curriculum, which they were more comfortable teaching.[120]

120 Utomo, E., Ph.D. (2005). *Challenges of Curriculum Reform in the Context of Decentralization: The Response of Teachers to a Competence-Based Curriculum (CBC) and its Implementation in Schools*. Dissertation. University of Pittsburgh.

5.2 Curriculum

Content standards in terms of teaching and learning relate mainly to curriculum. Curriculum has undergone two quite fundamental changes over the past decade: the orientation of curriculum and the decentralization of curriculum. The change in orientation is from content-based to competency-based curricula. Curricula no longer consist of a collection of materials and content that students must master, but rather the competencies that they must acquire. The new curriculum structure is based upon basic competency standards and success indicators, and the content (study material) follows the competencies that the students must acquire (for a comparison of the previous and revised curricula, refer to Table 24 below).

While a full discussion of the distinctions between a content-based and competency-based curriculum is beyond the scope of this report, this significant change does represent a move away from the idea that curriculum is mainly implemented by having students reproduce theoretical knowledge and memorize facts (the conventional knowledge-based approach). Rather, it defines competencies that students are expected to achieve at various levels within the education system that involve "*a combination of integrated skills, knowledge, attitudes and values displayed in the context of task performance*".[121] Effective implementation of this competency-based curriculum requires a set of competencies on the part of teachers (refer to *Chapter 6*: *Teacher Management and Development* for a more detailed discussion of this aspect).

Table 24. A Comparison of the 1994 and 2004 Curricula

1994 Curriculum	Revised Curriculum
Similarities	
• nine year compulsory learning • emphasis on abilities of reading, writing, and arithmetical functions • essential concepts and materials in each subject to achieve competences • local content curriculum • 45 minutes allocated for each learning hour in every level of school	• nine year compulsory learning • emphasis on abilities of reading, writing, and arithmetical functions • essential concepts and materials in each subject to achieve competences • local content curriculum • 45 minutes allocated for each learning hour in every level of school
Differences	
• centralist • contains no standardized competences • no activities to familiarize students with content and concepts • no ICT • multiple-choice assessment • thematic approach for grades 1 & 2 students of primary school (recommended only) • no continuity of competences • no curriculum diversification • syllabus developed by the local education authority or school depending on needs	• decentralist • contains standardized competences • integrated and programmed activities to make students familiar with content and concepts • introduction of ICT • classroom-based assessment • thematic approach for grades 1 & 2 students of primary school (compulsory) • continuity of competence stratification from grades 1 to 12 (over school levels) • curriculum diversification: special and international curricula • gives opportunities to teachers, schools, and local authority for program elaboration and adaptation or analysis of materials

In addition to the change in curriculum structure, the locus of curriculum formulation has changed. This has been characterized by a shift from a centralized formulation of curriculum content to a decentralized, school-based curriculum (*kurikulum tingkat satuan pendidikan* or KTSP), which applies to both basic and

121 Bourgonje, P. and Rosanne Tromp (2011). from *Report of the Teacher Competency Instrument Team*, World Bank, Indonesia, 7 October, 2011

secondary education. The difference between KTSP and the previous curriculum is that it gives schools full authority to prepare their own education plans, referring to the established standards, covering vision, mission, structure and content of the curriculum, study loads, educational calendar, and syllabus development.

One major challenge in formulating KTSP is that, to date, teachers have simply used the curricula prepared by the central government. However, now they are expected to prepare the school's curriculum themselves, including the syllabus for each study subject. As set forth in Minister of National Education Regulation No. 22 of 2007 on Content Standards, the central government is responsible for preparing only the basic structure, competency standards, and the scope of materials.

While in theory KTSP should result in teachers preparing their own syllabus for each subject (and anecdotal evidence suggests that where there is an active teacher's working group – *Kelompok Kerja Guru* or *KKG* – this does happen), in many cases this does not occur. Teachers tend to use textbooks and teacher's guides produced by educational publishing companies that have incorporated the competencies under KTSP, in order to save time and effort.

Another important aspect related to the curriculum in the context of decentralization is that of local content. In 1994, legislation promoting the local content curriculum (LCC or *Mulok*) actually preceded the main move towards the decentralization of education. However, both shares the purpose of aiming to make national standards and subject matter more relevant to students in their regions and localities. According to Bjork,[122] the four defining characteristics for the revised LCC of 1994 were:

- It consists of different subjects;
- It has a share of up to 20 percent of the curriculum;
- It is relevant to the needs of the local community and the world of work;
- It is developed at the local level under the responsibility of the Regional Offices of MoEC/MoNE in accordance with the availability of resources, regional and local development criteria, and employment opportunities.

While many schools have made good use of this opportunity to develop courses relevant to local needs, often LCC is used to provide extra English classes and other courses that may not be directly relevant to student and community needs.

Another development in education has been a move to seek new models that attempt to cater to students with different levels of ability, inlcuding slower learners, those with special needs and, at the other end of the spectrum, those with above-average capability.

For those students with above-average capabilities, the past decade has seen the development of a relatively small number of schools, mostly in urban areas, offering curricula designed to meet their needs. Among the programs these schools offer are: 1) bilingual classes, in which pupils are taught using two languages, mostly science and mathematics subjects taught through the medium of English; 2) "superior classes" (*kelas unggulan*), whose students are strictly selected not only for academic excellence but also through psychological tests; 3) accelerated classes, in which the three-year curriculum is condensed into two years, at both junior and senior secondary school levels; 4) RSBI/SBI (International Standard Schools; for more information on RSBI, see section 5.8).[123]

122 Bjork, C. (2005). *Indonesian Education: Teachers, Schools, and Central Bureaucracy.* New York: Routledge.

123 Approximately 170 RSBI primary schools and 700 RSBI secondary schools were established between 2007 and 2009. In practice, most schools participating in the scheme have established RSBI classes which operate in parallel to standard classes. Eventually, every district in the country will be expected to have one international standard school in each of four categories (primary, junior secondary, senior secondary and vocational secondary). Source: Coleman, H *Are "International Standard Schools" really a response to globalisation?* Paper presented at the International Seminar "Responding to Global

However, the reality is that most schools in Indonesia use a single curriculum and either try to develop their own syllabus, usually in cooperation with nearby schools, based on the required competencies or, as is often the case, use commercially produced textbooks and teachers guides designed around the required competencies from MoEC.

5.3 Textbooks

Access to textbooks is a fundamental necessity of any education system. In Indonesia, the facility and infrastructure standards stipulate that the ratio of books to students, for all study subjects, shall be 1:1 (National Education Regulation No. 24 of 2007). The Minimum Service Standard requires that both public and private primary schools have textbooks for each student covering *Bahasa Indonesia*, mathematics, natural science, and social science. Also under this regulation, primary schools should own at least 100 "enrichment books"[124] and 100 reference books, as well as a model of the human skeleton, a model of the human body, a globe, samples of optical equipment, a Natural Science kit for basic experiments, and Natural Science posters/charts. At junior secondary school level (public and private), MSS requires that each school should have textbooks covering all study subjects with a ratio of one set for each student as well as 200 'enrichment books' and 200 reference books.

The cost of meeting these requirements are substantial. For example, in Tuban District, the total cost of providing a sufficient number of basic textbooks in *Bahasa Indonesia*, mathematics, natural science and social science for the total of 768 primary schools (including 583 public schools, 174 *madrasah* and 11 private schools) was Rp 14.2 billion in 2010 (equal to US$ 1.4 million).[125] This situation is typical of many districts throughout Indonesia. As a result, schools often lack a sufficient number of books, particularly reference and library books.

In 2008, President Bambang Susilo Yudhoyono announced that MoEC would buy the copyright to all school textbooks and make these freely available online, in order to reduce the procurement cost to around one quarter of the current price.[126] However, even with textbooks freely available online, there are still printing costs involved, and many districts do not have reliable access to the internet to enable downloading. Evidence suggests that downloading and printing these books may even be more expensive than purchasing original books.[127]

Overall, the provision of textbooks and supplementary books as required under the facility and infrastructure standards remains a significant challenge.

5.4 Teaching and Learning Methodologies

Government Regulation 19/2005, Article 19, paragraph 1 sets out process standards as follows: "The teaching process in schools shall be conducted in a way that is interactive, inspiring, fun, and challenging, motivates students to participate actively, and provides sufficient space for initiatives, creativity, and independence in line with the talents, interest, and physical and psychological development of the students."

Education Challenges",Universitas Negeri Yogyakarta, Indonesia, 19 May 2009.

124 "Enrichment books" are supplementary reading often related to textbook content. Teachers often require students to purchase these books.

125 District Education Office, Tuban District, 2010

126 Kompas (8 Feb 2008). There are now over 900 books available online which can be downloaded, printed and sold.

127 Maryulis, M. (2008) *Buku Digital Bikin Ribet Anak Sekolah.* http://maryulismax.wordpress.com/2008/07/24/buku-digital-bikin-ribet-anak-sekolah/

The Regulation illustrates another central component of the paradigm change in education: the shift from a teacher-dominated learning process, characterized by rote learning, to a more student-centered, active approach, where the teacher's serves as a facilitator, guide and mentor.

This fundamental change, by encouraging student-centered instruction and greater teacher autonomy and creativity at all school levels (primary, junior and senior secondary), is, as Young points out, a key component of Indonesia's educational decentralization reforms and influenced by global pedagogical theory and research.[128] Although essentially involving the same approach, different terms are used to describe this approach at different levels. At primary level (*Sekolah Dasar* or *SD*), it is commonly referred to as *PAKEM*[129], while the term Contextual Teaching and Learning (CTL) is often used at the junior secondary (*Sekolah Menengah Pertama* or *SMP*) and senior secondary (*Sekolah Menengah Atas* or *SMA*) school levels.

In recent years, the government has introduced a range of innovations in the teaching process, including the introduction of student-centered learning and local curricula. In 1999, MoEC, with support from UNESCO and UNICEF, developed the Creating Learning Communities for Children (CLCC) program in order to support the shift from teacher-centered to learner-centered education, initially at primary school level. In addition to active teaching and learning, the CLCC program, now referred to as School Based Management (*Manajemen Berbasis Sekolah* or *MBS*), aims to strengthen school management and community participation, particularly by establishing and strengthening school committees.

Several studies have found that *MBS* has a positive impact on teaching and learning in the classroom.

Although there has been significant progress, several challenges remain, including the lack of overall implementation guidelines or core indicators, which could help to standardize *MBS* throughout the country, and variation in the quality of implementation (for example, training is often provided in a lecture style to large numbers of teachers at the same time, with limited or no follow-up support).

Several challenges have arisen related to the implementation of these innovations or initiatives from below (from teachers), including the following:

1. Management support, at both the school and the district level, and from school supervisors is sometimes limited;
2. Both school and district budgets often allocate insufficient resources to support development and implementation of innovation;
3. Teachers' ability and commitment to produce instructional innovations are relatively limited;
4. Producing instructional innovations is often felt to be additional work; and
5. Implementation or dissemination of innovations produced by teachers is often limited.[130]

Innovative teaching at the junior secondary level is better known as Contextual Teaching Learning (CTL), though it is not, in fact, significantly different from the active teaching and learning approach under *MBS*. CTL is an educational process aimed at helping students understand the meaning of the study materials they use by relating their studies to the contexts of daily life – personal, social, and cultural. To achieve this aim, this system is comprised of seven components: making meaningful connections, producing significant activities, orderly self-study, collaboration, critical and creative thinking, achieving high standards, and using authentic evaluation (Johnson, 2003).

128 Young also points out that the philosophical foundations of student centred teaching and learning run deeply throughout western pedagogical thought, particularly drawing from that of John Dewey. Michael S. Young, PhD. *(2010). A Case of the Global-Local Dialectic: Decentralization and Teacher Training in Banten, Indonesia.* Dissertation. Florida State University.

129 *Pembelajaran Aktif, Kreatif, Efektif dan Menyenangkan*, (PAKEM) or Active, Creative, Effective and Joyful Learning (AJEL) –these terms are commonly used in Indonesia, but all refer to student-centered teaching and learning.

130 Refer to Chapter 6, Section 6.3 for more on how MoEC is trying to address these issues through continuing professional development (CPD).

One way in which MoEC has been able to get some indication of the quality of teaching and learning in the classroom, at least in terms of the teaching of mathematics, has been by participating in the Trends in International Mathematics and Science Study (TIMSS). Indonesia is one the few non-OECD countries to participate in this international study and has done so since 1999. Indonesian student performance in these examinations has been relatively low – for example, Indonesia ranked 36 out of 48 participating countries in 2007. Its score of 397 was more than one standard deviation below the international average.[131]

While the findings highlighted several positive aspects of teaching and learning, the video study outlined below highlighted the teacher-centered nature of many Indonesian classrooms, with 'teacher talk' dominating the classroom, leaving little time for active participation from students or student-teacher interaction. Recommendations emerging from the study include improving the time management skills of teachers to ensure less time spent on organization work and more on teaching and learning, increasing the amount of time spent on reviewing prior learning before introducing new content, increasing the amount of homework in order to focus lesson time more effectively on learning, increasing verbal communication and interaction from students, and increasing time spent on higher order thinking skills and problems. The World Bank is currently repeating the video study in order to evaluate any changes in classroom interaction and teacher performance over time.

Box 6. Inside Indonesia's Mathematics Classrooms

Following the publication of TIMSS 2007, the World Bank and MoEC worked together to conduct a video study to see what is happening inside mathematics classroom in Indonesia. Involving 100 schools from 17 provinces, the TIMSS video study focused on five key dimensions that frame mathematics classroom practices: structure of lessons, content of lessons, action of participation, instructional practices, and classroom climate and resources. Cross-country comparison was then done to highlight similarities and differences.

The video study found that there are some good practices in Indonesia's mathematic classrooms. For example, students have ample time to work in small groups and practice what they learn. Teachers have relatively more lessons with goal statements and lesson summaries.

Structure of lessons: The average duration of classes in Indonesia (70 minutes) is significantly longer but, less classroom time is dedicated to mathematics than in other countries. As is evident in some classrooms observed, there are concerns that Grade 8 students may have trouble concentrating for such a long period. Time management by teachers is also a critical point here. While teachers in most countries dedicate at least 96% of class time to mathematics, in Indonesia's case it is only 89%. Indonesian teachers also devote less time to problem solving and little time for review, which is very important to check mastery of previous lessons.

Content of lessons: The percentage of mathematical problems in Indonesia's classrooms that are considered to be of high complexity is low. The study categorizes mathematics problems into three types: low complexity (problems that require four steps or less to solve using the usual or conventional procedure), medium complexity (problems that need more than four steps to solve and include one sub-problem), and high complexity (problems that need more than four steps to solve and include two or more sub-problems). The complexity of problems depends on the ability of students and the skill of the teachers. Teachers probably choose easier problems for students of lower ability. But it may also be the case that teachers with limited competency tend to avoid presenting complex problems in class. The study also finds that teachers do not stress choices of alternative solution methods; hence students have few chances of examining different ways of solving mathematics problems.

Action of participation: Students and teachers do not engage in verbal conversations, and the latter dominate the communication. Compared to other countries, Indonesia has a very high teacher-to-students speaking ratio, with teachers speaking 28 words for every word spoken by students. This may signal less active and engaged participation.

131 World Bank. (2010). *Inside Indonesia's Mathematics Classrooms: A TIMSS Video Study of Teaching Practices and Student Achievement.*

Box 6. Inside Indonesia's Mathematics Classrooms (continued)

Instructional practices: Compared to other countries, Indonesia has relatively more lessons that included goal statements and lesson summaries. Theoretically this good practice should lead to improved lesson clarity and delivery. The teaching strategies employed by teachers give an important insight into how students learn to solve problems. The study finds that teachers in Indonesia employ excessive exposition (defined as "teachers lecture while students listen and answer closed questions with no discussion"), while other teaching strategies such as discussion, problem-solving, practical work (equipment or situations in the real world are used to explore mathematical ideas), and investigation (students explore problems in various mathematics situations) are practiced to only a limited extent.

Classroom climate and resources: Indonesia's classroom environment is generally conducive to student learning. The classes are conducted with few outside interruptions. In terms of resources, conditions vary from well-resourced classrooms to classrooms with decaying facilities (see *Minimum Service Standard* for more discussion on facilities in schools). The use of calculators in Indonesian classroom is very limited. This practice is intended to familiarize students with the national examinations, during which they are not allowed to use calculators. This is in contrast with the situation in many other countries where a calculator is seen as more than a mere calculation device, and is therefore commonly used in the classroom. When used properly, it can be an extremely useful tool for learning (for instance in exploring number patterns).

Source: World Bank. (2010). *Inside Indonesia's Mathematics Classrooms: A TIMSS Video Study of Teaching Practices and Student Achievement*.

5.5 Medium of Instruction

The Indonesian language, or *Bahasa Indonesia*, is used in the press, in parliament, the law courts, and throughout the education system as the medium of instruction, including higher education. However, *Bahasa Indonesia* is by no means universally understood. It is just one of 722 living languages that are spoken in Indonesia.[132] In urban areas, 8.5% of those aged between five and nine have no ability in *Bahasa Indonesia*, and, in rural areas, almost 23% of children have no ability in the national language. In the 10-14 age group, the numbers of children without ability in the national language were far fewer, but 4% of rural children in this age group were found to have no ability in *Bahasa Indonesia*.[133]

A recent estimate suggests that approximately 11% of the population are native speakers of *Bahasa Indonesia*. It can be concluded, therefore, that almost nine out of ten children may be studying in a language which is not their home language; moreover, in rural areas almost a quarter of children of primary school age appear not to understand the language at all.[134]

Although *Bahasa Indonesia* is the medium of instruction throughout the education system, there have been some very small scale experiments in using the students' mother tongues as the language of instruction, such as a bilingual approach in early childhood instruction in Ambon[135], There is also anecdotal evidence of teachers in the early years of primary school using the students' mother tongues informally. Education Law article 33 stipulates that local languages can be used as the medium of instruction, at least in early grades.

132 Lewis, 2009

133 BPS, Population Census 2010.

134 The problem varies regionally. In Jakarta, only 0.07% of the whole population aged five and above has no ability in Bahasa Indonesia, while in Papua the figure is 24.01% (BPS data, 2010).

135 Tahapary, M. (2012). P*endidikan Multibahasa Melalui Bahasa Ibu:Pengalaman Terkini,* Paper presented at the Conference on Language, Development & Identity, Bandung, 26-28 June 2012.

The implication of the finding that as many as 9 out of 10 children in the education system might not speak *Bahasa Indonesia* at home, therefore, is that the use of the national language as the exclusive medium of instruction – particularly in early primary education – may be putting children at a disadvantage. This issue is not widely appreciated, but it may contribute to Indonesia's relatively poor performance in the international measures of children's competence. It is significant that the teachers of thirteen-year-old Indonesian children participating in the 2006 PIRLS test of reading estimated that 21% of their pupils would "have difficulty understanding the spoken language of the test" even though the test was written in *Bahasa Indonesia*[136]. The ubiquitous use of multiple-choice questions in tests and examinations at all levels disguises the problem because it does not require active use of the language.

5.6 Multigrade Teaching

There are many remote, difficult-to-access areas in Indonesia with low population density. In such areas, school size if often limited by the small school-age population within each school's catchment area.[137] Take for example, Sampang, a district in the island of Madura, where more than half of primary schools have fewer than 24 students per grade. This can be considered typical of many areas throughout Indonesia.

Table 25. Average Students per Grade - Sampang District, 2008

Number of Students	Average Students Per Grade	Number of Schools	%
Less than 90	15	226	21
90 – 140	15 – 23	333	31
140 – 190	23 – 32	237	22
190 - 240	32 – 40	131	12
More than 240	More than 40	140	13
Total		***1067***	***100***

Source: Sampang District Education Office (2008).

Staffing such schools with teachers for every grade is inefficient and better staffing practices are needed. The introduction of a multigrade teaching and learning approach is considered a way of introducing a better quality of teaching and learning as well as a more efficient way of staffing in small primary schools. Multigrade teaching has been found to be as effective as, or even more effective than, single-grade teaching in terms of increasing student learning outcomes. However, appropriate training for principals and teachers is critical when implementing multigrade teaching. Key training areas include: (1) structuring and organizing multigrade schools; (2) organizing and planning multigrade classrooms; and (3) using appropriate teaching strategies for multigrade classrooms, since traditional teaching methods of lecturing and rote-learning are unsuitable. Effective multigrade teaching requires that the teacher use a more participatory approach, with students actively working on learning tasks[138].

However, there are many challenges in implementing a multigrade teaching approach. The types of small schools in which multigrade teaching is appropriate are usually in remote rural areas where the student numbers are low, access is often difficult, teachers are few and of limited quality, and learning resources are also lacking. However, effective implementation of multigrade teaching requires a critical set of conditions to be in place[139], including:

136 Mullis et al., 2007, p. 198

137 A recent World Bank study estimates that nationally a third of primary schools in Indonesia have less than 120 students (World Bank, forthcoming).

138 See Tranforming Indonesia's Teaching Force, World Bank 2008, p.89

139 Adapted from *Multigrade Teaching in Indonesia: Situational Analysis and Framework for Implementation*, Draft Paper, World Bank, Indonesia July 2011.

- Teachers trained in and applying active, child-centered, participatory, cooperative, and self-paced teaching/learning methodologies;
- Flexible, theme-oriented curricula and materials;
- A flexible, attractive, child-focused classroom environment;
- Strong relevance to the local context and culture; and
- Active parental and community involvement.

Where these conditions do not exist, it may be difficult to implement a multi-grade model without significant levels of external support. With the support of the USAID Managing Basic Education (MBE) program, Pacitan District in East Java has begun to develop 36 multi-grade schools to address the staffing issues of small schools in the district's rural and remote areas.

Box 7. Multigrade Teaching in Pacitan

Pacitan District always has difficulties staffing the small schools in its rural and remote areas. Many have fewer than 60 students, but they are situated a long way from other schools, so merging the schools is impractical. The District has started experimenting with multi-grade teaching by creating 36 multi-grade schools, with support from the USAID MBE program.

First, a workshop was organized to introduce the idea of multi-grade teaching and how to do it in practice. The participants learnt that multi-grade teaching is not about teaching two classes at once, but making a program for the whole class, with different activities to cater for different levels of ability. As such, it does not sacrifice educational quality. Teachers used a theme to develop activities, using competencies from two grade levels. The participants also learnt three strategies that can be used in the multi-grade classroom to differentiate activities and/or outputs. The participants tried these out and then chose one to incorporate into a lesson for practice in their own classrooms.

To help ensure success, the program engages education stakeholders at all levels, from teachers at schools to decision makers at the district education office. Other districts are now learning multi-grade teaching from Pacitan.

More information on multi-grade teaching in Pacitan and other districts can be found at the MBE website http://mbeproject.net/mbe1017e.html or http://mbeproject.net/

5.7 Assessment of Student Learning

5.7.1 Assessment through Examinations

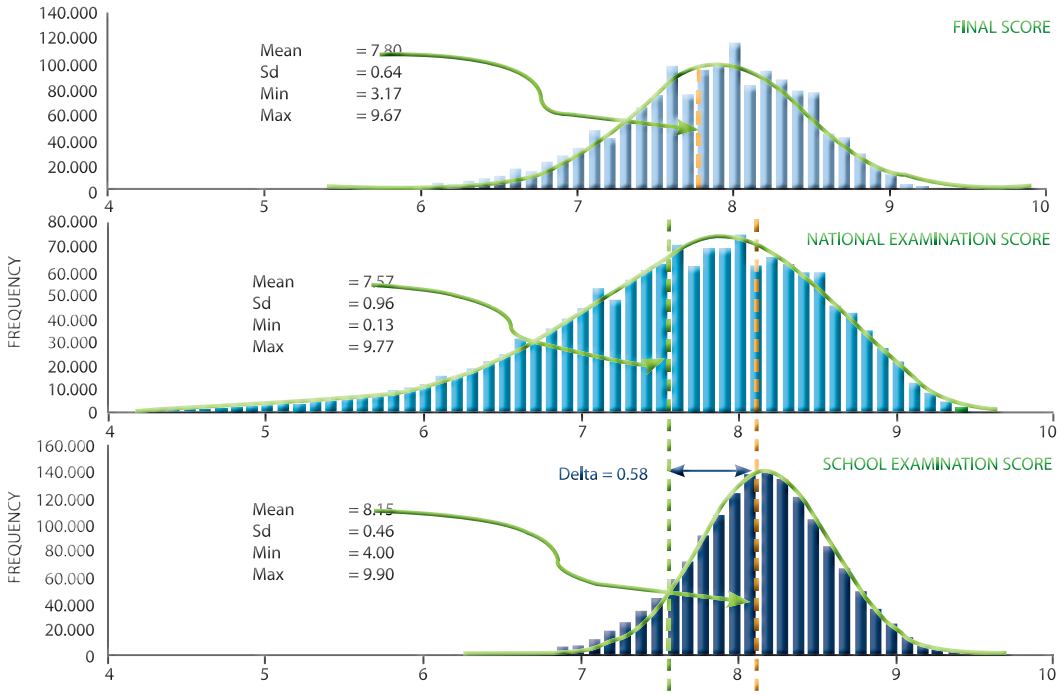
The Indonesian education system has traditionally emphasized in-class examinations to assess student learning outcomes and academic achievement. The results of these examinations have been used both to assess student levels and to ensure that students are sufficiently prepared for the step up to the next grade. In addition, National Examinations are mandated by MoEC at the end of Year 6, at the end of Year 9 (grade 3 of junior secondary school or SMP), and at the end of Year 12 (grade 3 of senior secondary school or SMA).

The changes in curricula and teaching and learning methodologies introduced over the past decade have also included changes in student assessment. In theory, assessment of student learning is directed toward continuous improvement in student performance, however actual practice tends to rely on national examinations. The National Examination (*Ujian Nasional*, *UN*) have long been regarded as the most, and perhaps the only, effective means of assessing student learning. However the examination system faces significant challenges both in terms of its administration and its validity and reliability in assessing student learning outcomes.

Improvements in the assessment system are set forth in Minister of National Education Regulation No. 20 of 2007, which groups the assessment system into three levels: 1) assessment by teachers, 2) assessment by schools, and 3) assessment by government. According to the Regulation, whether students pass a given grade is determined by performance in these three levels of assessment. Assessment by teachers is represented by average grades in report cards for the last three semesters, assessment by schools is represented by the school exams, and assessment by the central government is represented by the results of the UN, with the following formula: average report card grades for the last three semesters and school exam results receive a weighting of 40%, and the UN a weighting of 60%.

Ideally, there should be no significant differences between the levels of assessment, because they employ the same content standards. However, the results of the senior secondary school exams in 2012 did show a significant difference between school exams and national exams. The values for school exams were relatively homogeneous (standard deviation = 0.46) with an average of 8.15, while the national exam scores varied much more (standard deviation = 0.96), with an average of 7.57. These differences are shown in the following diagram.

Figure 38. Distribution of Senior Secondary School Scores (National + School) (2011/12)



Source: *BSNP* presentation (2012).

For those students who did not pass their exams, the difference between the school exams and the national exams is even greater, with a difference of 4.39. This shows that almost all schools gave high grades, both in report cards and in the school exam scores, to students who failed the national exams, with an average score of 7.81 given, while in the national exams failing students received an average score of 3.42.

Differences between school internal examinations and national examination scores is just one of several challenges related to the assessment of student learning outcomes and achievement at all levels within the education system. In addition, there is a tendency to use multiple-choice formats, and thus writing skills are not assessed. As Zulfikar points out, "*[b]ecause the assessment system is in-class examinations, which test students' memorization of particular topics in the lessons, classroom pedagogy follows suit, in*

that teachers are trapped into employing pedagogy that stresses students' memorization skills for success in the examinations. Indonesian teachers are left with no choice but to implement classroom pedagogy with its emphasis on rote learning".[140]

There are also challenges with implementation of the national examinations, related to administration, including the security of examination papers.

5.7.2 Assessment through International Tests

Indonesia has been an active participant in international programs that measure school pupils' levels of competence since 1999 including the Program for Interntaional Student Assessment (PISA), Progress in International Reading Literacy Study (PIRLS) and Trends in International Mathematics and Science Study (TIMSS). Altogether nineteen sets of data related to the competencies of Indonesian children aged between 10 and 15 are available, covering the period from 1999 to 2009. [141] [142] [143] [144] [145] [146] [147] [148] [149] [150] The findings of these surveys provide useful information about the impact that participation in education has on learners. In the discussion that follows the three competence areas – reading, mathematics and science – are considered separately.

Reading

The PISA approach to assessing reading competence recognizes four different types of text (Continuous; Non-continuous; Mixed; Multiple) and four different types of processes (Access & Retrieve; Integrate & Interpret; Reflect & Evaluate; Complex).[151] Approximately half of the questions are multiple-choice (both simple and complex), while the remainder require students to construct their own responses, either brief responses or longer "open-constructed" responses.

The findings of the four implementations of the PISA measurement of children's reading competence are summarized in Table 26.

140 Zulfikar,T. (2009). *The Making of Indonesian Education: An Overview on Empowering Indonesian Teachers.* Journal of Indonesian Social Sciences and Humanities Vol. 2. pp. 13–39.

141 Mullis, I.V.S., Martin, M.O., Kennedy, A.M. & Foy, P. (2007), *PIRLS 2006 International Report*, TIMSS & PIRLS International Study Center, Chestnut Hill MA.

142 Mullis, I.V.S., Martin, M.O. & Foy, P. (2008), *TIMSS 2007 International Mathematics Report*, TIMSS & PIRLS International Study Center, Chestnut Hill MA.

143 Gonzales, P. et al. (2004), *Highlights from the Trends in International Mathematics and Science Study (TIMSS) 2003*. National Center for Education Statistics. Washington DC.

144 Martin M.O. et al. (2000), *TIMSS 1999 International Science Report*. International Association for the Evaluation of Education Achievement. Boston

145 Martin, M.O., Mullis, I.V.S. & Foy, P. (2008). *TIMSS 2007 International Science Report*, TIMSS & PIRLS International Study Center. Chestnut Hill MA.

146 Mullis, I.V.A. et al. (2000). *TIMSS 1999 International Mathematics Report*, International Association for the Evaluation of Educational Achievement. Boston.

147 OECD. (2000). *Literacy Skills for the World of Tomorrow: Further Results from PISA 2000*. OECD and UNESCO. Paris.

148 OECD. (2004). *Learning for Tomorrow's World: First Results from PISA 2003*. Paris.

149 OECD. (2007). *PISA 2006: Science Competencies for Tomorrow's World*. Paris.

150 OECD. (2010). *PISA 2009 Results: What Students Know and Can Do*. Paris.

151 OECD. (2010). p.22

Table 26. Reading Competence of Indonesian Children Aged 15 in 2000, 2003, 2006, 2009

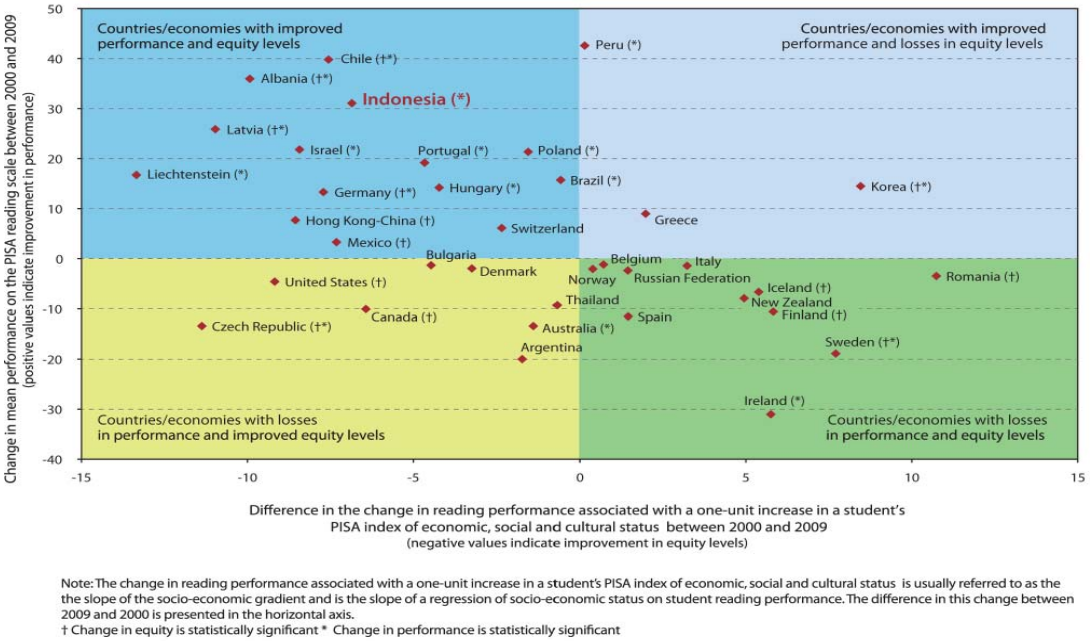
		Overall
2000	*Finland (1st)**	*546*
	Indonesia (39th)	**371**
	*Peru (41st)***	*327*
2003	*Finland (1st)**	*543*
	Indonesia (39th)	**382**
	*Tunisia (40th)***	*375*
2006	*Korea (1st)**	*556*
	Indonesia (48th)	**393**
	*Kyrgyzstan (56th)***	*285*
2009	*Shanghai-China (1st)**	*556*
	Indonesia (57th)	**402**
	*Kyrgyzstan (65th)***	*314*

Note: * Highest performing country; ** Lowest performing country
Source: extracted from OECD, 2000, 2004, 2007, 2010

While overall reading competence continues to be fairly low – with large numbers of pupils clustered towards the lower end of the scale – there has been a gradual improvement over the nine-year period, from an overall average of 371 in 2000 to 402 in 2009.

OECD analysis of PISA reading results (Figure 39) shows that Indonesia has performed highly in terms of the change in performance over this period, and also in terms of equity (i.e. measured by the gap between performance of advantaged and disadvantaged students).

Figure 39. Change in Equity and Performance Levels between 2000 and 2009



Note: The change in reading performance associated with a one-unit increase in a student's PISA index of economic, social and cultural status is usually referred to as the slope of the socio-economic gradient and is the slope of a regression of socio-economic status on student reading performance. The difference in this change between 2009 and 2000 is presented in the horizontal axis.
† Change in equity is statistically significant * Change in performance is statistically significant

Source: OECD (2010), PISA 2009 Results: Learning Trends, Volume V

Science

PISA assesses competence in science through the domains of Knowledge and Skills. Knowledge consists of two sub-domains: Knowledge of Science (including Physical Systems; Living Systems; Earth & Space Systems; Technology Systems) and Knowledge about Science (including Scientific Enquiry and Scientific Explanations). Skills (scientific tasks or processes) include Identifying Scientific Issues; Explaining Scientific Phenomena; and Using Scientific Evidence.[152]

Table 27. Science Competence of Indonesian Children Aged 15 in 2000, 2003, 2006, 2009

		Overall
2000	*Korea (1st)**	*552*
	Indonesia (38th)	**393**
	*Peru (41st)***	*333*
2003	*Finland (1st)**	*548*
	Indonesia (38th)	**395**
	*Tunisia (40th)***	*385*
2006	*Finland (1st)**	*563*
	Indonesia (50th)	**393**
	*Kyrgyzstan (57th)***	*322*
2009	*Shanghai, China (1st)**	*575*
	Indonesia (60th)	**383**
	*Kyrgyzstan (65th)***	*330*

Note: * Highest performing country; ** Lowest performing country
Source: extracted from OECD, 2000, 2004, 2007, 2010

Table 27 summarizes the science competencies of 15-year-old Indonesian pupils in the years 2000, 2003, 2006 and 2009. Mean levels of competence are low – consistently below 400 – and show no clear trend over time. They rose slightly between 2000 and 2003, then fell slightly, and finally, in 2009, fell still further so that the average score at the end of the nine years was twelve points lower than at the beginning.

Mathematics

Competence in mathematics is assessed by TIMSS on two dimensions: Content (subject matter domains) and Cognitive (thinking processes). The subject matter domains are Number, Algebra, Geometry, and Data & Chance. The cognitive domains are Knowing, Applying, and Reasoning; particular emphasis is placed on Applying and Reasoning rather than simply knowing.[153]

TIMSS measurements of competence in mathematics from 1999, 2003 and 2007 are summarized in Table 28. It is not possible to identify a clear trend over this period. The overall level of competence was 403 in 1999, it rose to 411 in 2003, and then dropped to 397 in 2007. Following the publication of the 2007 TIMSS result, MoEC worked with the World Bank to conduct a video study to see what was happening inside Indonesia's mathematics classroom (see Section 5.4, Box 6. Inside Indonesia's Mathematics Classrooms).

152 OECD. (2010). p. 23

153 Mullis et al. (2008). p. 24

Table 28. Mathematics Competence of Indonesian Children aged 13 in 1999, 2003, 2007

		Overall
1999	*Singapore (1st)**	*604*
	Indonesia (34th)	**403**
	*South Africa (38th)***	*275*
2003	*Singapore (1st)**	*605*
	Indonesia (34th)	**411**
	*South Africa (45th)***	*264*
2007	*Chinese Taipei (1st)**	*598*
	Indonesia (36th)	**397**
	*Qatar (48th)***	*307*

Note: * Highest performing country; ** Lowest performing country
Source: extracted from Gonzales et al, 2004; Mullis et al, 2000; Mullis et al, 2008

5.8 International Standard School[154] (RSBI/SBI)

Until 2003, international schools operating in Indonesia were restricted to the children of expatriates.[155] Education Law No. 20 of 2003, article 50, relaxed these restrictions and obligated the central government and/or regional governments to establish "one international standard school" at each educational level (i.e. primary, junior secondary, senior secondary and senior vocational) in every district/city[156].

This was followed by Ministerial Decree No. 19 of 2005, article 61, which specified that the central government should cooperate with regional governments to provide at least one school at the primary level and one at the secondary level that could be "developed to become an international standard school". In the same year, the MoEC Strategic Plan 2005-2009 stated that the main rationale for the establishment of international standard schools was to strengthen Indonesia's international competitiveness.

This was followed in 2007 by government guidelines that, for the first time, defined what is meant by "international standard school" and "international standard *madrasah*" and that laid down precise criteria for quality assurance. The definition states that an international standard school or *madrasah* is: "*A school/madrasah which fulfills all the National Standards for Education and which is further enriched by taking into consideration the education standards of one member nation of the Organization for Economic Co-operation and Development (OECD) and/or another advanced nation which has particular strengths in education such that it achieves competitive advantage in the international forum*".[157]

The guidelines identify a number of areas in which the quality of international standard schools and *madrasah* is to be guaranteed, with indicators for each area. These include, amongst other requirements,: accreditation rank A and accreditation by a school accreditation body in an OECD member nation; science, mathematics and core vocational subject subjects be taught using English; ICT-based learning resources; and links with international standard schools abroad.
Progress in establishing international standard schools that meet the specified quality standard has

154 The International Standard schools described in this section are different from the international schools which typically cater for children of expatriates living in Indonesia, such as the British International School (www.bis.or.id) or the New Zealand International School (www.nzis.net).

155 Coleman, H. (2009). *Teaching Other Subjects Through English in Three Asian Countries.* Page 18. Jakarta: British Council Indonesia.

156 A recent study: ACDP, *Evaluation of International Standard Schools*, November 2012, reported a total of 1,339 international standards schools in Indonesia, unevenly distributed across regions and districts.

157 MoEC. (2007). *Pedoman Penjaminan Mutu Sekolah/Madrasah Bertaraf Internasional Jenjang Pendidikan Dasar dan Menengah*.

been variable. A recent study[158] found that achievement of certain standards is low, in particular those related to use of OECD country standards, including OECD standards pertaining to the curriculum, teaching and learning processes, and the medium of instruction. Use and availability of ICT resources is relatively low. Limited English language competencies of teachers and principals are considered to be a real barrier to implementing standards related to the medium of instruction. A study by MoEC on English language competencies of teachers and principals in 549 international standard schools in 2009 found that the overall picture is of a teacher workforce that is not ready to function in English.The study found that more than half of all teachers possess a level of "novice", a competence which is even lower than "elementary".[159] In addition, the ACDP study found that international standard schools disproportionally serve middle- and upper-income families, despite quota levels for low-income students.

In 2012 the legality of international standard schools was challenged through the constitutional court on the grounds that access is largely related to the ability to pay, that all schools should have equal status, and that the requirement to use a foreign language as the medium of instruction is contrary to Indonesian culture and values. The constitutional court ruling upheld the challenge, enacting a Decree of the Constitutional Court on International Standard School Number 5/PUU-X/2012 dated 8 January 2013. The ruling revoked the special status of international standard schools, giving them the status of regular schools. Since the ruling there has been considerable public debate about how to implement the changes and the specific implications for the operations of the schools.

158 ACDP, *Evaluation of International Standard Schools*, November 2012.

159 MoEC (2009). *Peta Kemampuan Bahasa Inggris Pendidik dan Tenaga Kependidikan Rintisan Sekolah Bertaraf Internasional Berdasarkan Test of English for International Communication (English Competence of International Standard Schools' Education Personnel Based on Test of English for International Communication)*, Dirjen Peningkatan Mutu Pendidik dan Tenaga Kependidikan, Jakarta.

Chapter 6
Teacher Management and Development

In Indonesia there is a strong consensus among government, politicians and the general public that teachers play a key role in improving student learning. Over the years, the country has undertaken major efforts to improve teacher performance. In 2005 these efforts were increased, with the issuing of the Law on Teachers and Lecturers (Law No. 14 of 2005). A key requirement under this law is the increase in the minimum teacher academic qualification from Diploma-2 (two years education after completion of senior secondary education) to an academic bachelor degree (*S1*) or *D4*. A second requirement is to have successfully completed the certification process. The law stipulates that all teachers must meet this requirement by 2015. Further, the law sets minimum competency standards in the areas of professionalism, pedagogy, social skills and personal behavior. The law not only specifies what teachers should be able to do and how to behave, but also addresses the issue of teacher welfare by introducing a set of new professional allowances for teachers who have successfully completed the teacher certification process and for those who work in remote areas.

A recent publication analysing Indonesia's efforts to reform and enhance the quality of teachers (World Bank 2013[160]), the Teacher Law of 2005 is recognized as a momentous landmark that will now need to be followed by moving beyond a focus on teachers' rights and welfare to tackling the underlying objectives of the teacher reforms – improving the quality of education students receive.

> "In one sweep of legistlation, *(the Teacher Law)* confirmed teaching as a "profession" equivalent to other professions, dramatically increasing the income of teachers to be commensurate or exceed those of lawyers and doctors. It attempted to reverse a decades-long decline in the status of teaching and put in place a massive scheme of academic qualification and formal certification which has had an impact on every aspect of the education system, at all levels of government; it mandated a wide-range of other reforms focusing on the entire teacher management and development system of the ministry; and it committed the government to increasingly large financial outlays to reward professional certification which may have serious implications for the ability of the education budget to further expand the system or improve the quality."

This chapter focuses on the situation of teachers at all three levels of education – primary, junior secondary and senior secondary – and describes trends over the past decade, the current situation regarding the teacher workforce, and issues related to teachers that have arisen and are being, or need to be, addressed. Section 1 provides a description of the current teaching force in terms of age and

160 World Bank (2013). Teacher Reform in Indonesia: The Role of Politics and Evidence in Policy Making, page 160.

other characteristics, as well as trends over the past decade. Section 2 explores the adequacy of present teacher supply and whether teacher deployment is effective. Section 3 describes the efforts undertaken by the government to raise the competence of existing teachers, while Section 4 focuses on the efforts undertaken to raise the quality of new teachers entering the profession.

6.1 The Teacher Workforce – Past and Present

The teacher workforce in Indonesia is very large, with over 2.7 million teachers currently employed in schools and madrasahs throughout the country. Yet this large teacher workforce is not a single, homogenous group. It includes a variety of teachers with different statuses, ranging from teachers with civil servant status (PNS) to teachers working on a contract basis with national or district-level governments and teachers working on a contract basis with schools or foundations providing private education. A relatively large proportion of teachers are non-civil servants as shown for MoEC in Table 29.

Table 29. Teachers by Employment Status, MoEC, 2010

School Level	Civil Servant		Non-civil Servant		Total
Primary	1,056,209	64%	588,716	36%	1,644,925
Junior Secondary	344,413	62%	212,492	38%	556,905
Senior Secondary	239,066	54%	201,102	46%	440,168
Total	**1,639,688**	**62**%	**1,002,310**	**38**%	**2,641,998**

Source: Indonesia Educational Statistics in Brief 2010/2011, Ministry of Education & Culture, 2011

The numbers of teachers by level and school (MoEC) and madrasah (MoRA) are shown in **Table 30.**

Table 30. Teachers by School Type under MoEC and MoRA, 2010

School Level	School, MOEC		Madrasah, MORA		Total
Kindergarten	267,576	69%	119,386	31%	386,962
Primary	1,644,925	85%	280,112	15%	1,925,037
Junior Secondary	556,905	67%	280,110	33%	837,017
Senior Secondary	440,168*	77%	131,423	23%	571,591
Total	**2,909,574**	**78**%	**811,031**	**22**%	**3,720,605**

Note: 440,168 Senior Secondary teachers constitute 264,512 SMA/Senior High School teachers and 175,656 *SMK*/Senior Vocational School teachers, all under MOEC.
Source: Indonesia Educational Statistics in Brief 2010/2011, Ministry of Education & Culture, 2011

For many years, teachers in Indonesia were poorly paid in comparison with their counterparts in other countries in the region and in the OECD member countries (see Table 31), even when purchasing power parity and cost of living in each country were taken into account. To supplement their income, it was common for teachers to take a second job, which often resulted in high rates of absenteeism. However, this situation has improved, with regular increases in salary and additional allowances for upgrading of qualifications and teaching in remote areas.

Indonesia has not always had a large number of teachers. Starting from the mid-1970s, the government embarked on a national effort to increase access to primary education through the large-scale construction of primary schools. This required a major increase in the number of teachers, and to address this need, the government introduced an accelerated teacher training program. This program involved providing three years of teacher training for junior secondary school graduates, after which they received a teaching diploma that was equivalent to a senior secondary education diploma.

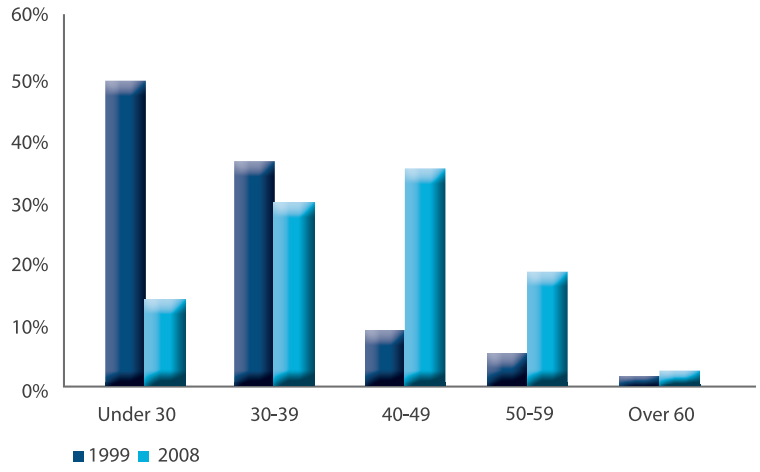
Table 31. Civil Servant Teacher Salary (Selected Countries – 2008)

Country	Primary			Junior secondary			Senior Secondary		
	Starting Salary	Salary after 15 years of experience	Salary at top of scale	Starting Salary	Salary after 15 years of experience	Salary at top of scale	Starting Salary	Salary after 15 years of experience	Salary at top of scale
ASEAN (selected countries)									
Indonesia	1,612	2,041	2,325	1,719	2,325	2,526	1,990	2,575	2,806
Malaysia (2004)	8,389	-	18,798	11,680	-	31,028	11,680	-	31,028
Philippines	5,095	5,624	6,057	5,095	5,624	6,057	5,095	5,624	6,057
Thailand	5,996	11,613	19,689	5,996	11,613	19,689	5,996	11,613	19,689
OECD Members (highest vs. lowest paying country)									
Luxembourg	49,902	68,720	101,707	71,883	89,864	124,898	71,883	89,864	124,898
Hungary	11,216	14,515	19,309	11,216	14,515	19,309	12,855	18,110	24,358

Note: The salaries are expressed in USD as gross salaries excluding bonuses. Data from other ASEAN countries and from later years are not yet available.
Source: UNESCO Institute for Statistics website, accessed on 14 Aug 2012

The significant recruitment and training of new teachers is reflected in changing primary level teacher demographics, specifically in terms of the age. As illustrated in Figure 40 below, the percentage of teachers under 30 years of age has reduced significantly over the past decade, from 50% in 1999 to 13% by 2008, as those hired during the expansion period in the 1970s and 1980s move closer to retirement age. At the same time, the number of new teachers entering the workforce over the past decade has continued to increase relative to student enrollments (refer to Section 6.2 below).

Figure 40. Primary School Teachers by Age (Comparison - 1999 and 2008)



Source: UNESCO Institute for Statistics website, accessed on 14 Aug 2012.

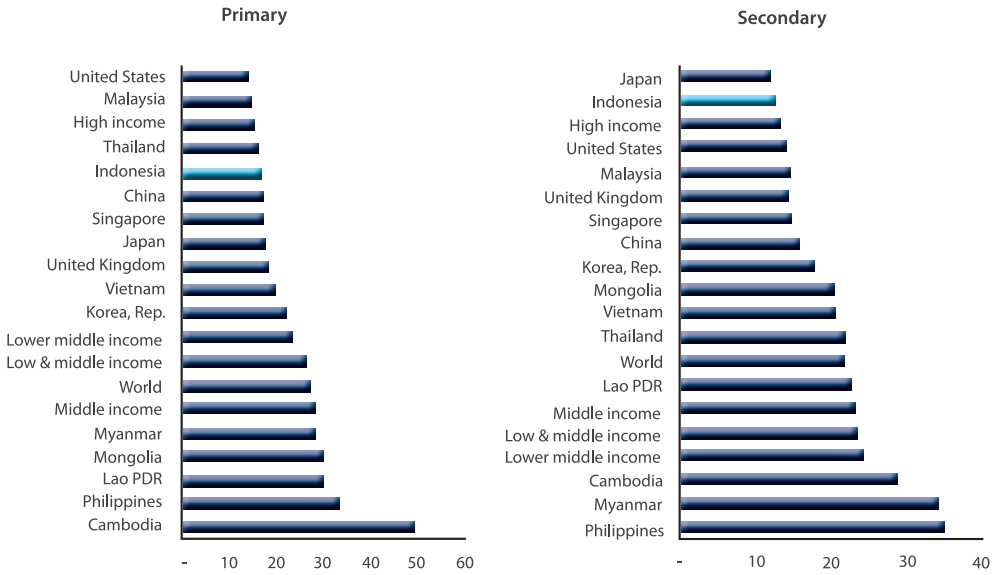
6.2 Teacher Supply and Deployment

6.2.1 Teacher Supply

Student/Teacher Ratios (STR) in Indonesia have been relatively low for a long time in comparison with other countries (refer to Figure 41 below). They have become even lower over the period 2000 to 2009 as teacher numbers have continued to increase while student enrollments have been marked by a relatively

small increase at primary level, though with more significant increases at junior and senior secondary levels. While at first glance, the low student/teacher ratios might be regarded as positive, these figures mask a number of interrelated issues related to teacher recruitment and teacher distribution.

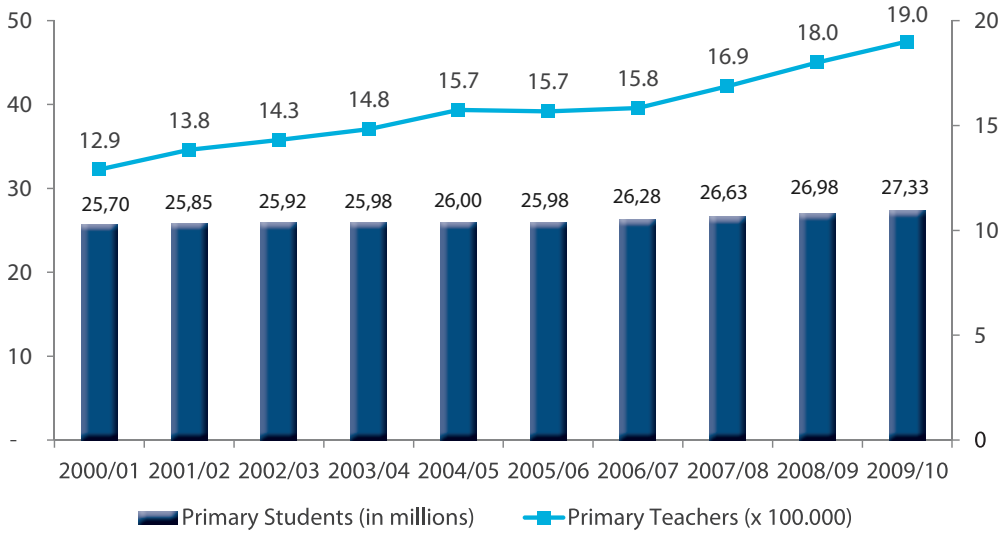
Figure 41. Student/Teacher Ratio (STR) – Countries Comparison



Source: World Bank. (Unpublished). *Spending More or Spending Better*.

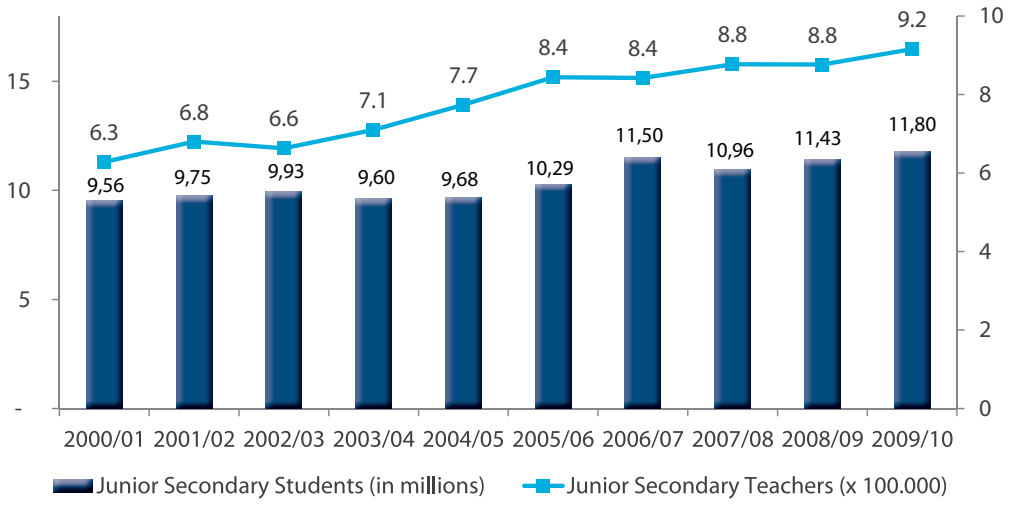
As Figure 42 below indicates, there has been a disproportionate increase in teacher supply relative to the increase in student enrollments at primary, junior and senior secondary levels. While the decade from 2000 to 2010 saw only a 5% increase in the number of students at primary school level, the number of teachers increased by 47% (from approximately 1,290,000 teachers in 2000/01 to 1,900,000 teachers by 2009/10). At junior secondary level, this difference was less marked, though a 23% increase in student enrollments was more than matched by a 46% increase in the number of teachers (from 630,000 teachers in 2000/01 to 900,000 in 2009/10). At senior secondary level, enrollments increased by 49% while the number of teachers increased by 76% (from 410,000 teachers in 2000/01 to 730,000 teachers by 2009/10).

Figure 42. Growth in Primary Student Enrollments/Number of Teachers (2000 – 2010)



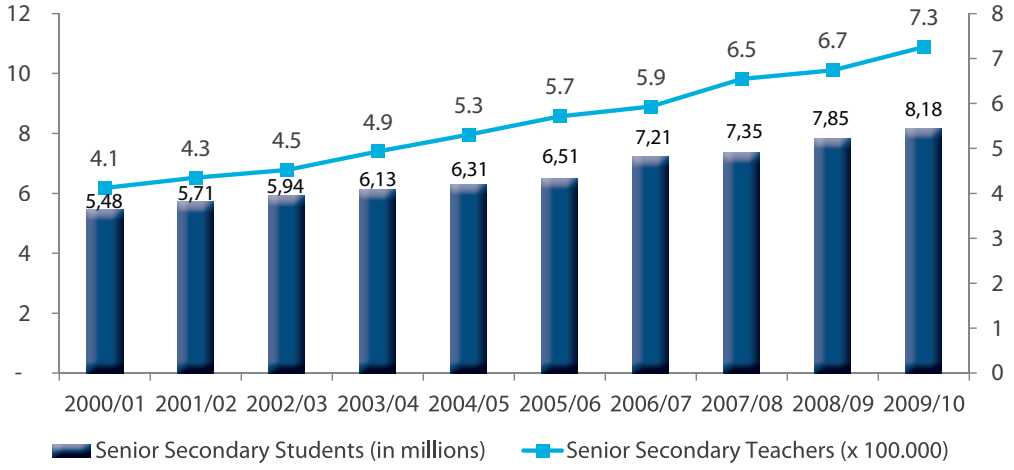
Source: MoEC. *Ikhtisar Data Pendidikan Nasional 2000 - 2010*.

Figure 43. Growth in Junior Secondary Student Enrollments/Number of Teachers (2000 – 2010)



Source: MoEC. *Ikhtisar Data Pendidikan Nasional 2000 - 2010.*

Figure 44. Growth in Senior Secondary Student Enrollments/Number of Teachers (2000 – 2010)

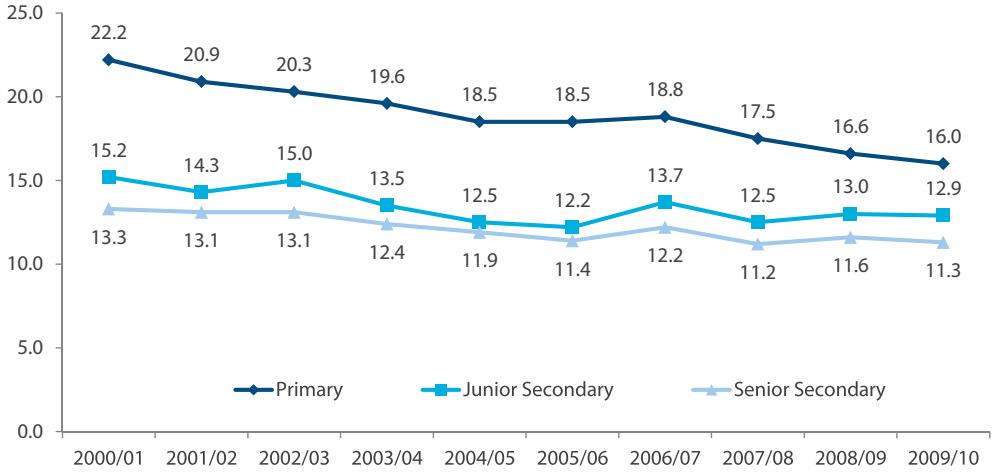


Source: MoEC. *Ikhtisar Data Pendidikan Nasional 2000 - 2010.*

As Figure 45 below illustrates, this mismatch in numbers of teachers relative to numbers of students resulted in a 27% drop in the STR at primary level from 22.2:1 in 2000 to 16.0:1 in 2009. The drop is caused primarily by an increase of approximately 600,000 primary teachers over 10 years compared to an increase of around 1.6 million primary students; in other words, one additional teacher was hired for every three additional students.

At the junior secondary level, there has been a drop in STRs over the same 10-year period from 2000, although it was less pronounced (15%). There was an increase in the number of students (around 2.2 million), which was matched by a 280,000 increase in the number of teachers. At the senior secondary level, the STR also dropped, with student enrollments increasing by 2.7 million and the number of teachers by 310,000.

Figure 45. Changes in Student/Teacher Ratios (All levels, 2000 – 2010)



Source: MoEC. *Ikhtisar Data Pendidikan Nasional 2000 - 2010.*

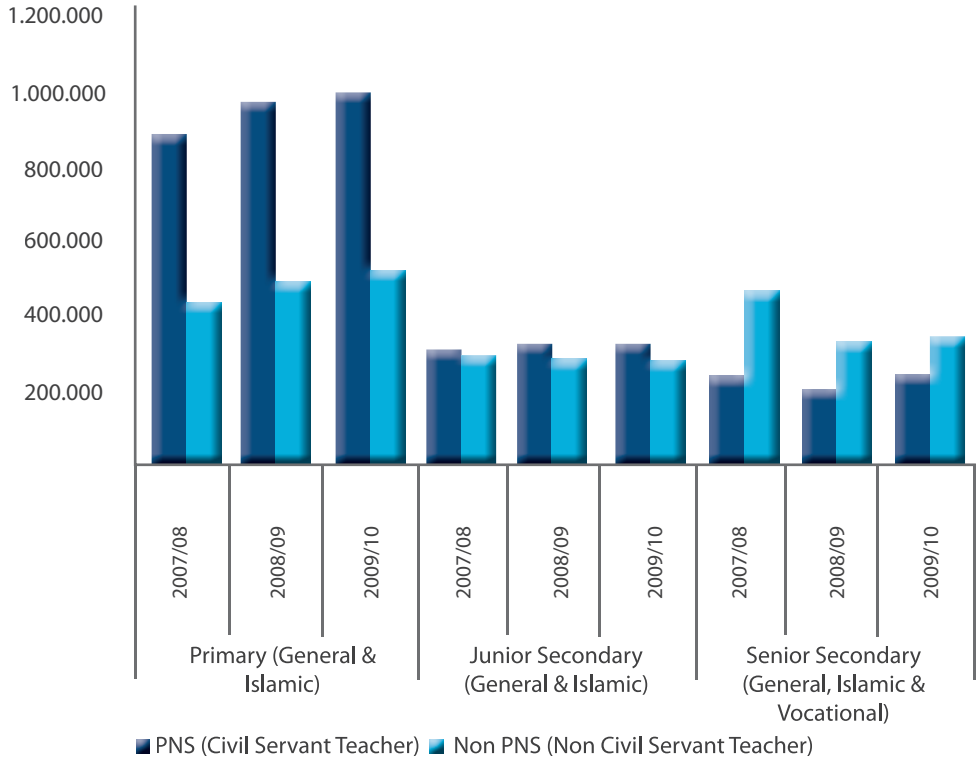
While it might be assumed that both the increase in the number of teachers and lower STRs would indicate smaller class sizes and thus more effective teaching and learning, there are two "hidden" aspects related to the above changes that require further exploration: the recruitment of new teachers and teacher deployment.

Under decentralization, responsibility for teacher recruitment/employment has shifted to the district level. At the same time, the central government sets quotas for the number of civil servant teachers. While quotas for civil servant teachers at all levels have continued to rise (see Figure 46 below), there has been a major increase at the primary level, caused by the large numbers of contract teachers who changed status and became civil servants. Although, logically, this should have resulted in a decrease in non-civil servant teachers this did not happen, as schools continued to hire non-civil servant teachers; in other words, the decrease in non-civil servant teachers.

Furthermore, the devolution of the authority for teacher management to district governments has not been accompanied by an increase in the capacity for teacher management at the district level, particularly with regard to analysis of actual needs by study subject at each level and type of schooling. This is reflected in the large number of districts where there is an oversupply of classroom teachers (seen from the ratio of teachers to number of classes) at the primary level, junior secondary, and senior secondary school levels, given the number of study subjects in the curriculum, the number of classes, and the compulsory workload for teachers. Assuming current levels of primary teachers, STR will only continue to fall due to the decline in the school-age population, as it is predicted that by 2017 there will be 600,000 fewer children of primary school age (7 to 12 years) than in 2010.

It is evident that teacher surpluses lead to inefficient use of resources. In this context, it is useful to note that the education sector in many districts takes up around 30% to 40% of the district budget and that 80% to 85% of this is used for teacher and non-teacher salaries and allowances. Because of the volume and dominance share of these expenditures it is essential that efforts be undertaken to rationalize the teaching force.

Figure 46. Changes in Number of Teachers in Terms of Status and Level (2007 – 2010)



Source: MoEC. *Ikhtisar Data Pendidikan Nasional 2007 - 2010.*

6.2.2 Teacher Deployment

In terms of teacher deployment, the low STRs, particularly at primary level, do not automatically mean that all schools will have the required number of teachers. In fact, there are still many schools that have a shortage of teachers, especially in remote regions, border regions, and outlying areas.

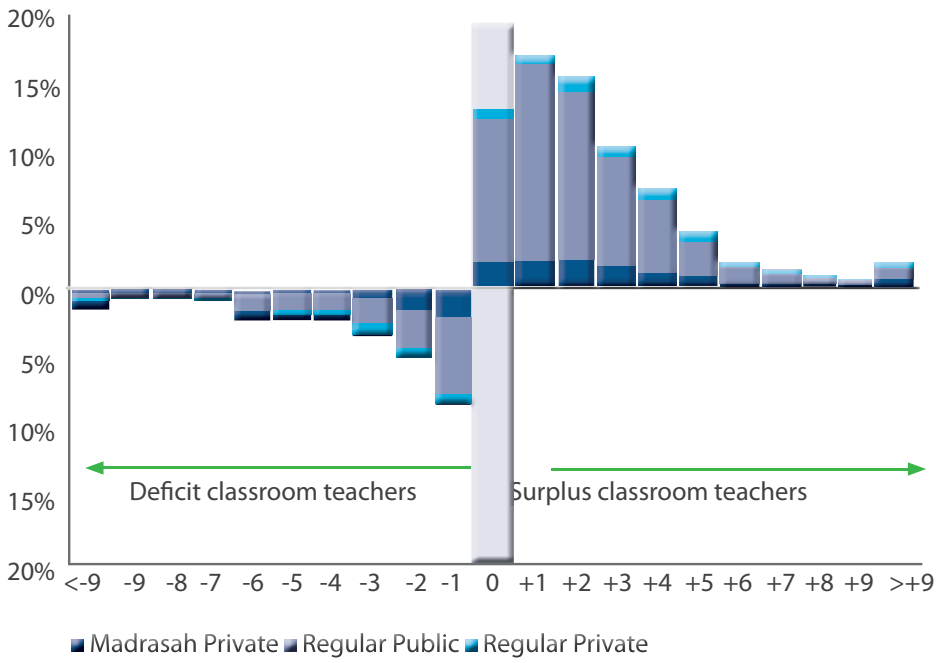
Most districts do not have effective teacher management systems to accurately analyze the surplus or deficit of teachers. District Education Offices tend to give more attention to addressing teacher deficits than surpluses. The following diagram (Figure 47) illustrates this unequal distribution of teachers across a sample of 14 districts[161] with a total of 6,572 primary schools.

This study found that only 14% of the schools surveyed had the exact number of classroom teachers that they needed, with over 49% having an oversupply of two or more classroom teachers. The schools with insufficient teachers are fewer in number than those with an oversupply, which suggests that this problem could be resolved by reassignment of teachers.[162]

161 East Java 7 districts, Banten 3 districts and North Sumatra 4 districts

162 Destefano, J. (2011). *Analysis of Minimum Service Standards*. RTI.

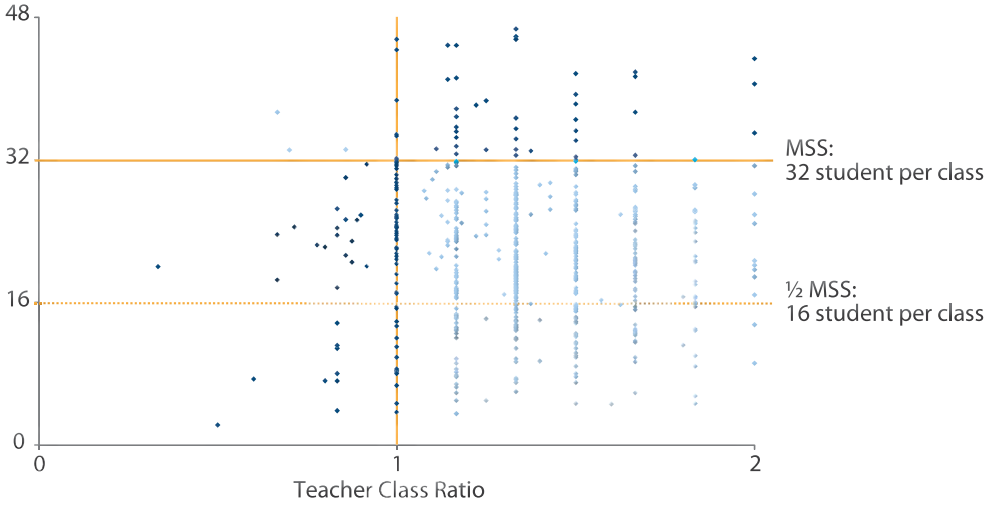
Figure 47. Percentage of Primary Schools by Type with Surplus/Deficit



Source: DBE. (2011). *Analysis of Minimum Service Standards*.

Data from Tuban District (East Java Province), a typical district in terms of the number of schools, highlights the nature of the challenges in managing teacher surpluses. The following figure brings together the two key variables determining education system efficiency, namely class size and teacher supply. The vertical line shows the Minimum Service Standard (*SPM*) relating to teacher adequacy (one class teacher per class) and the horizontal line shows the *SPM* relating to class size (not more than 32 children per class). Schools in the top left quadrant are those with more than 32 children per class and teacher shortages (less than one teacher per class); schools in the bottom left quadrant are those with fewer than 32 children per class and teacher shortages; schools in the bottom right quadrant are those with fewer than 32 children per class and teacher surpluses; and the schools in the top right quadrant are those with more than 32 children per class and teacher surpluses.

Figure 48. Class Size and Teacher Adequacy for Primary Schools in Tuban District



Source: DBE. (2011). *Total Education Delivery System Report*.

The majority of schools are in the bottom right quadrant, with fewer than 32 children per class and teacher surpluses. However, it would be possible to ensure that *all* schools have the required number of teachers by deploying teachers more effectively. The example illustrates that the district does not have the management capacity to do this, resulting in some schools with teacher surpluses and others with teacher shortages.

Correcting imbalances in teacher distribution within a district, let alone between districts and provinces, is complicated. To address inter-district and inter–province imbalances, in 2010 the government issued a Joint Decree of Five Ministers (Education and Culture, Home Affairs, Finance, Administrative and Bureaucratic Reform and National Planning Board) which aims to improve teacher mobility between districts and provinces with a view to ensuring that the ratio, academic qualifications, distribution and composition of civil servant teachers are in accordance with the actual needs of the schools. The effectiveness of the decree remains to be seen.

Figure 48 also shows that many schools in the district are small. The same phenomenon is evident at the national level, where it is estimated that at the primary level, approximately a third of schools have fewer than 120 students and 19% of the schools have fewer than 90 students.[163] The large number of small schools is another explanation for low STRs.

6.2.5 Key Issues and Challenges

In view of low STRs in many of Indonesia's schools, there is a need to increase the efficiency of the education system. The policy options for improving efficiency include school mergers, the introduction of multigrade teaching, multi-subject teachers, teacher mobility, and reducing the teaching force by not automatically replacing teachers who leave the force due to attrition. By optimizing the education system at the primary and junior secondary level, funding can be freed up and used for making the necessary investments to improve quality and expand access to senior secondary education.

Another issue the government intends to address unbalanced teacher deployment. As a follow-up to the issuance of the Joint Decree, districts are required to prepare a detailed map showing over- and under-supply of teachers. This information is to be sent to the central level via the Provincial Governor for further processing.

6.3 Raising the Caliber of Existing Teachers

Law No. 14 of 2005 on Teachers and Lecturers is an ambitious effort to upgrade the quality of Indonesian teachers. Its provisions are intended to increase the effectiveness of teachers and improve the learning outcomes of students. These quality enhancements are based on the teacher competencies defined by the Teacher Law and the standards defined by the National Education Standards Board. Two key requirements included in the Teacher Law are: (i) all teachers must have academic qualifications at the *D4* or Bachelor level and (ii) after meeting this requirement, all teachers must successfully complete the teacher certification process.

Since the enactment of the Law, lower level regulations have gradually come into place, including Ministerial Decree No. 16 of 2007, which specifies academic qualification and competency standards for teachers, and No. 13 of 2007, which sets out competency standards for school principals. Another regulation for raising the caliber of existing teachers is Decree of the Minister for Administrative and Bureaucratic Reform No. 16 of 2009 regarding Functional Positions for Teachers and the related Credit Point System and Technical Implementation Guidelines of MoEC (Ministerial Decree No. 35 of 2010).

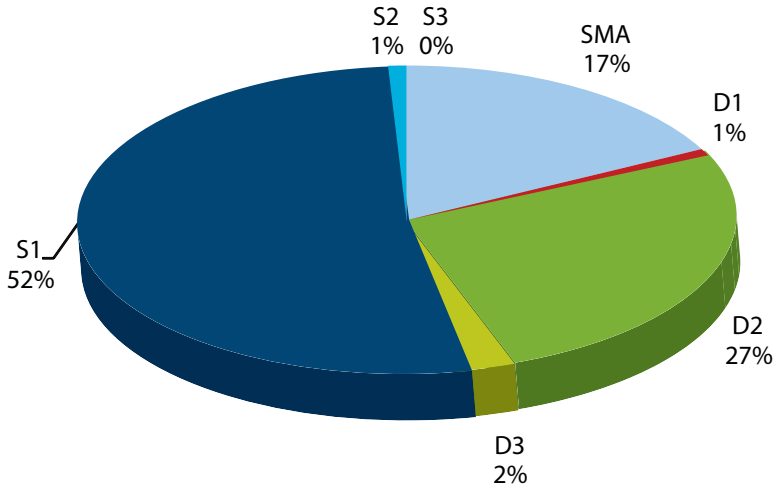
163 World Bank. *Spending more or spending better: Improving education financing in Indonesia*. Unpublished.

Sub-section 1 below examines the progress made towards raising the academic qualifications of the teaching workforce. Sub-section 2 focuses on the development of the certification process and progress made in certifying teachers. Sub-section 3 is concerned with teachers' continuing professional development and performance appraisal. Sub-section 4 focuses on quality improvement for school principals and school supervisors, while sub-section 5 is concerned with career development.

6.3.1 Raising Academic Qualifications

The present situation with regard to teachers' educational qualifications varies considerably, in line with the changing policies on educational requirements for teachers. For example, at the primary school level (*SD/MI*), teachers were previously only required to be graduates of Teacher Training Schools (*Sekolah Pendidikan Guru*, *SPG*), equivalent to senior secondary school. With the perceived need for improved qualifications for teachers, this requirement was gradually upgraded, first to a two-year diploma (*D2*) and in 2005, through Law No. 14/2005, to a bachelor degree (*S1*) or four-year Diploma. The great variation in teachers' educational levels is due to these changes in policy. Teacher qualifications are shown in Figures 49 and 50.

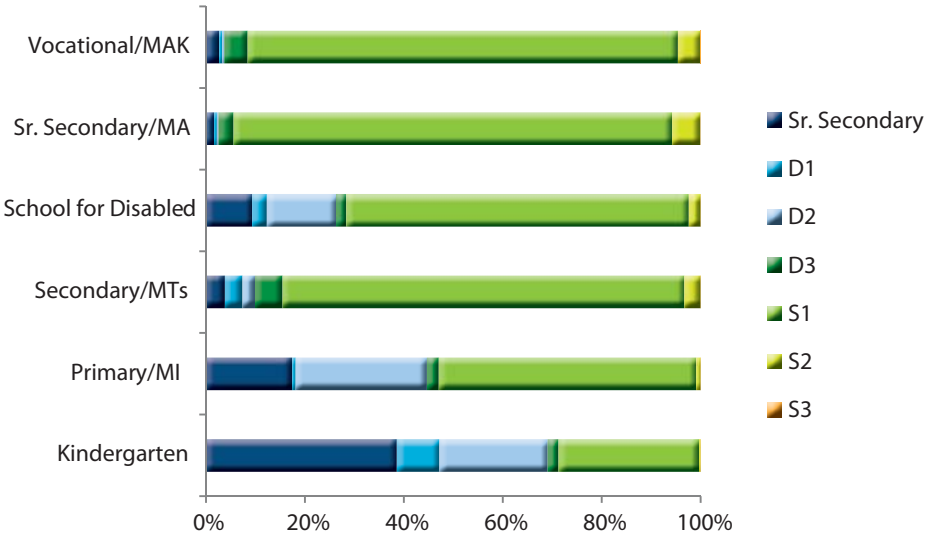
Figure 49. Primary School Teacher Qualifications (2012)



[Key: SMA: Senior Secondary School, *D1* – one year diploma, *D2* – two year diploma, *D3* – three year diploma, *S1* – bachelor degree, *S2* – masters degree, *S3* – doctor degree]
Source: *Badan Pengembangan Sumber Daya Manusia Pendidikan dan Kebudayaan & Penjaminan Mutu Pendidikan* (*BPSDMPK – PMP*), 2012

Those teachers trained at Teacher's Vocational School (*PGSLP*) or one-year diploma (*D1*) level tend not to pursue higher educational qualifications, as most of them are over 50 years old and therefore tend to be less interested in doing several years of further study than younger teachers. In contrast, for teachers with three-year diplomas (*D3*), not only is less time needed for them to obtain a bachelor degree, but most of them are still under 50 years of age.

Figure 50. Teacher Qualifications by Level (2012)



Source: *Badan Pengembangan Sumber Daya Manusia Pendidikan dan Kebudayaan & Penjaminan Mutu Pendidikan* (BPSDMPK – PMP), 2012

Several teacher education models exist to enable teachers to attain *S1/D4*. These models must adhere to the principle that teachers are expected to upgrade their educational qualifications, but must not leave the classroom on a mass scale, as this would cause major disruptions to teaching and learning. To upgrade teachers' educational qualifications, the government provides scholarships, which are allocated through the Open University (*Universitas Terbuka*, UT) and Teacher Training Institutes (*Lembaga Pendidikan Tenaga Kependidikan, LPTK*) both of which employ distance learning programs so that teachers do not have to leave their schools and can study part-time while continuing to teach. In addition, some teachers pursue further education on their own account, typically in a private *LPTK*, particularly those living and teaching close to such an institution.

Through these various routes and modalities, the government has developed a variety of program models to increase teacher academic qualifications, e.g. *S1* Education Program for Active Teachers or *Program S1 Kependidikan bagi Guru dalam Jabatan* based on the Minister of National Education Decree No. 58of 2008 on Implementing Bachelor (*S1*) Education for Active Teachers, where universities implementing this program will use Recognition of Prior Learning system (*Pengakuan Pengalaman Kerja dan Hasil Belajar*) for teachers to continue their study, through which the teacher's experience will be given credit points, thus reducing the time taken to achieve the *S1* degree. The appointed *LPTK* to implement the *S1* Education for Active Teachers program uses an open and distance learning (ODL) method.

6.3.2 Teacher Certification

For certification to be achieved, teachers must meet the necessary academic requirements and be able to demonstrate the competencies defined in the Law. This process provides a type of quality control by setting a benchmark for students who are about to become teachers as well as a target for the upgrading training of under-qualified teachers. Thus, a person who passes the teacher certification test conducted by their *LPTK* is considered to have the necessary capacity to educate, teach, train, guide, and assess students' learning. This assures the public that the teacher has the required knowledge and skills to meet the competency standards demanded by the education system and, therefore, those necessary for the instruction of their children.[164]

164 MoEC and World Bank. (2009). *Teacher Certification in Indonesia: A Strategy for Teacher Quality Improvement.* Jalal, F. et all. p. 29. Jakarta.

Model Development

As teacher certification was a new phenomenon in Indonesia, the government opted for a consensus-building approach to the design of the certification process by bringing together representatives from MoEC, MoRA, the Indonesian Teachers Association, the Indonesian Education Association, and Rectors of the *LPTK*s. In the early stages of the process, four alternative models for teacher certification were developed by different groups of specialists (*LPTK* Rectors, MoEC Working Group, national consultants and international consultants). The model that emerged was comprehensive in nature, consisting of an internal skills audit and a competency test comprising (i) a written test on basic skills in writing, reading and mathematics; and (ii) a classroom performance assessment.

As it was assumed that up to 65% of teachers would require upgrading to achieve the four-year training level, the model also included a training upgrade (equivalency) program. Finally, the model included a remedial Professional Education and Training Program for teachers who failed the certification process. Pilot testing took place in five districts in 2006.

Over time, there has been a gradual shift from a model with a strong emphasis on classroom performance assessment and competency examinations to a model with greater emphasis on self-appraisal and teacher portfolio assessment. Further, because of the heterogeneity of the teaching workforce, it became necessary to develop different sets of certification requirements for different groups of teachers (teachers 60 years of age and over, those 50 years of age and over, those with 25 years of experience or a grade 4a civil service ranking or above, remaining teachers with *S1*, and remaining teachers below *S1*). Special mechanisms have been developed to recognize prior learning of older teachers who do not have the required academic qualifications as well as requirements that must be met by teachers in order to meet the certification process, as follows:

a. Have a bachelor (*S1*) degree or four-year diploma (*D4*) from an accredited study program.
b. Teachers appointed as supervisors have the following requirements:
    1) Appointed as supervisor prior to the enactment of Government Regulation No. 74 year 2008 on Teachers (1 December 2008), and
    2) No more than 50 years old during the appointment as supervisor.
c. Teachers who do not yet have an *S1*/*D4* academic qualification:
    1) On 1 January 2013 are 50 years old and have 20 years experience as a teacher; or
    2) Have a *golongan* IV/a or meet the cummulative credit points equivalent to *golongan* IV/a (evidenced by a Decree on job promotion or *SK kenaikan pangkat*).
d. Those who became a teacher (civil servant or non-civil servant) during the enactment of Law No. 14/2005 on Teachers and Lectures on 30 December 2005.
e. Non civil servant teachers in private schools, who received a decree (*SK*) from the education implementors as permanent teacher for a minimal of two consecutive years (permanent foundation teachers) whereas non-civil servant teachers in public schools must have a decree from the Regent/Mayor.
f. Those who on 1 January 2014 are not yet 60 years old.
g. Physically and mentally fit evidenced by health certificate from a doctor.
h. Those who have an Educator and Education Worker ID Number or *Nomor Unik Pendidik dan Tenaga Kependidikan* (*NUPTK*).

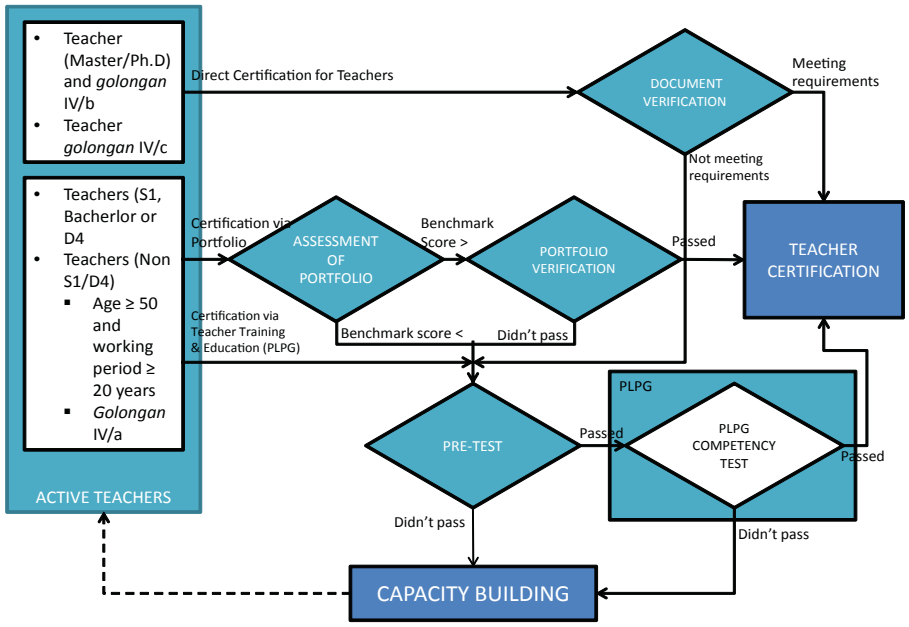
Teacher Certification Model

The teacher certification instrument developed by the joint Taskforce in 2007 took the form of a Teacher Self-Appraisal and Portfolio Assessment (including Peer Appraisal). The portfolio prepared by each teacher was the centerpiece of the new model and had to be submitted through the district office to the designated certifying university (*LPTK*).

The instrument requires evidence on the following ten teacher characteristics: 1) academic qualifications, 2) education courses and training, 3) teaching experience, 4) lesson planning and presentation, 5) appraisal by superior and supervisor, 6) academic achievements, 7) professional development work, 8) participation in scientific forums, 9) experience in education and social organizations, and 10) relevant recognition and awards in education. The evidence the teacher provides for each of the ten elements is intended to verify that they have the necessary competencies mandated in the Teacher Law in pedagogy (teaching ability), personal aspects (character and example), professional aspects (training and education), and social aspects (community participation). Each of the dimensions must be addressed by the applicant. This is achieved by completion of the portfolio form and provision of the necessary certified (legalized) attachments. The certifying university will then assess each portfolio using a scoring system. Teachers meeting the benchmark score of 850 points (out of a total of 1500) will be awarded certification and receive the Educator Certificate entitling them to double their current base salary.[165]

During October and November 2007, the first round of the certification process took place. Nationwide, 52% passed the initial portfolio test. Those who failed were required to attend a remedial course conducted by their certifying university. Ninety-six percent of those attending this course were successful. By 2008, this course had been established as the Education and Training for Teacher Profession (*PLPG - Pendidikan dan Latihan Profesi Guru*) course. It is a 90-hour course, (usually conducted over a nine-day period) written by the certifying university and delivered at the provincial level for teachers who fail the portfolio test. Its purpose is to improve the competency and professionalism of those teachers who did not gain a sufficiently high score in the portfolio test. This is a face-to-face course with 30 hours of theory and 60 hours of practicum. It provides a peer-teaching experience as well as observation of and feedback on the teaching skills demonstrated by participants. The curriculum follows the competency requirements of the Teacher Law and is based on the active learning model *(PAKEM)*. Teachers who pass gain their certification directly without being required to re-submit their portfolios. A teacher who fails the test at the end of the course may undertake the examination twice more. Teachers failing a third time will be referred to their district office for further training.[166]

Figure 51. Teacher Certification Model in Use



Source: MoEC. (2012). *Sertifikasi Guru Dalam Jabatan*.

165 MoEC and World Bank. (2009), pp. 82-83.

166 MoEC and World Bank. (2009), p. 88.

Starting in 2012, teachers wanting to become certified were required to take a pre-test prior to the start of the certification process (*Ujian Kompetensi Awal*). This test helps the participants to be more prepared for the certification process, and the result of the competency test will be used to determine the training content delivered to the teachers during the implementation of *Pendidikan dan Latihan Profesi Guru* (*PLPG*), which will be carried out by the appointed *LPTK*/University. The test is multiple choice and serves to assess the pedagogy and subject matter expertise. It is administered by the Board for Education and Culture Human Resources and Quality Assurance of MoEC. The average test score for 2012 was 42.2 out of a maximum score of 100. Around one third of the 491 districts participating in the test had a score above the average, and over two thirds were below the average. The national pass rate was 88.5%, and 35,000 out of a total of 285,000 teachers taking the test did not pass. Teachers who fail the test must follow a two-week training course provided by *LPMP* and *P4PK*.[167]

A total of 1,904,852 in-service teachers have not yet been certified. The target for 2012 is 250,000 teachers and it will be a challenging task to certify the remaining 1,654,852 teachers by 2015, the deadline for teacher certification set in the Teacher Law.

6.3.3 Teacher Continuing Professional Development and Performance Appraisal[168]

In general, standards are used for selection of new staff, design of courses, design of training, and performance appraisal. So, after the decree on teacher competency standards had become effective, MoEC, with support from the World Bank *Bermutu* Project, embarked on the development of a Teacher Continuing Professional Development (CPD) and Performance Appraisal system that is based on the competency standards. The main purpose of CPD is to improve student motivation and learning through teacher professional development. Over the years, concepts and program focuses have evolved, resulting in the following system, which is based on an annual cycle of professional development planning, implementation and evaluation taking place in the school.

The process is structured as follows:

At the beginning of the school year a CPD plan is prepared on the basis of:

- Teacher performance in the competency test. Since 2012, teachers have been required to take and pass the Teacher Competency Test (*Ujian Kompetensi Guru*). This test focuses on knowledge of the main subject taught and its associated methodology and is, therefore, primarily concerned with assessing the teacher's professionalism.
- The proficiency profile, which is the result of previous year's Teacher Performance Appraisal (TPA). The TPA is based on classroom activities and shows the teacher's level of proficiency in performing his/her Main Tasks, which are Planning, Implementation and Evaluation of Instruction. The focus is on pedagogical proficiency.
- Reflection and self-evaluation. The purpose of this activity is to help the teacher create a habit of assessing his/her performance on a regular basis and to enhance the credibility of the appraisal process.

CPD priorities are set on the basis of the following criteria:

- If the teacher scores below the requirement in the Competency Test or Proficiency Appraisal, priority must be given to bringing these two areas (professional and pedagogic) up to standard.
- The school's Annual Development Plan and School Self-Evaluation take second priority, and teachers must accommodate the school's priority needs.

167 Presentation on "*Penilaian Kinerja Guru dan Pengembangan Keprofesian Berkelanjutan*, MOEC, Directorate of Teacher in Primary Education, Center of Teacher Profession Development 16 March 2011.

168 This sub-section was prepared on the basis of interviews with the Deputy Director of Teachers in Primary Education and technical advisor and a Power Point presentation "*Penilaian Kinerja Guru dan Pengembangan Keprofesian Berkelanjutan*", 16 March 2012

- Only when the first two items have been fully satisfied can teachers choose CPD topics related to personal interests or career plans.

Continuing Professional Development activities may include self-development through: participation in training programs or peer events; preparation of scientific papers on the basis of relevant educational research or writing text-books, additional reading materials or teacher instruction guidance; the development of innovative creations such as applicable technologies, art work; the development or modification of teaching aids; and participation in the development of guidance books, test questions, etc.

Key to CDP is a proactive attitude, with the majority of the development activities taking place at the school (30%) and the school cluster (60%) levels. School-based activities can include self study, including on-line study, observations, and peer discussion and mentoring. Cluster-based activities may include group discussions, experience sharing and visits to other schools. Other professional development activities include participation in course programs offered by *P4TK* (Center for Development and Empowerment of Teachers and Education Personnel), *LPMP* (Institute for Educational Quality Assurance), *LPTK* (Teacher Training Institutions – a generic name for HEIs producing teachers), or the Open University.

Teacher Performance Appraisal takes place at the end of the school year and focuses on the main tasks teachers are to perform as specified in the Standard Process (Ministerial Decree 41 of 2007), which are Planning, Implementation and Evaluation of Instruction. Consequently, all appraisal instruments are structured on the basis of these Main Tasks. On the basis of performance indicators (see Table 32) and special instruments for performance measurement, a picture is obtained of the way in which the teacher performs his/her Main Tasks.

Table 32. Teacher Main Tasks and Performance Indicators

No.	Teacher Main Tasks and Performance Indicators
I.	**Lesson Planning**
	Teacher formulates the learning goal in RPP according to curriculum / syllabus and considers student characteristics
	Teacher compiles logical, contextual and up-to-date learning material
	Teacher plans an effective leaning activity
	Teacher chooses learning source/learning media according to material and learning strategy
II.	**The Implementation of Active and Effective Learning**
A.	Opening Activity
	Teacher starts the learning effectively
B.	Core Activity
	Teacher's mastery of learning material
	Teacher implements an effective learning approach/strategy
	Teacher uses learning source/media
	Teacher stimulates and/or maintains students' involvement in learning process
	Teacher uses accurate, correct language in learning
C.	Closing Activity
	Teacher ends the learning effectively
III.	**Learning Assessment**
	Teacher designs evaluation tools to measure the students' learning progress
	Teacher uses several strategies and assessment methods to monitor the results of student progress
	Teacher uses several assessment results to give feedback to students about their learning progress and for developing next learning material

In addition to TPA, progress in and quality of implementation of the teacher's CPD plan is assessed. This is done on the basis of reports on activities completed and results achieved (written work or innovations). These are submitted to a separate Credit Point Appraisal Team, which is comprised of school principals, senior teachers, school supervisors and members of the District Education Office and managed by the DEO. The level at which this is carried out depends on the teacher's professional level and civil service grade: for lower level teachers, the Credit Point Team is managed at district or provincial level; for senior grade teachers, the team is constituted at Ministry level.

The two appraisals (Teacher Performance and CPD Plan Implementation) together contribute to the teacher's credit point total for the year, with a set number of credit points required, including specification of source (Main Tasks as assessed through the TPA or CPD implementation as assessed through activities completed or products developed) for progress up the PNS grade scale. The TPA result activates a "multiplier" which can add or subtract from a notional annual credit point allocation depending on how near the teacher is to the set standard. By integrating professional development into annual TPA, it is anticipated that teachers will be motivated to progress professionally on a continuing basis, which ultimately should result in improved student motivation and achievement.

The new system was trialed in 2010, 2011 and 2012. The 2010 trial focused on performance appraisal and on the related guide-books and instruments that had been produced. On the basis of trial results, the process and supporting materials were refined but not changed in form. It was intended that the 2011 trial would cover the whole system, but participating schools only did the teacher appraisal. This clearly demonstrated the schools' tendency to give priority to administrative rather than professional aspects of the TPA/CPD system. In this year's trial, schools are expected to trial both appraisal and CPD planning and implementation. Trial preparation and assessor training took place in August and teacher performance appraisal in September 2012. CPD preparation and implementation is currently underway and the results are expected to be available by November 2012.

The 2010 trial took place in 50 schools from 10 districts (two Primary,one Junior Secondary, one Senior Secondary and one Vocational Senior Secondary; if no Vocational Senior Secondary was available, then an additional Junior Secondary was added). All districts were from the 75 districts participating in the World Bank supported *Bermutu* project, part of the purpose of which is to develop the system for Teacher Performance Appraisal and CPD. In 2011 and 2012 five districts not covered by *Bermutu* project were added to see if familiarity (or lack of it) with the policy and procedures made any significant difference to the ability to run the system. In 2011, the differences were not significant. The same spread of schools has been used in the two most recent trails, with a total of 75 schools participating in both.

Among the issues encountered in current and previous trials are: (i) ensuring reliability of assessors; (ii) the time required for teacher appraisal; (iii) ensuring equal standards in all schools; and (iv)ensuring availability of study support for CPD, in terms of both materials and mentors/resource persons.

6.3.4 Career Development

A key requirement for teachers is that they meet the teaching load, which is set at 24 hours of classroom instruction (one hour of instruction equals 45 actual minutes of instruction). When progressing through their career, teachers will continue to deliver classroom instruction, but they also have the opportunity to take up new responsibilities, such as becoming class coordinator, subject coordinator, special staff to the school principal, deputy school principal at the junior and senior secondary level, and finally school principal. Only after becoming deputy school principal does the teaching load decrease to 12 hours at the junior and senior secondary level. All school principals, irrespective of the level they are teaching at, still have to teach six hours of classes.

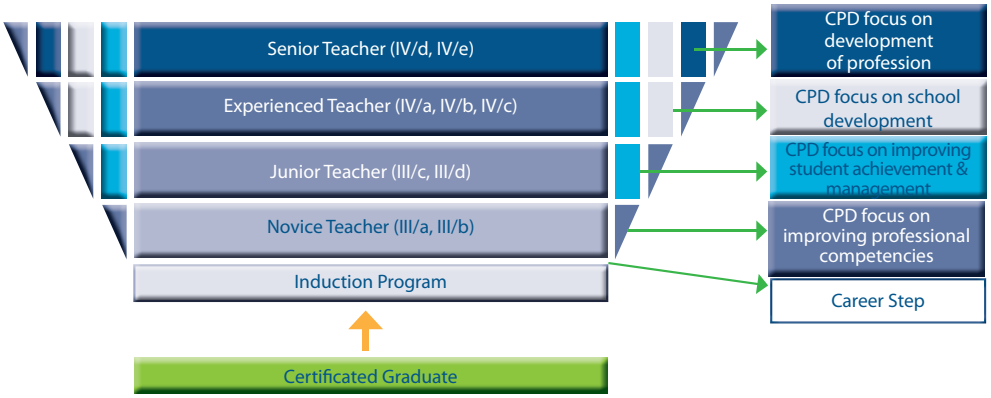
This requirement means that there are no full-time school principals in Indonesia, which is reflected in the position description: a school principal is a teacher who has the additional duty of school principal.

The period for which a teacher can be school principal is limited to two terms of four years each, after which the principal returns to teaching. Only in exceptional cases of excellent performance can the eight-year period be extended. Teachers can also become school supervisors, and, only at that level, is the teaching load reduced to zero, which makes it possible to concentrate full-time on the supervisory functions.

In Indonesia there are limited opportunities for high-performing teachers to grow further in the profession. Due to the requirement that teachers must deliver 24 hours of classroom instruction, teachers are tied to the schools at which they teach and are, therefore, unable to bring their experience to higher levels where more teachers could benefit from their experience.

In view of the above and as a follow-up to the strengthening of the appraisal and professional development system, MoEC is currently developing a Teacher Career Development Framework (see Figure 52 below).

Figure 52. Teacher Career Pathway



Source: MOEC. (2010). *Center for Teacher Professional Development*.

The framework provides a link between professional level and the potential focus of professional development. The first level is for novice teachers who have completed their induction program. As novice teachers are new to the profession, the focus of professional development activities is on improving their core competencies. The second level is for junior teachers with sufficient experience to build on core competencies, both to the advantage of individual learners and by adding new skills. Further topics in educational management can be added to the CPD options. The third level is for experienced teachers, who have a wide perspective and perceive their role as including all activities that contribute to increasing the educational capability of the school as a whole. Topics relevant to school development and how to conduct research and prepare publications can be added to prepare for progression to senior teacher level. The fourth and last level is for senior teachers. At this level, the teacher is able to contribute innovatively to the development of teaching their subject and is ready to lead the professional development of colleagues and other education professionals. Topics on development of the profession can be added to the CPD options.

All the above functions are functional positions. Key to the system under development is that a teacher can only be promoted to the next level after passing an examination. This means that there is a built-in check on whether the teacher has the competencies required before he/she can be promoted to the next professional level. MoEC is currently in the process of developing competency requirements for each level and grade.

6.3.5 Key Issues and Challenges

Academic Qualifications

Only the state *LPTK* has a special program for primary school teachers at the bachelor level. This results in many primary school teachers following an *S1* program that is less relevant to the work they do in school because there is no public *LPTK* close to where they live. Expansion of the primary school teacher program delivered through the Open University might offer a solution to this problem.

Certification

The number of teachers not yet certified is estimated by MoEC at slightly over 1.9 million. This total includes the teachers who have not yet completed their bachelor program. The target for 2012 is 250,000 teachers to be certified, which means that around 1.6 million teachers will have to be certified in the period 2013-2015 to meet the deadline as specified in the Education Law.

CPD and TPA

Currently, it is not common practice to assess whether the school principal actively supervises teacher performance in the classroom. Further, CPD plan preparation and implementation is voluntary. Starting from (2013), this will change, as observed teacher performance and CPD based on the result will become mandatory. This means that nearly 3 million teachers will go through a TPA/CPD cycle every year. Issues identified in a recent presentation[169] include:

Technical:
- To identify needs and impact on teaching/learning, the performance management system must involve direct observation of performance and qualitative appraisal; However
- Generally, there is no prior experience of direct skills assessment (mistrusted as "subjective"), and
- No prior experience of criterion-referenced appraisal

Cultural:
- Major attitudinal changes required, especially for needs-based CPD
- Expectation of input-based CPD, initiated and supplied externally

When designing CPD support strategies, it is necessary to take into account the very wide range of different teaching situations, including: (i) different levels of teacher expertise, both academically and professionally; (ii) different levels of facilities in schools; and (iii) different requirements for support and delivery (e.g. between schools in large towns and schools in remote villages). For instance, in an average-to-good school situation, the CPD program is more varied, covers all available topics, and is related to the professional level of the teachers.

There is a stronger focus on developing internally-driven CPD activities centered on the school and the school cluster. External provision can then be limited to special cases. The school or the school cluster is expected to directly access support materials from the source (e.g. *P4TK*) and resource persons are provided internally from the school or school cluster or hired directly by the school.

In schools operating in a difficult school situation, the CPD program is primarily a foundation program. The focus is on self-development and developing pedagogic and professional competencies. The teacher cluster group serves more as a location for activities and not as a source of teacher development. High levels of external support are required in the form of locally delivered functional training. *P4TK*

169 *Problems, Issues & Solutions in Professional In-Service Development of Teachers: A Case Study from Indonesia*; A work-in-progress (undated)

is expected to provide the foundation and bridging modules at pre-*S1* level in both subject content and pedagogy. *LPMP* provides Functional Training to school principals as part of in-service training , if possible, or directly to teachers.

Currently, the procedures for planning, implementing, monitoring, reporting and evaluating are in place. Planning is related to teacher and school needs and preferences, as revealed by a) the most recent competency test; b) the previous year's TPA; and c) the current year's reflection/self-evaluation. The main outstanding need is to ensure that adequate support materials that are appropriate for different user needs and teaching situations are available.[170]

6.4 Raising the Caliber of Teachers Entering the Profession

When raising the caliber of the teaching force, it is essential to ensure that new teachers entering the profession will be well qualified in both subject matter and pedagogy.

6.4.1 Raising Entry Requirements

In Indonesia there are 374 Teacher Training Institutes (32 public and 342 private institutes). Despite the large number of institutes, previously, many students who intended to become teachers studied at regular universities or institutes that do not provide specific teacher training programs. After completing their academic education, these students were required to complete a pedagogical competencies development program (*Akta IV Keguruan*) before they could become teachers. Program duration was from two to four semesters, and the study load was 36 to 40 academic credit units. The program covered such subjects as basic education theory, student development, curriculum and teaching/learning planning and strategies, assessments and evaluations, and classroom research. The program also included a major component for skill development at the school level. The *Akta IV* program was discontinued when it was replaced by the Teacher Professional Development Program.

6.4.2 Teacher Training Institutes (IKIP)

In another effort to raise the caliber of candidate teachers entering the profession, ten Teacher Training Institutes became universities in 1999. The main reason for this change in status was to encourage these institutes to develop their capacity to provide higher quality programs with more content focus. This was necessary as the programs offered before the change in status were often unbalanced, with too much emphasis given to pedagogical aspects, which resulted in graduates not having the required content-related proficiencies.

On the basis of an assessment of the internal strengths of the institute and market needs, the institutes selected the study programs they wanted to develop. In general, the universities have developed twin programs, which means that they have one faculty offering teaching-specific education programs for students who want to become, for instance, natural science teachers and another faculty offering a regular (non-teacher) natural science program. This setup is cost-effective, as it is possible to share resources, such as lecturing staff, laboratory, libraries and other facilities. Some universities have further developed this concept by introducing a dual degree program under which students will get one degree for the teaching-related program and another for the regular (non-teacher) program. This program is beneficial for the students, as they now have more than one career option: they can either become teachers or work outside the education sector where only the content knowledge is required. With the introduction of the *PPPG*, the dual degree program has become less attractive for students attending regular study programs, as they are still required to attend the *PPPG* after graduation.

170 These three paragraphs were written on the basis of a draft presentation prepared by a technical advisor to the Directorate of Teachers in Primary Education.

6.4.3 Post-graduate Teacher Professional Development Program

A major new initiative is the introduction of a post-graduate Teacher Professional Development Program (*Pusat Pengembangan Penataran Guru – PPPG*). This is a mandatory, post-graduate professional development program that candidate teachers have to successfully complete before they can enter the profession. The overall objective of the *PPPG* is to ensure that candidate teachers will have the required competencies to plan, deliver and evaluate educational activities, to follow up on evaluation results by guiding and training students, and to conduct research and develop their professionalism on a continuing basis. The Teacher Training Institutions (*LPTK*) are currently developing the pre-service program for candidate teachers. As appropriate for a professional development program, field work in a classroom setting takes up a large part of the program. Program duration is one year (40 academic credit units), and after having successfully completed the program, the teacher will be certified.

The *PPPG* has two different student streams: the first for students who have an academic background in education and the second for those who have attended regular non-education specific programs. For the former, more attention is given to strengthening subject matter expertise, while for the latter more attention is given to pedagogical skills development. The portion of practical field work is the same for both streams. By integrating pedagogical competency development into subject matter expertise development, students are helped to become effective professionals.

6.4.4 Policies to Improve the Quality of Students Entering Teacher Education[171]

The government is currently putting the following new policies in place to improve the quality of students who train to become teachers.

Imposing Quotas for Number of Students

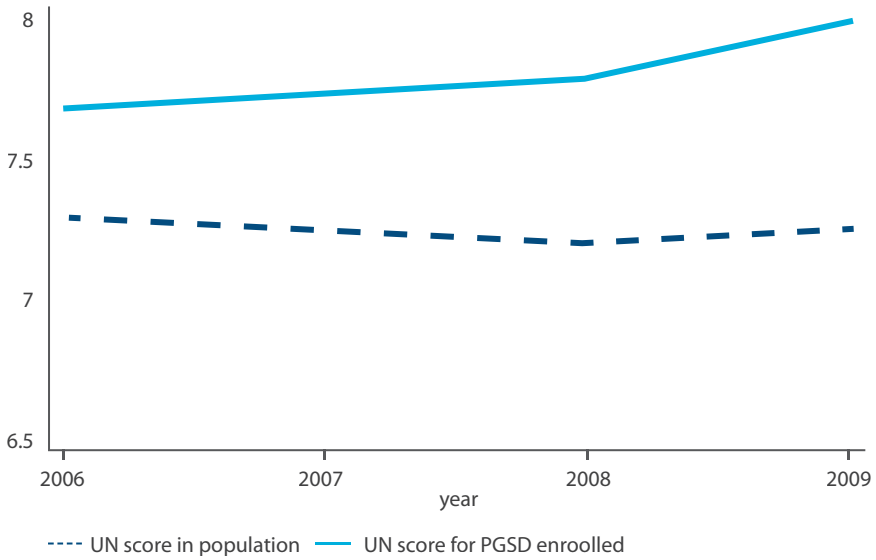
Currently, there are 374 teacher training institutes, each of which determines independently and on the basis of student interest how many students can enter its teacher training programs. This has resulted in a significant oversupply of candidate teachers and a wide variation in quality. To address this issue, the government intends to impose quotas for the number of students who can enter teacher education. The quotas will have to be determined on the basis of detailed analysis of the needs at the school level. However, in view of the findings presented in Section 6.2, special efforts will have to be undertaken to ensure that the education system becomes more efficient by increasing STRs, which means that teachers who reach retirement age should not automatically be replaced by hiring new teachers. Optimization of the education system will require a leaner, but better qualified, teaching force. Furthermore, there is a need to limit the number of institutions that can offer pre-service teacher training programs. A strict selection process will have a positive impact on program quality.

Improving Student Selection

In the past, teacher education was not a first choice for the majority of students. Only those who had been refused entry to other institutions would enter teacher education programs. However, since the introduction of a system of professional allowances, the teaching profession has become more attractive and competitive. Figure 52 below shows there has been a steady increase in the percentage of students starting their primary school teacher training program with above-average senior secondary final examination results, which clearly suggests that more qualified students are entering the teaching profession. This development provides an opportunity to make student selection stricter and more comprehensive, in the sense that it should not only deal with academic performance, but also look into the candidate's aptitude to become a teacher.

171 Explanation by Minister of Education and Culture at Yogyakarta State University (Berita Kemdikbud 7 August 2012)

Figure 53. National Examination (UN) Scores and *PGSD* Enrollments (relative to the general population) [172]



Scholarships and Boarding School Facilities

To ensure that the future generation of teachers is of high quality, the government will provide scholarships to students who have successfully passed the entry test. The government also intends to provide students with boarding facilities at the Teacher Training Institutes with the aim of guiding the candidate teachers more intensively, which will include character building and social competency development for candidate teachers. Identification of Teaching Training Institutes that have boarding facilities is currently underway.

Introducing a System of Dual Subject Specialization

Due to low STRs, a large number of teachers are unable to meet the teaching load requirement (24 hours per week). It is recognized that school staffing formulas and policies related to teaching subjects need to be adjusted to fit the realities of the Indonesian system. Key staffing measures include the adjustment of the school staffing formula to emphasize the number of students rather than the number of classes, so that the formula reflects the reality of the many small schools in Indonesia.[173] Currently, if a teacher does not meet the teaching load requirement, according to the regulations, the teacher is not permitted to receive a professional allowance. This is often perceived as beyond unjust, as system since non-compliance with the required teaching load is beyond the individual teacher's control because, the employer the District Education Office – has been unable to provide the teacher with sufficient teaching hours. To address this concern, the government has announced plans to introduce a system of dual subject specialization, whereby each candidate teacher will study and be prepared to teach one major and one minor subject. This will substantially increase the flexibility of teacher deployment in the field, enabling the system to be more responsive to changing demands and subject needs.

172 Unpublished results of research conducted by World Bank

173 World Bank. (2010). *Transforming Indonesia's Teaching Force, Vol.II: From Pre-service Training to Retirement: Producing and Monitoring High Quality, Efficient and Motivated Workforce*, p. 5.

6.5 Quality Improvement for School Principals and School Supervisors[174]

In addition to the initiative undertaken by MoEC for improvement of Annual Teacher Performance and Professional Development, the Ministry, through the Center for Educational Personnel Development of the Educational and Cultural Human Resource Development and Quality Assurance Board, is in the process of putting in place a comprehensive system for improving the performance of school principals and school supervisors.

The program has the following two key components: (i) the Principal Preparation Program; and (ii) the introduction of Continuing Professional Development (CPD) for School Principals.

The Principal Preparation Program

All the "software" (i.e. guides, instruments, training materials, etc.) has been developed and pilot tested in 25 districts. Staff of *LPMP* have been trained and have the capacity to support implementation in the next batches of districts. The preparation process is broken down into the following stages: the administrative selection, the academic selection and a 300-hour training program of in-service training (70 hours), on-the-job training (200 hours) and in-service training (30 hours). The selection process is strict, with around 50% of the participants passing the academic selection stage. In the pilot districts, 99% of the candidates who successfully completed the program were officially appointed. On average, 20 candidate school principals were trained per district. Implementation is currently under way in an additional 91 districts (*APBN* funded) and is scheduled for another 146 districts (AusAID funded) by the end of 2012.

Continuing Professional Development for School Principals

Continuing Professional Development is a key government policy and has been formalized in a Decree of the Minister for Administrative and Bureaucratic Reform, which also applies to school principals. Each school principal is required to prepare and implement a CPD plan, the results of which will become an integral part of the annual School Principal Performance Appraisal. School principals will not carry out professional development planning by themselves, but will be assisted by the school supervisor. To this end, the program includes a major component for developing the capacity of school supervisors to facilitate, organize, and monitor the preparation and implementation of school principals' CPD.

The program distinguishes three levels of competence. Units of learning have been developed for level 1 (7 units) and are planned to be developed for level 2 (7 units) and level 3 (10 units). The school principal is expected to complete two units of learning per year as part of his/her professional development. School supervisors have been trained and now have a general understanding of the units of learning so that they can guide the school principal on the relevance and the optimal study methods, for instance via self-study or via the cluster mode, of each unit. The CPD component has been piloted in five districts and further implementation is currently underway in another 26 districts. Rollout in all districts in the country is planned for 2013.

To enhance program sustainability, the program includes capacity building at the district level for, amongst others, relevant personnel from the District Education Office, District Personnel Board and District Education Council. It is hoped that better understanding of the importance of CPD will encourage districts to develop relevant local CPD regulations, which is a pre-condition for allocation of district funding for professional development of teachers, school principals, and school supervisors. Capacity development efforts also take place at the provincial level, focusing on the same organizational units.

Overall, this program has been putting into place a comprehensive system for performance improvement of school principals and school supervisors, for nationwide implementation from 2013.

174 This sub-section was prepared on the basis of an interview with the Senior Professional Development Advisor of Australia's Education Partnership with Indonesia: School Systems and Quality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Chapter 7
Conclusion

Indonesia has been undergoing a process of rapid change since its emergence as one of the world's largest democratic states more than a decade ago. In the context of decentralization, strong regulatory framework for education has been put in place, including laws, regulations and standards, and this framework continues to be adjusted in order to better meet both national and regional realities and socio-economic changes. At the same time, major efforts have been made to ensure that relevant stakeholders at all levels have a clearer understanding of this new system.

Some of these key achievements and challenges in the education sector can be summarized as follows:

- *Decentralization*: Within just over a decade, Indonesia has managed to bring about profound changes in governance and management. Education management and service delivery has been largely devolved from the central level to the district/municipality level. Functions have been redefined and structures have been adjusted to support these new roles. At the same time, the capacity to effectively deliver quality education at this level remains limited in several areas.
- *Regulatory framework:* The government, particularly working through *BAPPENAS*, MoEC and MoRA, has put in place a strong regulatory framework for education, in the form of Laws, Government Regulations, Ministerial Decrees, standards and other measures. Ensuring that this framework is fully understood and implemented, particularly at the regional level, remains a key challenge.
- *Financing of Education:* The education sector is now receiving more funding than ever before, through a range of funding mechanisms. With the Constitution mandating that at least 20% of the budget at both national and regional levels shall be allocated to education, and a strong economy with increased economic growth predicted, funding for the sector is likely to continue increasing for the foreseeable future, which creates opportunities, particularly for education quality improvement. The key challenge is to improve the effectiveness and efficiency of education spending
- *Access:* Indonesia has made significant progress in increasing access particularly at primary and junior secondary education levels. However, there are still a significant number of children who do not have access to basic education, due to remoteness and/or poverty, and reaching these children remains an ongoing challenge. In addition, it will be important to focus efforts on equitable expansion of senior secondary education.
- *Free basic education*: In 2005, the Indonesian Government established the School Operational Assistance Fund or *BOS*, which enabled the abolition of tuition fees for primary and junior secondary schools. This has contributed significantly to improving access as well as ensuring that schools, particularly those in more remote or poorer communities have an operational budget, often for the first time. At the same time, this has, in some cases, resulted in a decline in community support

for the school. In addition, the amount provided has not always been adequate for the type and location of each school.

- *Quality*: Following the major achievements in increasing access to education the pressing priority is to improve quality. The establishment of the National Education Standards and related systems for planning, implementation and monitoring provide a framework for quality improvement. Teaching and learning has undergone a major change over the past decade, with a shift from a teacher-centered to a student-centered methodology. While major efforts have been made to train teachers and school principals in the new methodology, the impact has often been limited due to a variety of capacity constraints. A further key challenge is the need to develop appropriate and reliable systems for assessment of student learning as part of a coherent and integrated system for quality improvement.
- *Teacher supply:* The teacher workforce in Indonesia is very large, with over 2.7 million teachers. Indonesia has one of the lowest student-teacher ratios in the world as teacher numbers have continued to increase disproportionately to increases in student enrolments. STR's are below global averages, and well below countries of similar development status, and below international benchmarks associated with good education quality. The fiscal implications of inefficiencies in teacher utilisation are a key issue for the education sector. A large share of education expenditure is allocated to teacher salaries and allowances. In addition, the status of teachers has a significant impact, in particular the costs associated with the professional certification allowance and the financial implications of civil servant and non-civil servant teachers. With planned increased conversion of contract teachers to civil servant status and accelerated certification, managing teacher supply and deployment will become increasingly critical. A number of studies have suggested that teacher costs will increase at an even quicker rate in coming years, to unsustainable levels.
- *Relevance*: As Indonesia has developed into a middle-income country and as it continues to experience strong economic growth, the Government's economic development strategy gives high priority to improving the relevance of education and training to meet the needs of the labour market. The demand for advanced professional, technical and vocational skills is increasing, and changing quickly, as a result of international competition, fast changing technologies and globalization. Currently, education provision in Indonesia tends to be supply-driven with limited understanding of the needs of industry and business, resulting in a mismatch between graduate skills and labour market demand. Improving the relevance of education will be critical for future competitiveness and economic development.

As noted, the Indonesian education system is very large and diverse, with over 50 million students it is the fourth largest in the world[175]. This report has attempted to provide a comprehensive overview of this immense and complex sector. In addition to exploring the key elements which have helped to shape the sector, as well as the various sub-sectors which make up the education system, this report has also identified some of the key education issues and challenges that are currently being faced by the Government of Indonesia and other stakeholders – issues that they will continue to work on with a view to ensuring that a strong education system is in place that has the potential to provide quality education for all Indonesians.

175 *World Bank and Education in Indonesia*. www.worldbank.org

Statistical Annexes

These Statistical Annexes provide detailed picture of education provision at the early childhood, primary, junior secondary, senior secondary and higher education levels. They are prepared on the basis of three major data sources:

- *Ikhtisar Data Pendidikan Nasional* published by MoEC
- *Buku Indikator Kunci Keberhasilan* published by MoEC
- *Buku Statistik Pendidikan Islam* published by MoRA

As explained in the main body of this report, MoEC and MoRA are overseeing education provision at the local level. Each ministry has its own EMIS covering the schools and education institutions under its mandate. It is important to note that, to a large extent, there is uniformity in data collected but that there are also differences, which has made it impossible to calculate a number of key indicators.

Reference year: the majority of data and indicators are for school year 2010/11 with two exceptions: Gross and Net Enrollment Rates are for school year 2011/12 and teacher related data and indicators are for school-year 2009/10.

Private education Institutions: the number of private institutions is the total of private *SD*s (primary schools) and private *MI* (Islamic primary schools). The same applies at the junior and senior secondary levels. As to the percentage of students at private education institutions this is calculated by expressing the total number of students at private institutions as a percentage of total number of students.

Transition rate: the rate for transition from primary to junior secondary is calculated by expressing the total of number of new learners at grade 7 *SMP* (junior secondary) plus total number of learners at grade 7 *MTs* (Islamic junior secondary) as a percentage of total number of primary education graduates. The same formula is used for transition from junior to senior secondary education.

Annex A: Early Childhood Education

No	Province	Institution		Enrollment						% Student Grade 1 who attended Kindergarten	
		Total	% Private *TK*	Male	Female	Total	GPI	% RA	% Private [1)]	Total Number of Primary Students Grade 1	% Attended Kindergarten
1	Jakarta	2,835	99.4	87,433	76,526	163,959	0.88	24.0	99.5	155,594	64.3
2	West Java	10,988	98.4	223,896	224,104	448,000	1.00	37.4	98.7	1,017,677	27.3
3	Banten	2,667	98.5	52,486	53,628	106,114	1.02	36.5	99.0	250,708	27.6
4	Central Java	17,094	98.8	337,672	343,413	681,085	1.02	27.1	98.5	659,861	64.3
5	Yogyakarta	2,295	98.9	48,941	46,857	95,798	0.96	6.3	97.9	54,584	92.3
6	East Java	22,598	99.1	527,487	531,176	1,058,663	1.01	28.2	98.9	721,754	70.0
7	Aceh	1,777	93.5	44,270	42,816	87,086	0.97	13.9	92.7	113,981	37.1
8	North Sumatra	2,753	91.3	65,567	71,888	137,455	1.10	46.4	95.3	332,290	23.5
9	West Sumatra	2,379	96.6	43,657	44,053	87,710	1.01	17.5	95.4	119,499	57.8
10	Riau	1,822	96.8	41,886	42,392	84,278	1.01	16.0	96.5	139,632	38.4
11	Kepulauan Riau	583	94.5	13,376	13,309	26,685	0.99	23.0	94.1	33,766	52.3
12	Jambi	1,247	95.1	24,262	24,163	48,425	1.00	18.0	94.7	76,327	46.8
13	South Sumatra	1,597	92.5	32,723	33,068	65,791	1.01	19.9	91.9	173,541	24.3
14	Bangka Belitung	271	85.0	8,982	8,949	17,931	1.00	13.6	85.6	26,042	39.2
15	Bengkulu	556	91.6	11,354	11,477	22,831	1.01	16.3	91.8	48,900	33.4
16	Lampung	2,539	97.4	52,746	53,212	105,958	1.01	15.0	97.6	190,694	36.0
17	West Kalimantan	726	91.1	16,821	16,596	33,417	0.99	18.0	92.5	121,398	15.9
18	Central Kalimantan	1,040	95.1	22,958	22,955	45,913	1.00	16.0	95.1	61,616	38.0
19	South Kalimantan	2,078	97.6	47,405	45,962	93,367	0.97	17.6	97.0	88,093	53.3
20	East Kalimantan	1,144	96.6	29,612	29,402	59,014	0.99	9.9	95.1	85,931	38.5
21	North Sulawesi	1,365	97.5	21,028	21,215	42,243	1.01	8.9	96.8	48,140	64.3
22	Gorontalo	663	97.6	16,579	15,479	32,058	0.93	4.7	96.3	30,237	50.3
23	Central Sulawesi	1,278	97.0	23,296	23,575	46,871	1.01	13.5	96.7	68,222	40.9
24	South Sulawesi	3,845	97.9	67,973	67,954	135,927	1.00	15.7	97.1	188,662	44.6
25	West Sulawesi	660	92.6	11,779	11,849	23,628	1.01	15.6	91.2	35,830	43.0
26	Southeast Sulawesi	1,293	93.2	24,850	24,739	49,589	1.00	12.2	91.3	63,085	48.4
27	Maluku	396	89.5	7,769	7,672	15,441	0.99	10.9	90.2	52,712	21.5
28	North Maluku	321	89.5	5,882	6,006	11,888	1.02	13.5	87.6	31,422	21.5
29	Bali	1,364	97.1	35,087	35,353	70,440	1.01	10.1	96.3	73,885	75.9
30	West Nusa Tenggara	1,557	95.1	34,070	35,295	69,365	1.04	16.5	94.5	110,980	33.6
31	East Nusa Tenggara	1,252	93.0	24,722	25,601	50,323	1.04	9.4	92.1	148,634	20.3
32	Papua	433	92.3	13,154	13,273	26,427	1.01	10.1	93.3	65,120	25.2
33	West Papua	228	92.8	5,556	5,799	11,355	1.04	12.3	94.6	24,429	32.3
	Indonesia	**93,644**	**97.4**	**2,025,279**	**2,029,756**	**4,055,035**	**1.00**	**24.6**	**97.3**	**5,413,246**	**43.5**

Note:
1) Assumption: all Islamic institutions are private

Annex A: Early Childhood Education (Cont'd)

No	Province	GER		Teacher Background [2]							Ratios	
		2010/11	2011/12	Total [3]	Male [4]	Female [4]	% PNS *TK*	% PNS *RA* [5]	< S1	> S1	Student / School	Student / Teacher
1	Jakarta	29.4	31.9	14,101	591	12,734	7.9	5.1	82.3	17.7	58	11
2	West Java	25.4	31.1	53,785	3,696	45,334	16.8	2.3	78.9	21.1	41	8
3	Banten	25.9	31.6	11,739	983	9,704	18.6	2.6	81.2	18.8	40	9
4	Central Java	34.4	39.1	62,991	2,221	56,356	24.4	7.8	87.0	13.0	40	11
5	Yogyakarta	50.7	58.6	9,450	435	8,859	36.9	10.0	76.9	23.1	42	9
6	East Java	46.6	55.2	90,659	6,095	78,842	13.7	6.4	75.8	24.2	47	11
7	Aceh	23.7	27.0	8,735	192	8,266	31.6	12.3	90.5	9.5	49	8
8	North Sumatra	23.6	28.6	13,239	741	11,148	12.6	1.3	70.9	29.1	50	10
9	West Sumatra	28.8	34.2	9,781	148	9,196	26.1	10.0	91.6	8.4	37	9
10	R i a u	24.5	28.1	8,347	475	7,603	13.3	11.4	87.2	12.8	46	9
11	Kepulauan Riau	35.9	46.4	2,431	48	2,270	15.2	1.1	89.6	10.4	46	11
12	J a m b i	22.9	31.6	5,181	156	4,813	19.7	4.0	92.4	7.6	39	8
13	South Sumatra	23.8	29.2	6,923	339	6,240	19.5	3.5	87.6	12.4	41	9
14	Bangka Belitung	52.9	47.6	1,387	38	1,306	17.0	9.1	93.2	6.8	66	12
15	Bengkulu	32.1	39.0	2,912	54	2,789	24.2	7.3	89.9	10.1	41	7
16	Lampung	27.0	29.9	10,424	381	9,551	12.6	3.2	88.8	11.2	42	10
17	West Kalimantan	17.7	22.8	3,680	272	3,287	21.2	17.3	86.3	13.8	46	9
18	Central Kalimantan	31.5	35.8	4,312	67	4,098	21.9	12.1	92.9	7.1	44	11
19	South Kalimantan	25.3	29.6	9,739	275	9,176	24.5	15.4	90.5	9.5	45	9
20	East Kalimantan	17.0	22.3	5,040	142	4,802	12.7	7.5	88.4	11.6	52	11
21	North Sulawesi	25.1	28.8	4,245	327	3,805	45.9	7.4	92.5	7.5	31	10
22	Gorontalo	24.2	40.3	2,081	29	2,012	34.0	14.3	92.5	7.5	48	11
23	Central Sulawesi	24.3	33.2	6,011	41	5,793	31.4	11.2	94.6	5.4	37	8
24	South Sulawesi	22.7	28.4	16,277	268	15,373	30.4	16.9	82.3	17.7	35	8
25	West Sulawesi	19.7	29.2	2,934	54	2,754	24.1	6.7	87.7	12.3	36	8
26	Southeast Sulawesi	22.1	34.2	5,017	51	4,817	32.2	16.1	91.9	8.1	38	9
27	M a l u k u	10.5	21.4	1,216	12	1,162	53.3	6.5	94.3	5.7	39	11
28	North Maluku	17.4	24.1	1,327	13	1,259	37.8	23.9	90.1	9.9	37	9
29	B a l i	35.8	40.2	5,992	340	5,572	26.8	4.7	83.4	16.6	52	11
30	West Nusa Tenggara	25.2	33.4	7,385	352	6,806	25.9	9.9	83.8	16.2	45	9
31	East Nusa Tenggara	19.1	24.7	4,201	318	3,776	41.6	15.2	93.8	6.2	40	11
32	Papua	17.0	18.1	2,114	42	1,997	33.2	18.3	93.5	6.5	61	12
33	West Papua	14.2	21.2	955	17	891	22.9	14.5	89.9	10.1	50	12
	Indonesia	**29.0**	**34.5**	**394,611**	**19,213**	**352,391**	**21.2**	**6.2**	**82.9**	**17.1**	**43**	**10**

Note:
2) Teacher Background on the basis of 2009/10 data
3) All teachers including *RA* (Islamic kindergarten) principals
4) Excluding *RA* teachers
5) Excluding *RA* principals

Annex B: Primary Education

No	Province	Institution				Enrollment							
		Total SD	% Private SD	Total MI	% Private MI	Total	% Private	Male	Female	Total	GPI	% MI	% Private
1	Jakarta	2,957	27.0	463	95.2	3,420	36.2	464,352	461,736	926,088	0.99	9.6	30.0
2	West Java	19,759	5.4	3,444	97.4	23,203	19.0	2,670,215	2,634,853	5,305,068	0.99	10.7	15.0
3	Banten	4,475	10.4	874	97.7	5,349	24.7	723,326	726,995	1,450,321	1.01	10.1	16.6
4	Central Java	19,739	4.5	3,691	96.9	23,430	19.0	1,964,661	1,955,292	3,919,953	1.00	13.1	16.4
5	Yogyakarta	1,924	19.8	156	86.5	2,080	24.8	162,136	156,256	318,392	0.96	4.2	24.3
6	East Java	19,923	6.6	6,712	97.8	26,635	29.6	2,060,074	2,058,202	4,118,276	1.00	19.6	24.4
7	Aceh	3,339	4.4	565	23.4	3,904	7.1	338,808	329,611	668,419	0.97	18.1	5.2
8	North Sumatra	9,351	12.1	725	82.8	10,076	17.2	979,384	978,563	1,957,947	1.00	5.4	18.0
9	West Sumatra	4,127	3.3	141	56.0	4,268	5.0	362,862	345,364	708,226	0.95	2.4	5.4
10	Riau	3,392	9.2	376	95.2	3,768	17.8	393,748	380,303	774,051	0.97	5.2	15.9
11	Kepulauan Riau	818	21.1	48	81.3	866	24.5	88,824	85,445	174,269	0.96	6.4	29.5
12	Jambi	2,354	3.4	254	85.4	2,608	11.3	221,931	224,843	446,774	1.01	4.3	6.8
13	South Sumatra	4,521	6.0	479	92.3	5,000	14.3	519,657	497,324	1,016,981	0.96	5.9	9.6
14	Bangka Belitung	790	5.1	30	60.0	820	7.1	76,634	74,353	150,987	0.97	3.1	7.7
15	Bengkulu	1,329	2.9	119	65.5	1,448	8.1	132,237	126,732	258,969	0.96	5.1	5.1
16	Lampung	4,557	5.0	740	93.0	5,297	17.3	586,443	538,962	1,125,405	0.92	8.5	11.4
17	West Kalimantan	4,087	4.6	347	93.4	4,434	11.5	358,741	340,855	699,596	0.95	7.0	11.6
18	Central Kalimantan	2,495	4.6	270	86.7	2,765	12.6	187,891	176,687	364,578	0.94	9.7	13.0
19	South Kalimantan	2,910	5.9	504	71.6	3,414	15.6	250,448	237,818	488,266	0.95	13.9	13.1
20	East Kalimantan	2,212	7.4	126	91.3	2,338	11.9	226,722	222,635	449,357	0.98	4.1	12.7
21	North Sulawesi	2,205	38.5	71	83.1	2,276	39.9	146,310	140,413	286,723	0.96	3.2	38.8
22	Gorontalo	865	2.8	83	91.6	948	10.5	90,124	85,576	175,700	0.95	5.6	6.5
23	Sulawesi Tengah	2,750	7.2	176	88.6	2,926	12.1	194,512	186,834	381,346	0.96	4.4	9.4
24	South Sulawesi	6,301	4.3	626	91.4	6,927	12.1	558,918	551,423	1,110,341	0.99	5.9	8.4
25	West Sulawesi	1,269	2.0	143	95.8	1,412	11.5	100,680	94,796	195,476	0.94	6.8	7.4
26	South East Sulawesi	2,229	2.3	120	84.2	2,349	6.5	185,272	186,327	371,599	1.01	4.2	4.3
27	Maluku	1,706	32.3	121	82.6	1,827	35.6	147,435	142,316	289,751	0.97	5.9	30.2
28	North Maluku	1,229	15.0	105	78.1	1,334	19.9	93,533	91,506	185,039	0.98	7.7	18.2
29	Bali	2,429	3.7	53	71.7	2,482	5.2	220,490	218,352	438,842	0.99	4.1	9.5
30	West Nusa Tenggara	3,041	2.4	692	96.4	3,733	19.8	326,483	314,159	640,642	0.96	11.1	11.5
31	East Nusa Tenggara	4,551	38.4	149	85.9	4,700	39.9	411,436	398,200	809,636	0.97	2.5	43.4
32	Papua	2,240	39.0	31	90.3	2,271	39.7	171,872	157,265	329,137	0.92	1.9	47.6
33	West Papua	930	39.8	34	79.4	964	41.2	64,539	61,747	126,286	0.96	4.0	44.6
	Indonesia	**146,804**	**9.1**	**22,468**	**92.5**	**169,272**	**20.2**	**15,480,698**	**15,181,743**	**30,662,441**	**0.98**	**10.1**	**17.1**

Annex B: Primary Education (Cont'd)

No	Province	Drop-Out						Repeater					
		Total SD	% DO SD	Total MI	% DO MI	Total	% Total DO	Total SD	% Repeater SD	Total MI	% Repeater MI	Total	% Repeater
1	Jakarta	11,877	1.41	-	0.00	11,877	1.27	18,578	2.2	-	0.0	18,578	2.0
2	West Java	64,187	1.40	1,581	0.28	65,768	1.28	30,535	0.7	4,524	0.8	35,059	0.7
3	Banten	13,892	1.09	146	0.10	14,038	0.99	42,939	3.4	672	0.5	43,611	3.1
4	Central Java	35,280	1.04	789	0.16	36,069	0.92	106,879	3.1	10,641	2.1	117,520	3.0
5	Yogyakarta	3,118	1.04	3	0.02	3,121	0.99	13,193	4.4	353	2.7	13,546	4.3
6	East Java	34,752	1.06	1,225	0.15	35,977	0.88	76,011	2.3	9,285	1.1	85,296	2.1
7	Aceh	11,569	2.12	174	0.15	11,743	1.78	21,060	3.9	1,224	1.1	22,284	3.4
8	North Sumatra	26,237	1.43	156	0.15	26,393	1.36	38,372	2.1	255	0.3	38,627	2.0
9	West Sumatra	15,522	2.26	110	0.66	15,632	2.23	27,283	4.0	155	0.9	27,438	3.9
10	Riau	18,636	2.52	2	0.00	18,638	2.39	28,603	3.9	46	0.1	28,649	3.7
11	Kepulauan Riau	1,730	1.05	-	0.00	1,730	1.00	5,349	3.3	47	0.6	5,396	3.1
12	Jambi	5,113	1.22	48	0.32	5,161	1.19	10,878	2.6	220	1.5	11,098	2.6
13	South Sumatra	15,750	1.64	14	0.02	15,764	1.53	44,996	4.7	755	1.2	45,751	4.5
14	Bangka Belitung	3,881	2.61	5	0.11	3,886	2.53	9,305	6.2	86	1.9	9,391	6.1
15	Bengkulu	5,979	2.51	41	0.32	6,020	2.40	11,364	4.8	232	1.8	11,596	4.6
16	Lampung	24,338	2.35	362	0.39	24,700	2.19	72,981	7.1	966	1.0	73,947	6.6
17	West Kalimantan	16,637	2.52	42	0.09	16,679	2.36	41,018	6.2	145	0.3	41,163	5.8
18	Central Kalimantan	5,891	1.82	106	0.31	5,997	1.68	17,242	5.3	158	0.5	17,400	4.9
19	South Kalimantan	9,120	2.22	262	0.40	9,382	1.97	22,318	5.4	1,670	2.5	23,988	5.0
20	East Kalimantan	13,756	3.15	21	0.13	13,777	3.04	11,360	2.6	177	1.1	11,537	2.5
21	North Sulawesi	4,164	1.49	-	0.00	4,164	1.45	6,849	2.5	23	0.3	6,872	2.4
22	Gorontalo	3,309	2.04	1	0.01	3,310	1.94	7,863	4.9	373	4.3	8,236	4.8
23	Sulawesi Tengah	7,633	2.08	-	0.00	7,633	2.01	12,526	3.4	283	2.3	12,809	3.4
24	South Sulawesi	14,773	1.42	139	0.22	14,912	1.36	23,889	2.3	513	0.8	24,402	2.2
25	West Sulawesi	3,935	2.18	25	0.25	3,960	2.08	8,307	4.6	126	1.3	8,433	4.4
26	South East Sulawesi	4,968	1.42	9	0.07	4,977	1.37	10,635	3.0	37	0.3	10,672	2.9
27	Maluku	2,659	1.01	17	0.11	2,676	0.96	7,180	2.7	107	0.7	7,287	2.6
28	North Maluku	3,418	2.01	-	0.00	3,418	1.89	4,521	2.7	53	0.5	4,574	2.5
29	Bali	8,058	1.92	-	0.00	8,058	1.87	13,409	3.2	218	1.9	13,627	3.2
30	West Nusa Tenggara	10,726	1.89	138	0.18	10,864	1.69	20,079	3.5	3,016	4.0	23,095	3.6
31	East Nusa Tenggara	26,605	3.34	37	0.19	26,642	3.26	52,586	6.6	495	2.5	53,081	6.5
32	Papua	8,100	2.49	-	0.00	8,100	2.45	16,828	5.2	-	0.0	16,828	5.1
33	West Papua	3,420	2.78	-	0.00	3,420	2.68	5,990	4.9	44	1.0	6,034	4.7
	Indonesia	**439,033**	**1.61**	**5,453**	**0.18**	**444,486**	**1.46**	**840,926**	**3.1**	**36,901**	**1.2**	**877,827**	**2.9**

Annex B: Primary Education (Cont'd)

No	Province	Graduation						Transition Rate to Junior Secondary		Gross *Enrollment* Rate			Net Enrollment Rate		
		Total SD	% SD	Total MI	% MI	Total	%	Total New Students	% TR	2009/10	2010/11	2011/12	2009/10	2010/11	2011/12
1	Jakarta	134,088	98.8	24,236	100.0	158,324	99.0	147,943	93.4	119.7	115.8	113.8	97.7	97.9	98.0
2	West Java	680,526	99.9	72,638	99.5	753,164	99.8	720,783	95.7	117.2	119.1	119.3	95.6	96.9	97.0
3	Banten	178,981	99.5	16,133	90.5	195,114	98.7	184,558	94.6	117.9	113.6	113.0	96.2	96.2	96.2
4	Central Java	528,049	99.6	64,469	98.8	592,518	99.6	577,603	97.5	119.0	114.9	115.9	97.1	96.0	96.1
5	Yogyakarta	44,932	96.7	1,283	98.2	46,215	96.7	52,567	113.7	119.5	117.4	119.0	97.5	97.5	97.5
6	East Java	513,950	99.9	107,290	98.2	621,240	99.6	594,326	95.7	118.5	115.7	114.4	96.7	95.8	95.9
7	Aceh	79,083	99.3	16,606	99.2	95,689	99.3	95,702	100.0	109.6	107.9	106.9	89.4	89.5	89.5
8	North Sumatra	267,716	99.3	13,809	99.0	281,525	99.3	277,887	98.7	115.5	112.8	112.3	94.2	94.6	94.6
9	West Sumatra	95,545	99.5	2,231	99.7	97,776	99.5	101,591	103.9	117.5	118.9	118.7	95.9	97.3	97.3
10	Riau	117,920	98.7	5,042	99.8	122,962	98.8	97,017	78.9	114.0	114.4	114.8	93.0	94.0	94.0
11	Kepulauan Riau	31,199	98.5	1,273	100.0	32,472	98.6	22,275	68.6	118.9	121.6	126.8	97.0	97.0	97.5
12	Jambi	58,573	99.6	1,320	98.7	59,893	99.6	54,528	91.0	115.1	116.8	116.3	93.9	95.6	95.6
13	South Sumatra	151,855	99.5	3,206	99.8	155,061	99.5	123,436	79.6	113.7	113.1	113.0	92.7	93.1	93.2
14	Bangka Belitung	23,753	98.2	560	99.6	24,313	98.3	16,560	68.1	119.2	120.8	121.8	97.2	98.4	98.5
15	Bengkulu	32,672	98.1	1,659	99.0	34,331	98.1	32,714	95.3	118.2	118.3	119.2	96.4	97.0	97.2
16	Lampung	152,918	99.6	10,425	93.5	163,343	99.2	146,531	89.7	118.5	113.5	111.4	96.7	95.1	95.4
17	West Kalimantan	103,724	98.6	6,255	98.8	109,979	98.6	73,273	66.6	113.1	111.3	114.0	92.1	92.5	93.2
18	Central Kalimantan	42,173	99.4	3,714	95.5	45,887	99.1	36,764	80.1	117.8	117.2	118.2	96.1	96.6	96.8
19	South Kalimantan	57,009	99.1	9,296	99.6	66,305	99.2	57,169	86.2	116.8	115.6	116.5	95.3	95.3	95.6
20	East Kalimantan	74,400	99.4	2,186	99.7	76,586	99.4	54,522	71.2	117.1	118.4	120.2	95.5	97.0	97.3
21	North Sulawesi	43,469	97.0	936	100.0	44,405	97.1	44,264	99.7	117.1	115.6	115.4	95.1	95.2	95.4
22	Gorontalo	20,922	97.4	1,018	100.0	21,940	97.6	17,063	77.8	112.9	114.1	113.7	92.1	93.4	93.7
23	Sulawesi Tengah	60,042	99.3	1,821	99.2	61,863	99.3	45,593	73.7	116.4	112.6	114.8	95.2	95.4	95.2
24	South Sulawesi	152,425	99.1	8,328	99.3	160,753	99.1	141,502	88.0	116.9	115.2	114.8	95.4	95.4	95.8
25	West Sulawesi	26,920	96.0	1,491	99.8	28,411	96.2	19,491	68.6	110.1	109.2	109.5	87.5	90.4	90.6
26	South East Sulawesi	47,773	99.3	1,783	99.6	49,556	99.3	45,850	92.5	117.0	118.4	117.8	95.4	95.9	96.2
27	Maluku	35,910	98.8	1,065	84.3	36,975	98.3	35,097	94.9	110.8	111.1	109.7	90.4	91.1	91.4
28	North Maluku	24,301	97.8	1,450	100.0	25,751	97.9	20,368	79.1	118.7	121.0	123.2	96.8	97.4	97.6
29	Bali	62,024	98.6	2,324	99.8	64,348	98.7	59,700	92.8	119.1	119.5	120.4	97.2	98.2	98.6
30	West Nusa Tenggara	83,458	99.5	9,684	99.8	93,142	99.5	83,215	89.3	112.5	110.3	108.6	91.8	92.2	92.4
31	East Nusa Tenggara	124,712	97.5	2,391	97.4	127,103	97.5	81,960	64.5	112.9	115.1	117.4	92.1	93.2	93.4
32	Papua	58,715	97.6	745	100.0	59,460	97.6	34,243	57.6	112.7	108.3	113.7	91.9	90.7	90.9
33	West Papua	21,776	96.5	517	100.0	22,293	96.6	14,211	63.7	107.0	107.6	110.7	87.3	89.4	89.5
	Indonesia	**4,131,513**	**99.3**	**397,184**	**98.4**	**4,528,697**	**99.2**	**4,110,306**	**90.8**	**116.8**	**115.3**	**115.4**	**95.2**	**95.4**	**95.5**

Annex B: Primary Education (Cont'd)

No	Province	Teacher Background [1]							Ratios	
		Total [2]	Male [2]	Female [2]	% PNS SD	% PNS MI	< S1	≥ S1	Student / School [3]	Student / Teacher [4]
1	Jakarta	45,522	30,716	14,350	73.2	23.5	42.9	57.1	271	20
2	West Java	255,167	220,275	31,528	64.6	16.0	58.7	41.3	229	20
3	Banten	69,350	56,180	12,284	56.1	12.5	57.7	42.3	271	20
4	Central Java	254,018	210,535	39,720	68.3	20.4	67.3	32.7	167	15
5	Yogyakarta	24,704	18,560	5,994	64.2	37.0	55.9	44.1	153	13
6	East Java	311,577	249,054	55,813	68.8	12.1	50.4	49.6	155	13
7	Aceh	59,417	49,383	9,467	66.1	57.1	77.9	22.1	171	11
8	North Sumatra	108,856	90,677	17,499	67.0	21.5	70.3	29.7	194	18
9	West Sumatra	48,586	45,471	2,996	69.6	50.2	76.7	23.3	166	14
10	Riau	46,640	40,067	6,188	65.8	17.1	83.5	16.5	205	17
11	Kepulauan Riau	10,688	8,865	1,777	56.7	36.3	73.5	26.5	201	16
12	Jambi	29,801	26,766	2,807	71.8	39.5	82.4	17.6	171	15
13	South Sumatra	63,693	56,365	6,849	61.7	24.5	83.6	16.4	203	16
14	Bangka Belitung	9,461	8,803	628	76.2	45.2	88.8	11.2	184	16
15	Bengkulu	15,721	14,367	1,233	85.4	39.1	84.1	15.9	179	16
16	Lampung	66,288	58,170	7,378	71.6	12.3	73.6	26.4	212	17
17	West Kalimantan	44,681	40,018	4,312	76.6	22.8	89.0	11.0	158	16
18	Central Kalimantan	24,736	21,902	2,572	77.8	33.6	87.6	12.4	132	14
19	South Kalimantan	39,774	33,920	5,330	68.7	31.3	76.7	23.3	143	12
20	East Kalimantan	27,607	24,227	3,262	70.8	25.2	79.7	20.3	192	16
21	North Sulawesi	21,934	12,547	9,331	75.5	31.8	85.6	14.4	126	13
22	Gorontalo	10,327	9,435	813	69.1	37.0	80.3	19.7	185	17
23	Sulawesi Tengah	27,631	24,549	2,923	72.6	39.7	88.1	11.9	130	14
24	South Sulawesi	83,144	72,311	10,224	71.6	20.5	68.8	31.2	160	13
25	West Sulawesi	14,644	13,559	963	55.9	27.0	73.3	26.7	138	13
26	South East Sulawesi	26,343	25,015	1,205	54.1	38.8	84.6	15.4	158	14
27	Maluku	17,485	12,751	4,624	69.9	43.6	89.0	11.0	159	16
28	North Maluku	10,344	8,158	2,089	76.7	43.3	89.4	10.6	139	17
29	Bali	27,456	25,062	2,341	81.0	36.3	63.8	36.2	177	16
30	West Nusa Tenggara	45,304	39,773	4,886	70.6	11.6	72.1	27.9	172	14
31	East Nusa Tenggara	46,808	28,384	18,278	60.7	27.0	91.6	8.4	172	17
32	Papua	14,618	9,039	5,549	71.4	47.3	90.8	9.2	145	23
33	West Papua	6,635	4,184	2,420	80.9	35.7	88.7	11.3	131	19
	Indonesia	**1,908,960**	**1,589,088**	**297,633**	**68.0**	**19.9**	**68.0**	**32.0**	**181**	**16**

Note:
1) Teacher Background on the basis of 2009/10 data
2) Excluding *MI* principals
3) 2010/11 data
4) 2009/10 data

Annex C: Junior Secondary Education

No	Province	Institution				Enrollment							
		Total SMP	% Private SMP	Total *MTs*	% Private *MTs*	Total	% Private	Male	Female	Total	GPI	% *MTs*	% Private
1	Jakarta	1,030	69.9	339	67.8	1,369	69.4	220,813	216,621	437,434	0.98	12.2	40.9
2	West Java	3,440	54.3	872	93.1	4,312	62.2	1,033,796	1,028,560	2,062,356	0.99	23.9	42.9
3	Banten	1,036	60.4	378	70.4	1,414	63.1	270,475	262,983	533,458	0.97	26.7	50.0
4	Central Java	3,032	42.9	545	93.9	3,577	50.7	852,871	832,295	1,685,166	0.98	23.5	36.4
5	Yogyakarta	451	49.7	321	79.8	772	62.2	79,079	75,244	154,323	0.95	13.8	28.8
6	East Java	3,605	55.7	417	92.1	4,022	59.5	876,460	866,558	1,743,018	0.99	30.2	43.0
7	Aceh	881	20.4	75	57.3	956	23.3	142,353	140,664	283,017	0.99	25.6	17.7
8	North Sumatra	2,208	52.0	638	96.2	2,846	61.9	410,738	400,310	811,048	0.97	19.4	43.1
9	West Sumatra	689	16.1	38	71.1	727	19.0	143,214	150,408	293,622	1.05	22.6	16.0
10	Riau	868	31.0	56	83.9	924	34.2	139,820	136,540	276,360	0.98	24.7	37.0
11	Kepulaun Riau	272	29.4	230	81.7	502	53.4	33,095	33,088	66,183	1.00	10.1	24.9
12	Jambi	566	17.0	2,437	93.5	3,003	79.1	79,301	79,247	158,548	1.00	24.9	22.6
13	South Sumatra	1,139	35.9	1,502	91.9	2,641	67.8	183,135	177,322	360,457	0.97	15.0	27.6
14	Bangka Belitung	179	25.1	88	60.2	267	36.7	24,412	25,168	49,580	1.03	11.6	19.4
15	Bengkulu	365	9.3	2,903	93.7	3,268	84.3	48,673	47,274	95,947	0.97	10.5	8.7
16	Lampung	1,208	53.0	754	96.0	1,962	69.5	206,540	206,394	412,934	1.00	22.7	45.3
17	West Kalimantan	1,004	34.5	29	75.9	1,033	35.6	108,076	105,300	213,376	0.97	10.7	30.5
18	Central Kalimantan	545	23.1	678	96.5	1,223	63.8	53,807	53,163	106,970	0.99	18.5	23.0
19	South Kalimantan	535	12.0	64	70.3	599	18.2	81,893	80,553	162,446	0.98	34.3	23.8
20	East Kalimantan	640	28.4	245	89.8	885	45.4	83,390	80,342	163,732	0.96	12.7	24.2
21	North Sulawesi	640	39.5	134	83.6	774	47.2	63,536	63,537	127,073	1.00	6.0	28.7
22	Gorontalo	246	8.1	316	74.7	562	45.6	25,644	25,320	50,964	0.99	15.5	12.7
23	Sulawesi Tengah	481	21.2	131	84.7	612	34.8	64,970	64,707	129,677	1.00	22.0	23.9
24	South Sulawesi	1,225	28.0	54	74.1	1,279	29.9	203,665	200,230	403,895	0.98	16.5	25.5
25	West Sulawesi	236	22.5	256	89.1	492	57.1	29,731	28,980	58,711	0.97	16.5	23.6
26	South East Sulawesi	533	9.2	613	93.0	1,146	54.0	69,311	67,047	136,358	0.97	15.6	11.2
27	Maluku	522	34.7	187	75.9	709	45.6	52,117	50,947	103,064	0.98	11.8	30.0
28	North Maluku	262	38.5	64	84.4	326	47.5	30,208	29,540	59,748	0.98	19.8	36.4
29	Bali	366	39.9	126	95.2	492	54.1	92,580	85,645	178,225	0.93	2.7	26.9
30	West Nusa Tenggara	558	19.2	92	84.8	650	28.5	122,859	120,498	243,357	0.98	31.8	32.7
31	East Nusa Tenggara	903	38.8	123	86.2	1,026	44.4	116,321	114,205	230,526	0.98	3.8	33.2
32	Papua	447	26.0	26	96.2	473	29.8	52,563	47,964	100,527	0.91	2.1	25.2
33	West Papua	178	33.1	26	84.6	204	39.7	21,242	20,218	41,460	0.95	8.4	27.2
	Indonesia	**30,290**	**40.8**	**14,757**	**90.3**	**45,047**	**57.0**	**6,016,688**	**5,916,872**	**11,933,560**	**0.98**	**21.7**	**36.1**

Annex C: Junior Secondary Education (Cont'd)

No	Province	Drop-Out						Repeater					
		Total SMP	% DO SMP	Total *MTs*	% DO *MTs*	Total DO	% DO	Total SMP	% Repeater SMP	Total *MTs*	% Repeater *MTs*	Total Repeater	% Repeater
1	Jakarta	1,958	0.44	7	0.00	1,965	0.4	1,097	0.3	19	0.00	1,116	0.25
2	West Java	33,140	1.59	1,858	0.09	34,998	1.7	1,007	0.1	483	0.03	1,490	0.08
3	Banten	5,152	0.84	713	0.14	5,865	1.0	724	0.2	287	0.08	1,011	0.19
4	Central Java	7,743	0.37	1,582	0.09	9,325	0.5	1,889	0.1	937	0.07	2,826	0.17
5	Yogyakarta	314	0.19	14	0.01	328	0.2	406	0.3	116	0.09	522	0.34
6	East Java	13,925	0.77	707	0.04	14,632	0.8	1,666	0.1	1,043	0.09	2,709	0.16
7	Aceh	7,664	2.55	428	0.15	8,092	2.7	1,156	0.5	244	0.11	1,400	0.49
8	North Sumatra	13,205	1.51	597	0.07	13,802	1.6	1,337	0.2	205	0.03	1,542	0.18
9	West Sumatra	2,589	0.81	234	0.08	2,823	0.9	1,178	0.5	202	0.09	1,380	0.48
10	Riau	5,627	2.12	16	0.01	5,643	2.1	1,074	0.5	60	0.03	1,134	0.43
11	Kepulauan Riau	2,238	3.47	0	N/A	2,238	3.5	471	0.8	21	0.04	492	0.76
12	Jambi	4,061	2.56	117	0.08	4,178	2.6	622	0.5	70	0.06	692	0.45
13	South Sumatra	4,798	1.24	190	0.05	4,988	1.3	1,204	0.4	117	0.04	1,321	0.36
14	Bangka Belitung	1,532	3.03	38	0.08	1,570	3.1	439	1.0	27	0.06	466	0.94
15	Bengkulu	1,554	1.63	10	0.01	1,564	1.6	711	0.8	49	0.06	760	0.80
16	Lampung	9,767	2.39	0	N/A	9,767	2.4	880	0.3	74	0.02	954	0.23
17	West Kalimantan	10,112	4.59	9	0.00	10,121	4.6	938	0.5	764	0.39	1,702	0.77
18	Central Kalimantan	2,045	1.91	90	0.09	2,135	2.0	220	0.3	16	0.02	236	0.23
19	South Kalimantan	3,525	2.16	12	0.01	3,537	2.2	469	0.4	195	0.18	664	0.41
20	East Kalimantan	1,911	1.15	3	0.00	1,914	1.2	333	0.2	29	0.02	362	0.22
21	North Sulawesi	2,713	2.24	0	N/A	2,713	2.2	293	0.3	19	0.02	312	0.26
22	Gorontalo	1,709	3.25	26	0.05	1,735	3.3	585	1.3	9	0.02	594	1.15
23	Sulawesi Tengah	4,447	3.71	1	0.00	4,448	3.7	772	0.8	21	0.02	793	0.66
24	South Sulawesi	3,843	0.90	148	0.04	3,991	0.9	1,025	0.3	135	0.04	1,160	0.28
25	West Sulawesi	522	0.86	23	0.04	545	0.9	228	0.5	47	0.09	275	0.48
26	South East Sulawesi	830	0.58	50	0.04	880	0.6	792	0.7	26	0.02	818	0.61
27	Maluku	2,936	2.96	16	0.02	2,952	3.0	540	0.6	1	0.00	541	0.55
28	North Maluku	1,024	1.78	0	N/A	1,024	1.8	429	0.9	29	0.06	458	0.76
29	Bali	2,910	1.64	1	0.00	2,911	1.6	84	0.0	8	0.00	92	0.05
30	West Nusa Tenggara	2,567	0.91	289	0.12	2,856	1.0	563	0.3	215	0.13	778	0.31
31	East Nusa Tenggara	13,546	5.78	84	0.04	13,630	5.8	874	0.4	28	0.01	902	0.39
32	Papua	3,122	3.11	0	N/A	3,122	3.1	875	0.9	7	0.01	882	0.88
33	West Papua	562	1.46	0	N/A	562	1.5	278	0.8	5	0.01	283	0.73
	Indonesia	**173,591**	**1.41**	**7,263**	**0.06**	**180,854**	**1.5**	**25,159**	**0.3**	**5,508**	**0.06**	**30,667**	**0.26**

Annex C: Junior Secondary Education (Cont'd)

No	Province	Graduation						Transition Rate to Senior Secondary					
		Total SMP	% SMP	Total *MTs*	% *MTs*	Total	% Graduation	Total Number of New Learners Grade 1 SMA/K	% TR SMP	Total Number of New Learners Grade 1 MA	% TR I *MTs*	Total	% TR
1	Jakarta	126,381	98.6	28,256	100.0	154,637	98.9	134,228	106.2	18,698	66.2	152,926	98.5
2	West Java	425,899	99.5	123,028	96.6	548,927	98.8	595,343	97.6	179,621	146.0	595,343	83.7
3	Banten	109,076	99.0	38,704	96.2	147,780	98.2	157,231	98.7	49,610	128.2	157,231	79.6
4	Central Java	434,936	98.7	99,435	95.5	534,371	98.1	570,285	99.1	139,238	140.0	570,285	87.6
5	Yogyakarta	45,286	99.2	2,593	98.5	47,879	99.2	52,715	99.6	7,608	293.4	52,715	88.3
6	East Java	404,226	98.6	153,440	95.5	557,666	97.7	579,939	99.3	178,455	116.3	579,939	88.2
7	Aceh	66,068	98.4	19,692	95.2	85,760	97.7	90,194	97.1	26,012	132.1	90,194	91.7
8	North Sumatra	231,915	99.0	50,257	98.9	282,172	99.0	286,294	99.9	54,576	108.6	286,294	85.8
9	West Sumatra	73,211	99.1	17,500	89.4	90,711	97.1	96,134	98.7	23,842	136.2	96,134	78.5
10	Riau	55,315	98.6	23,588	99.5	78,903	98.9	77,372	96.1	24,204	102.6	77,372	78.0
11	Kepulauan Riau	16,184	99.3	2,071	97.9	18,255	99.1	17,772	96.3	2,189	105.7	17,772	98.2
12	Jambi	32,463	99.0	11,679	98.3	44,142	98.8	46,441	98.9	14,326	122.7	46,441	72.7
13	South Sumatra	110,315	99.2	14,511	99.0	124,826	99.2	121,175	92.0	19,701	135.8	121,175	93.7
14	Bangka Belitung	12,367	99.1	1,569	97.8	13,936	98.9	14,254	97.2	2,238	142.6	14,254	90.7
15	Bengkulu	27,127	98.5	2,965	94.0	30,092	98.0	29,268	94.7	3,582	120.8	29,268	98.4
16	Lampung	98,900	98.8	26,080	99.8	124,980	99.0	124,161	91.3	33,887	129.9	124,161	88.1
17	West Kalimantan	57,838	98.6	6,045	98.1	63,883	98.6	62,701	93.7	8,486	140.4	62,701	102.2
18	Central Kalimantan	23,711	99.3	6,117	97.9	29,828	99.0	29,733	95.9	6,997	114.4	29,733	92.2
19	South Kalimantan	34,505	98.9	17,134	99.6	51,639	99.1	52,380	93.2	20,218	118.0	52,380	83.6
20	East Kalimantan	48,215	98.6	3,934	96.7	52,149	98.5	55,358	99.3	7,477	190.1	55,358	91.0
21	North Sulawesi	33,371	99.1	1,954	99.9	35,325	99.2	35,482	96.4	3,301	168.9	35,482	96.7
22	Gorontalo	13,578	98.6	2,144	98.2	15,722	98.5	16,095	96.7	2,971	138.6	16,095	90.7
23	Sulawesi Tengah	25,336	99.1	6,903	92.8	32,239	97.7	35,382	96.8	10,845	157.1	35,382	76.8
24	South Sulawesi	119,877	98.9	17,828	98.5	137,705	98.9	139,740	96.0	24,666	138.4	139,740	91.7
25	West Sulawesi	15,975	99.3	2,663	99.9	18,638	99.4	18,931	94.8	3,788	142.2	18,931	92.3
26	South East Sulawesi	36,310	99.0	7,083	99.8	43,393	99.1	42,792	96.4	7,802	110.2	42,792	89.0
27	Maluku	24,664	99.0	2,515	99.2	27,179	99.0	27,822	94.3	4,564	181.5	27,822	92.5
28	North Maluku	14,912	98.6	4,545	100.0	19,457	98.9	18,586	96.4	4,218	92.8	18,586	88.0
29	Bali	54,473	99.2	1,393	99.6	55,866	99.2	54,245	96.4	1,747	125.4	54,245	104.7
30	West Nusa Tenggara	52,964	98.5	16,885	99.4	69,849	98.7	79,696	97.6	28,004	165.9	79,696	78.6
31	East Nusa Tenggara	68,415	99.4	2,548	98.1	70,963	99.3	69,696	97.0	3,359	131.8	69,696	101.6
32	Papua	30,354	98.8	523	87.2	30,877	98.6	30,803	98.8	827	158.1	30,803	101.0
33	West Papua	9,956	98.9	919	100.0	10,875	99.0	10,925	96.2	1,350	146.9	10,925	95.9
	Indonesia	**2,934,123**	**98.9**	**716,501**	**96.8**	**3,650,624**	**98.5**	**3,773,173**	**97.9**	**918,407**	**128.2**	**3,791,871**	**87.9**

Annex C: Junior Secondary Education (Cont'd)

No	Province	Gross *Enrollment* Rate			Net *Enrollment* Rate			Teacher Background [1]							Ratios	
		2009/10	2010/11	2011/12	2009/10	2010/11	2011/12	Total [2]	Male [2]	Female [2]	% PNS SMP	% PNS *MTs*	< S1	≥ S1	Student / School [3]	Student / Teacher [4]
1	Jakarta	117.2	117.3	117.5	89.0	89.6	93.3	24,686	13,465	11,221	48.8	36.6	13.1	86.9	320	15
2	West Java	94.0	94.0	94.6	71.4	72.0	74.1	113,932	71,825	42,107	52.4	13.5	15.5	84.5	478	15
3	Banten	93.8	94.3	95.7	71.5	72.3	74.0	31,094	17,663	13,431	41.3	12.3	24.6	75.4	377	14
4	Central Java	99.4	99.7	100.4	75.9	78.3	78.5	90,140	62,544	27,596	67.3	24.0	15.8	84.2	471	15
5	Yogyakarta	115.5	115.7	118.7	86.6	90.3	91.3	11,900	7,787	4,113	72.2	51.5	17.2	82.8	200	10
6	East Java	105.7	105.7	107.2	80.5	82.4	82.7	128,096	82,966	45,130	63.6	22.7	16.0	84.0	433	12
7	Aceh	104.5	104.8	107.6	79.5	81.2	83.4	24,401	18,568	5,833	69.2	45.0	28.6	71.4	296	10
8	North Sumatra	99.6	99.6	102.4	76.3	77.5	81.2	53,577	33,329	20,248	55.1	17.8	24.6	75.4	285	13
9	West Sumatra	108.9	109.1	111.2	83.1	84.3	86.7	24,567	18,299	6,268	78.9	47.4	22.9	77.1	404	11
10	Riau	104.5	104.5	105.4	79.9	81.2	82.4	21,325	14,948	6,377	50.3	17.2	32.5	67.5	299	11
11	Kepulauan Riau	110.1	110.8	110.9	83.3	85.6	86.3	4,021	3,004	1,017	57.5	30.1	27.2	72.8	132	12
12	Jambi	100.8	101.2	101.3	75.2	76.3	79.0	13,054	10,058	2,996	64.3	29.1	27.9	72.1	53	9
13	South Sumatra	92.9	93.7	93.8	70.3	71.0	73.7	25,219	18,326	6,893	53.7	17.4	25.0	75.0	136	11
14	Bangka Belitung	95.6	96.4	98.6	71.4	73.3	75.9	2,989	2,409	580	71.8	30.4	30.6	69.4	186	10
15	Bengkulu	100.1	100.2	100.7	74.9	75.6	78.9	7,605	6,496	1,109	70.0	49.6	20.5	79.5	29	9
16	Lampung	94.6	94.6	94.9	72.1	72.2	74.4	28,232	16,855	11,377	53.7	12.2	40.9	59.1	210	13
17	West Kalimantan	82.1	84.6	86.9	61.9	64.2	67.9	13,178	9,572	3,606	55.6	27.7	41.5	58.5	207	12
18	Central Kalimantan	89.4	84.0	87.3	67.4	63.9	67.1	8,978	7,195	1,783	75.4	34.0	25.5	74.5	87	11
19	South Kalimantan	86.8	87.3	89.4	65.6	66.1	68.2	13,115	10,009	3,106	78.8	38.8	19.2	80.8	271	12
20	East Kalimantan	95.3	95.8	97.6	71.8	72.8	76.9	11,781	8,950	2,831	64.5	36.3	18.9	81.1	185	13
21	North Sulawesi	98.7	99.2	99.6	74.3	75.6	79.4	8,909	6,207	2,702	75.1	44.4	36.3	63.7	164	12
22	Gorontalo	90.4	90.6	90.9	67.7	68.3	69.6	4,469	3,674	795	75.4	51.9	29.1	70.9	91	10
23	Sulawesi Tengah	90.2	90.4	90.8	68.0	68.4	70.9	10,267	7,969	2,298	81.0	31.4	25.4	74.6	212	9
24	South Sulawesi	97.2	97.5	99.0	73.6	74.1	77.6	34,474	25,460	9,014	70.2	19.8	16.2	83.8	316	11
25	West Sulawesi	92.0	92.2	94.4	70.0	71.5	72.9	4,385	3,352	1,033	59.8	24.6	18.6	81.4	119	10
26	South East Sulawesi	97.2	97.6	100.6	73.4	74.3	79.7	11,092	9,447	1,645	69.7	38.9	18.3	81.7	119	10
27	Maluku	97.7	97.8	102.4	73.5	74.6	79.7	7,345	5,299	2,046	77.1	42.2	56.0	44.0	145	11
28	North Maluku	96.8	97.2	98.1	74.4	74.6	76.6	4,706	3,094	1,612	74.1	34.7	18.0	82.0	183	10
29	Bali	105.9	106.1	110.0	79.3	80.4	87.1	10,996	8,698	2,298	73.8	31.7	15.7	84.3	362	13
30	West Nusa Tenggara	100.9	101.8	103.8	76.3	77.1	80.0	21,808	15,564	6,244	62.8	12.7	19.6	80.4	374	10
31	East Nusa Tenggara	79.9	80.0	82.7	59.7	60.8	66.6	14,751	10,058	4,693	56.4	36.2	40.1	59.9	225	13
32	Papua	80.7	81.0	81.6	61.2	62.2	62.5	4,893	3,556	1,337	73.0	38.4	32.1	67.9	213	14
33	West Papua	79.6	79.7	80.5	60.7	61.2	62.5	2,205	1,544	661	80.9	44.1	30.0	70.0	203	13
	Indonesia	**98.1**	**98.2**	**99.5**	**74.5**	**75.6**	**77.7**	**792,190**	**538,190**	**254,000**	**62.0**	**22.7**	**21.5**	**78.5**	**265**	**12**

Note:
1) Teacher Background on the basis of 2009/10 data
2) Excluding SMP and *MTs* principals
3) 2010/11 data
4) 2009/10 data

Annex D: Senior Secondary Education

No	Province	Institution				Enrollment							
		Total *SMA & SMK*	% Private *SMA & SMK*	Total *MA*	% Private *MA*	Total	% Private	Male	Female	Total	GPI	% *MA*	% Private
1	Jakarta	1,102	83.8	87	74.7	1,189	83.1	220,813	216,621	437,434	0.98	12.2	37.3
2	West Java	2,841	77.9	911	91.5	3,752	81.2	1,033,796	1,028,560	2,062,356	0.99	23.9	33.1
3	Banten	840	76.9	310	93.9	1,150	81.5	270,475	262,983	533,458	0.97	26.7	38.3
4	Central Java	2,053	72.7	539	88.3	2,592	76.0	852,871	832,295	1,685,166	0.98	23.5	26.8
5	Yogyakarta	356	66.9	39	61.5	395	66.3	79,079	75,244	154,323	0.95	13.8	26.4
6	East Java	2,485	73.2	1,252	92.8	3,737	79.7	876,460	866,558	1,743,018	0.99	30.2	30.6
7	Aceh	546	28.4	194	64.9	740	38.0	142,353	140,664	283,017	0.99	25.6	12.8
8	North Sumatra	1,744	69.2	435	90.6	2,179	73.4	410,738	400,310	811,048	0.97	19.4	34.9
9	West Sumatra	427	37.2	184	74.5	611	48.4	143,214	150,408	293,622	1.05	22.6	12.0
10	Riau	525	44.2	237	92.4	762	59.2	139,820	136,540	276,360	0.98	24.7	26.7
11	Kepulauan Riau	160	48.8	28	82.1	188	53.7	33,095	33,088	66,183	1.00	10.1	22.1
12	Jambi	328	41.5	176	82.4	504	55.8	79,301	79,247	158,548	1.00	24.9	15.0
13	South Sumatra	725	55.9	176	88.1	901	62.2	183,135	177,322	360,457	0.97	15.0	21.8
14	Bangka Belitung	110	43.6	20	80.0	130	49.2	24,412	25,168	49,580	1.03	11.6	16.1
15	Bengkulu	191	29.3	43	67.4	234	36.3	48,673	47,274	95,947	0.97	10.5	6.5
16	Lampung	694	65.6	268	93.7	962	73.4	206,540	206,394	412,934	1.00	22.7	35.6
17	West Kalimantan	477	47.6	103	85.4	580	54.3	108,076	105,300	213,376	0.97	10.7	26.9
18	Central Kalimantan	276	33.7	57	75.4	333	40.8	53,807	53,163	106,970	0.99	18.5	17.2
19	South Kalimantan	254	37.0	133	69.2	387	48.1	81,893	80,553	162,446	0.98	34.3	14.5
20	East Kalimantan	423	51.5	59	79.7	482	55.0	83,390	80,342	163,732	0.96	12.7	20.1
21	North Sulawesi	330	54.2	33	90.9	363	57.6	63,536	63,537	127,073	1.00	6.0	27.4
22	Gorontalo	88	20.5	34	82.4	122	37.7	25,644	25,320	50,964	0.99	15.5	7.7
23	Sulawesi Tengah	266	35.0	113	90.3	379	51.5	64,970	64,707	129,677	1.00	22.0	15.4
24	South Sulawesi	804	52.0	297	89.6	1,101	62.1	203,665	200,230	403,895	0.98	16.5	19.2
25	West Sulawesi	123	38.2	67	92.5	190	57.4	29,731	28,980	58,711	0.97	16.5	16.8
26	South East Sulawesi	319	31.3	96	83.3	415	43.4	69,311	67,047	136,358	0.97	15.6	7.4
27	Maluku	274	39.1	41	78.0	315	44.1	52,117	50,947	103,064	0.98	11.8	26.1
28	North Maluku	214	38.8	53	83.0	267	47.6	30,208	29,540	59,748	0.98	19.8	29.2
29	Bali	301	61.5	16	75.0	317	62.1	92,580	85,645	178,225	0.93	2.7	26.2
30	West Nusa Tenggara	409	48.7	364	95.3	773	70.6	122,859	120,498	243,357	0.98	31.8	18.3
31	East Nusa Tenggara	419	50.1	25	64.0	444	50.9	116,321	114,205	230,526	0.98	3.8	32.3
32	Papua	247	42.1	14	92.9	261	44.8	52,563	47,964	100,527	0.91	2.1	24.2
33	West Papua	119	45.4	11	72.7	130	47.7	21,242	20,218	41,460	0.95	8.4	25.4
	Indonesia	**20,470**	**62.0**	**6415.0**	**88.2**	**26,885**	**68.2**	**6,016,688**	**5,916,872**	**11,933,560**	**0.98**	**21.7**	**27.8**

Annex D: Senior Secondary Education (Cont'd)

No	Province	Drop-Out						Repeater					
		Total SMA & SMK	% DO SMA & SMK	Total MA	% DO MA	TOTAL DO	% Total DO	Total SMA & SMK	% Repeater SMA & SMK	Total MA	% MA	Total	% Repeater
1	Jakarta	11,455	2.51	4	0.00	11,459	2.51	1,904	0.4	114	0.7	2,018	0.4
2	West Java	32,370	2.80	406	0.04	32,776	2.83	2,209	0.2	196	0.2	2,405	0.2
3	Banten	13,863	4.40	8	0.00	13,871	4.41	666	0.2	98	0.2	764	0.2
4	Central Java	19,332	1.88	351	0.03	19,683	1.91	3,046	0.3	85	0.1	3,131	0.3
5	Yogyakarta	3,202	2.31	30	0.02	3,232	2.33	580	0.4	109	1.2	689	0.5
6	East Java	23,737	1.90	1,285	0.10	25,022	2.01	3,147	0.3	106	0.1	3,253	0.3
7	Aceh	7,486	3.31	772	0.34	8,258	3.65	1,619	0.9	70	0.2	1,689	0.7
8	North Sumatra	14,528	2.25	156	0.02	14,684	2.27	1,383	0.2	100	0.2	1,483	0.2
9	West Sumatra	8,787	3.99	212	0.10	8,999	4.08	1,498	0.8	193	0.8	1,691	0.8
10	R i a u	6,824	3.62	2	0.00	6,826	3.62	822	0.5	55	0.2	877	0.5
11	Kepulauan Riau	1,694	3.88	0	0.00	1,694	3.88	244	0.6	0	0.0	244	0.6
12	J a m b i	3,905	3.56	38	0.03	3,943	3.59	340	0.4	56	0.3	396	0.4
13	South Sumatra	11,502	4.26	10	0.00	11,512	4.26	606	0.2	150	0.6	756	0.3
14	Bangka Belitung	1,951	4.69	1	0.00	1,952	4.69	343	0.9	33	1.3	376	0.9
15	Bengkulu	2,394	3.26	51	0.07	2,445	3.33	280	0.4	291	4.7	571	0.8
16	Lampung	8,461	3.54	0	0.00	8,461	3.54	507	0.2	177	0.6	684	0.3
17	West Kalimantan	10,030	7.18	11	0.01	10,041	7.19	1,341	1.0	5	0.0	1,346	1.0
18	Central Kalimantan	3,245	4.59	3	0.00	3,248	4.59	215	0.3	163	2.1	378	0.5
19	South Kalimantan	3,809	3.74	12	0.01	3,821	3.75	588	0.7	42	0.2	630	0.6
20	East Kalimantan	3,847	2.97	7	0.01	3,854	2.97	623	0.5	389	5.0	1,012	0.8
21	North Sulawesi	2,162	2.44	0	0.00	2,162	2.44	266	0.3	12	0.7	278	0.3
22	Gorontalo	884	2.53	0	0.00	884	2.53	455	1.5	135	3.2	590	1.7
23	Sulawesi Tengah	3,282	3.68	0	0.00	3,282	3.68	747	0.9	186	1.9	933	1.0
24	South Sulawesi	6,980	2.34	205	0.07	7,185	2.41	1,245	0.5	337	1.0	1,582	0.5
25	West Sulawesi	1,900	4.86	66	0.17	1,966	5.03	231	0.7	36	0.7	267	0.7
26	South East Sulawesi	5,701	5.94	25	0.03	5,726	5.96	475	0.5	94	1.0	569	0.6
27	M a l u k u	2,644	3.44	6	0.01	2,650	3.45	499	0.7	9	0.2	508	0.7
28	North Maluku	1,677	3.59	0	0.00	1,677	3.59	404	1.0	25	0.4	429	0.9
29	B a l i	3,166	2.42	2	0.00	3,168	2.42	104	0.1	18	0.9	122	0.1
30	West Nusa Tenggara	3,216	1.86	390	0.23	3,606	2.08	893	0.7	63	0.1	956	0.6
31	East Nusa Tenggara	12,234	7.72	1	0.00	12,235	7.72	1,226	0.8	93	2.3	1,319	0.8
32	Papua	3,522	5.24	0	0.00	3,522	5.24	984	1.5	16	2.9	1,000	1.5
33	West Papua	1,125	3.33	0	0.00	1,125	3.33	486	1.5	1	0.1	487	1.4
	Indonesia	**240,915**	**2.95**	**4,054**	**0.05**	**244,969**	**3.00**	**29,976**	**0.4**	**33,433**	**0.4**	**33,433**	**0.4**

Annex D: Senior Secondary Education (Cont'd)

No	Province	Graduation			Transition Rate to Senior Secondary		Gross *Enrollment* Rate			Net *Enrollment* Rate		
		Total	% SMA & SMK	% MA	Total Number of New Students at HE Institutions	% TR SMA & SMK	2009/10	2010/11	2011/12	2009/10	2010/11	2011/12
1	Jakarta	140,573	97.7	100.0	320,405	227.9	119.4	119.2	99.1	96.9	96.4	77.4
2	West Java	343,087	90.9	98.9	114,860	33.5	57.5	59.6	67.8	46.4	46.5	52.8
3	Banten	93,368	91.2	99.7	9,850	10.5	59.9	60.6	73.1	48.4	48.9	54.6
4	Central Java	302,270	96.4	95.0	92,123	30.5	64.6	64.9	71.0	49.3	51.5	52.8
5	Yogyakarta	40,602	94.8	99.7	48,132	118.5	101.3	102.8	103.5	80.9	82.1	71.4
6	East Java	369,386	95.3	94.5	148,820	40.3	71.8	72.4	80.2	57.0	57.4	58.1
7	Aceh	62,797	88.7	95.6	29,809	47.5	75.0	75.6	96.0	60.4	60.5	70.5
8	North Sumatra	189,990	97.8	91.5	61,832	32.5	86.4	86.5	83.6	68.2	68.7	62.8
9	West Sumatra	63,950	95.1	90.8	27,849	43.5	83.5	84.2	76.7	68.0	68.2	56.9
10	Riau	53,655	93.4	97.6	15,375	28.7	61.1	61.3	88.3	50.3	50.5	67.2
11	Kepulauan Riau	12,263	98.8	96.1	3,636	29.7	87.5	87.6	75.5	69.7	72.3	55.0
12	Jambi	31,276	93.4	93.7	9,405	30.1	70.3	70.9	75.3	56.1	57.0	58.0
13	South Sumatra	76,629	94.7	99.8	27,128	35.4	61.5	63.2	75.9	48.2	49.9	59.1
14	Bangka Belitung	12,036	97.4	92.2	1,376	11.4	82.3	83.4	83.0	64.9	65.5	62.1
15	Bengkulu	20,754	91.5	91.5	7,848	37.8	81.2	81.7	89.0	65.7	66.5	69.1
16	Lampung	68,205	92.3	99.6	17,843	26.2	57.4	58.0	63.5	48.9	48.9	48.1
17	West Kalimantan	38,436	92.4	78.5	10,886	28.3	61.8	62.9	58.2	48.2	49.3	45.8
18	Central Kalimantan	19,690	93.4	97.3	5,230	26.6	62.7	63.2	73.2	50.6	50.6	56.9
19	South Kalimantan	26,663	94.3	96.4	11,082	41.6	63.5	64.5	62.2	51.1	53.0	47.0
20	East Kalimantan	36,180	94.7	98.7	15,902	44.0	91.1	91.8	82.2	73.5	74.9	65.4
21	North Sulawesi	24,635	95.0	91.1	13,436	54.5	84.0	85.5	92.1	65.0	68.1	71.2
22	Gorontalo	9,612	96.1	96.0	7,985	83.1	78.6	79.4	71.8	64.1	64.5	54.7
23	Sulawesi Tengah	25,216	93.4	92.6	9,693	38.4	77.6	78.6	66.6	67.7	67.8	52.3
24	South Sulawesi	83,978	95.4	98.6	47,843	57.0	64.1	65.3	78.4	53.5	54.7	61.7
25	West Sulawesi	10,832	95.7	99.7	2,316	21.4	57.6	58.2	84.1	46.3	47.0	63.7
26	South East Sulawesi	24,734	80.2	99.5	9,920	40.1	77.0	77.3	93.3	63.9	65.2	71.7
27	Maluku	22,105	91.6	99.9	9,427	42.6	92.2	93.5	93.9	85.4	81.3	72.6
28	North Maluku	12,837	83.9	97.8	4,001	31.2	72.3	72.8	99.0	58.6	58.9	67.7
29	Bali	39,782	96.7	91.0	15,685	39.4	89.5	90.6	106.3	73.4	75.1	81.7
30	West Nusa Tenggara	53,154	94.0	99.1	14,908	28.0	68.5	69.6	78.4	55.8	56.8	58.8
31	East Nusa Tenggara	43,516	91.0	95.0	11,302	26.0	65.8	66.5	61.8	52.2	52.3	49.6
32	Papua	18,402	91.9	100.0	10,049	54.6	64.1	64.4	66.8	50.2	50.4	45.8
33	West Papua	9,262	93.2	100.0	4,151	44.8	61.7	62.4	58.4	48.2	48.3	43.3
	Indonesia	**2,379,875**	**94.1**	**96.1**	**1,140,107**	**47.9**	**61.7**	**70.5**	**76.4**	**55.7**	**56.5**	**57.7**

Annex D: Senior Secondary Education (Cont'd)

No	Province	Teacher Background [1]							Ratios	
		Total [2]	Male [2]	Female [2]	% PNS SMA & SMK	% PNS MA	< S1	> S1	Student / School [3]	Student / Teacher [4]
1	Jakarta	25,056	11,549	13,507	33.7	41.9	5.8	94.2	367.9	5.7
2	West Java	66,186	34,334	31,852	45.5	20.4	10.0	90.0	549.7	13.2
3	Banten	20,292	11,218	9,074	37.4	13.9	11.5	88.5	463.9	12.4
4	Central Java	59,883	32,405	27,478	49.4	28.7	7.5	92.5	650.1	12.2
5	Yogyakarta	12,672	6,586	6,086	59.5	49.4	7.1	92.9	390.7	5.0
6	East Java	80,758	43,775	36,983	53.9	24.2	10.1	89.9	466.4	10.6
7	Aceh	19,259	7,088	12,171	71.7	42.1	10.3	89.7	382.5	8.1
8	North Sumatra	40,621	17,181	23,440	45.9	20.0	13.8	86.2	372.2	8.1
9	West Sumatra	19,209	6,591	12,618	71.1	46.1	9.0	91.0	480.6	7.6
10	R i a u	15,012	5,868	9,144	47.6	20.1	12.7	87.3	362.7	10.3
11	Kepulauan Riau	3,241	1,412	1,829	58.9	29.6	10.5	89.5	352.0	7.2
12	J a m b i	8,831	4,217	4,614	58.4	26.2	12.4	87.6	314.6	4.3
13	South Sumatra	17,469	6,682	10,787	50.2	26.3	10.1	89.9	400.1	6.3
14	Bangka Belitung	2,512	1,268	1,244	62.0	31.0	18.6	81.4	381.4	7.0
15	Bengkulu	5,779	2,412	3,367	68.6	44.4	10.2	89.8	410.0	2.4
16	Lampung	17,396	7,651	9,745	48.4	23.6	21.8	78.2	429.2	8.7
17	West Kalimantan	8,741	4,338	4,403	55.5	20.1	17.9	82.1	367.9	9.8
18	Central Kalimantan	6,272	2,737	3,535	77.4	42.2	12.1	87.9	321.2	5.3
19	South Kalimantan	8,216	3,773	4,443	75.5	30.4	10.9	89.1	419.8	10.9
20	East Kalimantan	9,207	4,504	4,703	55.6	45.5	10.5	89.5	339.7	7.1
21	North Sulawesi	6,301	2,503	3,798	73.8	45.0	10.3	89.7	350.1	7.6
22	Gorontalo	2,654	996	1,658	83.1	60.4	10.7	89.3	417.7	6.2
23	Sulawesi Tengah	6,938	3,320	3,618	81.3	33.4	12.7	87.3	342.2	8.8
24	South Sulawesi	22,540	10,590	11,950	72.1	27.2	9.6	90.4	366.8	8.4
25	West Sulawesi	2,622	1,335	1,287	62.3	37.6	9.8	90.2	309.0	6.9
26	South East Sulawesi	8,243	4,343	3,900	68.1	37.9	8.5	91.5	328.6	6.0
27	M a l u k u	6,355	2,627	3,728	73.0	43.5	16.9	83.1	327.2	7.3
28	North Maluku	3,293	1,637	1,656	77.0	36.8	8.3	91.7	223.8	6.9
29	B a l i	8,959	5,293	3,666	68.1	41.2	7.4	92.6	562.2	6.6
30	West Nusa Tenggara	15,423	8,358	7,065	58.6	11.6	11.4	88.6	314.8	10.3
31	East Nusa Tenggara	10,098	5,471	4,627	57.6	40.0	14.1	85.9	519.2	9.2
32	Papua	4,546	2,214	2,332	68.5	40.2	11.9	88.1	385.2	8.6
33	West Papua	1,735	790	945	76.4	55.7	8.1	91.9	318.9	7.6
	Indonesia	**546,319**	**265,066**	**281,253**	**54.8**	**26.3**	**10.7**	**89.3**	**443.9**	**9.0**

Note:
1) Teacher Background on the basis of 2009/10 data
2) Excluding *MI* principals
3) 2010/11 data
4) 2009/10 data

Annex E: Higher Education

No	Province	Institution				Enrollment							
		Total HE Institutes	% Private HE	Total Islamic HE Institutes	% Private Islamic HE Institutes	Total	% Private	Male	Female	Total	GPI	% Islamic HE Institutes	% Private
1	Jakarta	328	98.5	32	100.0	360	98.6	594,415	670,410	1,264,825	1.13	0.7	44.0
2	West Java	400	98.3	93	97.8	493	98.2	299,933	248,171	548,104	0.83	7.4	72.6
3	Banten	95	98.9	29	93.1	124	97.6	39,666	34,410	74,076	0.87	45.6	46.9
4	Central Java	247	97.6	40	85.0	287	95.8	195,006	205,885	400,891	1.06	10.5	66.0
5	DI Yogyakarta	125	97.6	14	92.9	139	97.1	141,918	125,073	266,991	0.88	7.7	59.4
6	East Java	348	96.8	127	94.5	475	96.2	387,116	369,618	756,734	0.95	18.8	75.3
7	Aceh	103	97.1	20	85.0	123	95.1	69,974	92,689	162,663	1.32	21.0	66.7
8	North Sumatra	250	98.8	36	94.4	286	98.3	142,448	172,550	314,998	1.21	8.2	77.9
9	West Sumatra	114	95.6	23	87.0	137	94.2	65,046	89,404	154,450	1.37	13.4	51.5
10	Riau	79	98.7	21	95.2	100	98.0	41,555	43,359	84,914	1.04	33.2	51.6
11	Kepulauan Riau	29	96.6	4	100.0	33	97.0	9,898	10,162	20,060	1.03	10.2	93.3
12	Jambi	39	97.4	17	88.2	56	94.6	28,653	29,303	57,956	1.02	32.5	64.5
13	South Sumatra	122	98.4	13	92.3	135	97.8	60,834	65,284	126,118	1.07	10.1	73.2
14	Bangka Belitung	9	77.8	1	0.0	10	70.0	5,507	4,673	10,180	0.85	14.3	64.4
15	Bengkulu	19	94.7	5	60.0	24	87.5	19,112	19,870	38,982	1.04	18.7	55.3
16	Lampung	74	97.3	14	85.7	88	95.5	40,481	48,037	88,518	1.19	14.8	61.1
17	West Kalimantan	46	95.7	8	87.5	54	94.4	27,089	25,410	52,499	0.94	11.3	55.0
18	Central Kalimantan	25	96.0	5	80.0	30	93.3	13,132	12,637	25,769	0.96	15.0	50.8
19	South Kalimantan	48	95.8	11	90.9	59	94.9	34,623	34,677	69,300	1.00	23.2	63.1
20	East Kalimantan	67	94.0	11	90.9	78	93.6	40,889	39,633	80,522	0.97	8.6	53.2
21	North Sulawesi	53	94.3	1	0.0	54	92.6	25,578	27,118	52,696	1.06	2.8	41.5
22	Gorontalo	13	92.3	1	0.0	14	85.7	13,982	16,739	30,721	1.20	13.4	43.8
23	Sulawesi Tengah	24	95.8	6	83.3	30	93.3	25,304	20,314	45,618	0.80	8.4	61.7
24	South Sulawesi	221	98.2	28	85.7	249	96.8	121,310	136,785	258,095	1.13	14.4	69.1
25	West Sulawesi	13	100.0	6	100.0	19	100.0	5,413	6,671	12,084	1.23	10.4	100.0
26	South East Sulawesi	40	97.5	8	87.5	48	95.8	23,269	22,485	45,754	0.97	8.4	63.4
27	Maluku	26	88.5	5	80.0	31	87.1	21,073	20,553	41,626	0.98	11.9	45.5
28	North Maluku	17	94.1	2	50.0	19	89.5	9,049	11,362	20,411	1.26	10.8	63.1
29	Bali	62	93.5	2	100.0	64	93.8	31,729	30,455	62,184	0.96	0.3	56.6
30	West Nusa Tenggara	50	98.0	19	94.7	69	97.1	49,632	42,393	92,025	0.85	33.4	76.4
31	East Nusa Tenggara	38	92.1	1	100.0	39	92.3	23,313	23,349	46,662	1.00	0.0	61.9
32	Papua	45	95.6	4	75.0	49	93.9	22,889	17,037	39,926	0.74	2.2	69.4
33	West Papua	16	93.8	2	50.0	18	88.9	10,351	7,598	17,949	0.73	2.5	75.8
	Indonesia	**3,185**	**97.2**	**609**	**91.5**	**3,794**	**96.3**	**2,640,187**	**2,724,114**	**5,364,301**	**1.03**	**10.7**	**61.7**

Annex E: Higher Education (Cont'd)

No	Province	Graduation	Gross Enrollment Rate	Lectures Education Background [1]			Ratios	
		Total	2011/12	Total	< S2	> S3	Student / Institution	Student / Lecture
1	Jakarta	220,107	120.8	32,840	35.5	21.2	3,513.4	38.5
2	West Java	116,546	15.2	31,005	32.2	28.0	1,111.8	17.7
3	Banten	18,176	10.7	8,003	26.4	24.2	597.4	9.3
4	Central Java	85,008	15.4	24,434	30.2	31.4	1,396.8	16.4
5	Yogyakarta	34,462	75.7	14,553	32.1	29.6	1,920.8	18.3
6	East Java	134,015	24.1	24,318	17.2	32.0	1,593.1	31.1
7	Aceh	25,262	36.8	7,626	48.6	33.6	1,322.5	21.3
8	North Sumatra	50,630	32.0	14,029	49.3	23.5	1,101.4	22.5
9	West Sumatra	25,094	40.5	7,141	39.9	44.8	1,127.4	21.6
10	Riau	15,542	19.7	4,270	43.5	39.1	849.1	19.9
11	Kepulauan Riau	2,800	11.1	1,249	48.5	12.9	607.9	16.1
12	Jambi	8,889	21.9	3,057	44.4	39.3	1,034.9	19.0
13	South Sumatra	19,010	19.6	6,993	44.8	23.9	934.2	18.0
14	Bangka Belitung	1,395	3.6	553	56.1	4.7	1,018.0	18.4
15	Bengkulu	5,863	26.5	3,297	57.9	31.8	1,624.3	11.8
16	Lampung	20,422	15.4	3,597	24.7	44.5	1,005.9	24.6
17	West Kalimantan	8,771	13.2	2,628	46.2	39.3	972.2	20.0
18	Central Kalimantan	4,871	12.0	1,772	45.8	37.4	859.0	14.5
19	South Kalimantan	10,331	19.6	3,783	47.5	43.6	1,174.6	18.3
20	East Kalimantan	10,736	23.6	4,030	45.7	23.8	1,032.3	20.0
21	North Sulawesi	7,325	29.3	4,218	43.4	48.6	975.9	12.5
22	Gorontalo	3,711	38.7	974	45.8	46.5	2,194.4	31.5
23	Sulawesi Tengah	7,640	25.3	2,411	44.2	41.0	1,520.6	18.9
24	South Sulawesi	35,542	44.1	11,934	41.8	38.1	1,036.5	21.6
25	West Sulawesi	3,164	6.9	571	59.5	20.7	636.0	21.2
26	South East Sulawesi	7,400	27.0	2,105	41.1	43.9	953.2	21.7
27	Maluku	6,836	42.3	2,252	47.9	44.2	1,342.8	18.5
28	North Maluku	4,479	29.1	1,305	45.1	28.0	1,074.3	15.6
29	Bali	10,160	26.9	4,050	46.9	47.9	971.6	15.4
30	West Nusa Tenggara	23,076	31.0	3,861	53.4	33.3	1,333.7	23.8
31	East Nusa Tenggara	8,033	20.6	2,657	61.9	27.1	1,196.5	17.6
32	Papua	7,577	19.2	2,024	54.9	19.9	814.8	19.7
33	West Papua	3,494	34.5	1,097	52.4	25.6	997.2	16.4
	Indonesia	**946,367**	**27.1**	**238,637**	**36.7**	**30.7**	**1,413.9**	**22.5**

Note:
1) Lecturer Background on the basis of 2009/10 data

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