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Assessment of Policies to Improve Teacher Quality and Reduce Teacher Absenteeism

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ABSTRACT

Assessment of Policies to Improve Teacher Quality and Reduce Teacher Absenteeism

Asep Suryahadi and Prio Sambodho*

To avoid the middle income trap, Indonesia needs to start shifting its economy to higher-value products, which requires a workforce that has an increasingly high level of knowledge, skills, and competencies. This implies that Indonesia needs to put more serious effort into the improvement of the quality of its education system. Currently only 37% of teachers have the appropriate teaching qualification as defined by the 2005 Teacher Law and approximately 15% of all teachers are absent from their class each school day across Indonesia. To set a higher standard for teachers and to upgrade their skills, the government has implemented a massive teacher certification program beginning in 2006. This teacher certification is attached to a professional allowance that effectively doubles certified teachers' salaries. This has provided an incentive for teachers to upgrade their qualifications and increase their teaching loads to meet the certification requirements. Furthermore, the program has attracted more university graduates to enter the teaching profession and produced a jump in demand for teacher education in Indonesian universities. On the other hand, there is yet to be any clear evidence that the program has had a significant impact on improving students' overall educational performance and reducing rates of teacher absenteeism. Similarly, other efforts to reduce teacher absenteeism, such as the provision of a special allowance for teachers working in remote areas, have yet to show a significant impact on reducing teacher absenteeism.

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I. INTRODUCTION

Since the early 1970s, Indonesia has been successful in expanding its education sector, which was previously only enjoyed by the privileged few, to better serve the wider population. This is apparent in, among other indicators, the significant improvement in enrollment rates as shown in Figure 1. The gross enrollment rate for primary education had already reached universal coverage by 1980, which is a significant improvement from 80% in 1970 to stand at 118% in 2010. Meanwhile, the gross enrollment rate for secondary education has increased from 17% in 1970 to 77% in 2010, and for tertiary education it has increased from 2% to 23% during the same period.

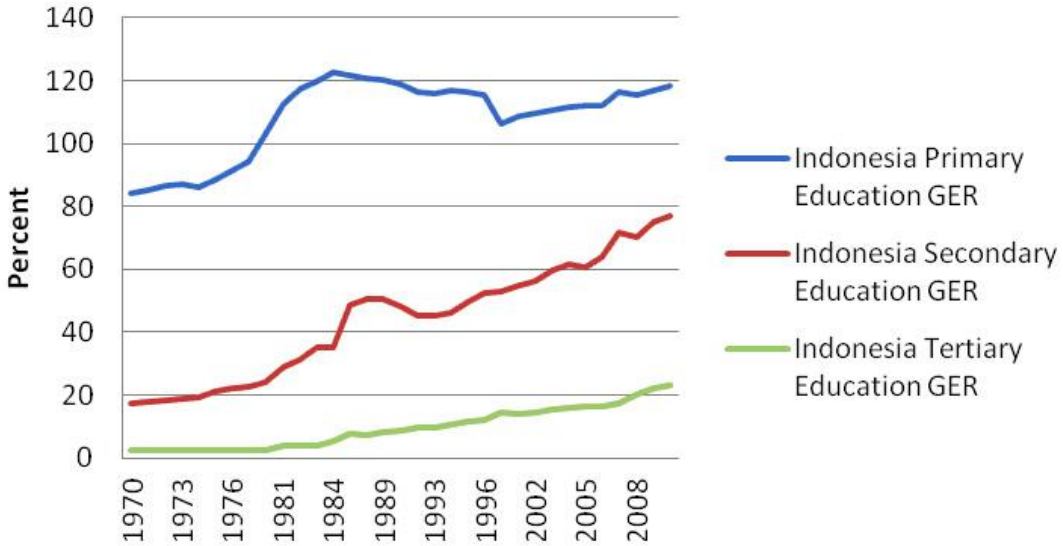

Figure 1. Indonesia's gross enrollment ratio (GER), 1970–2010

Source: World Bank country data (http://data.worldbank.org/country/indonesia).

This quantitative education expansion has contributed significantly to the development of Indonesia. The increasingly educated workforce has made it possible for the country to shift the base of its economy from agriculture to industry and services. Figure 2 shows that in 1971 the Indonesian gross domestic product (GDP) consisted of 45% agricultural products, 20% industrial products, and 35% services output. By 2010, the contribution of agriculture to GDP had fallen sharply to only 15%, while the contributions from the industrial and service sectors have expanded to 36 and 49% respectively. This economic shift from lower to higher productivity sectors has resulted in sustained high economic growth rates, averaging 6.5% annually for the last four decades, interrupted only in 1998–99 during the peak of the Asian financial crisis. Ultimately, this high economic growth has improved the overall welfare of the population and reduced the incidence of poverty in its various dimensions.

With a per capita income of around US$3,500 in 2011 and having achieved the status of a middle-income country, Indonesia now faces new and more complex challenges in its efforts to develop its economy and improve the welfare of its population further. In particular, the greatest challenge is to avoid the so called "middle-income trap" which is a situation where a country gets stuck in the middle-income range (US$1,000–12,000) and fails to increase its per capita income any further in order to achieve the status of a high-income country.

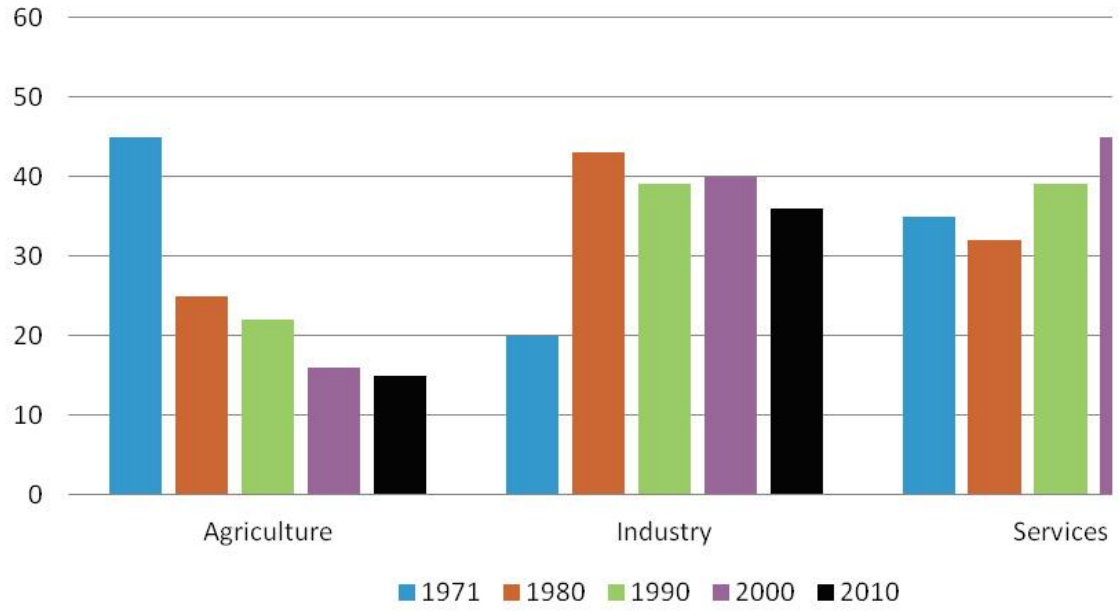

Figure 2. Indonesia's sectoral GDP share, 1970–2010 (%)
Source: Suryahadi, Hadiwidjaja, and Sumarto (2012).

Based on a country's GDP per capita and years in a particular GDP group, Felipe (2012) calculated that currently there are 35 countries caught up in the middle-income trap. He then splits this group of 35 countries further into lower middle-income trap (30 countries) and upper middle-income trap (5 countries). As shown in Table 1, he puts Indonesia as not yet in the lower middle-income trap group, but projects that Indonesia will most likely join the lower middle-income trap in the three years following from 2010. To avoid falling into this middle-income trap, Indonesia's economy needs to grow by almost 15% annually for the next three years after 2010, which suggests that practically-speaking there is no escape from the middle-income trap.[1]

II. QUANTITY AND QUALITY OF EDUCATION IN INDONESIA

In order to shift from a middle income to a high income range, a country needs to shift its economic base towards the production of higher-value products. One of the key ingredients required to achieve this is investment in the quality of the education sector so that it can produce a better qualified workforce with higher levels of knowledge, skills, and competencies to support the growth of innovation-based industries. This kind of education investment has been credited as one of the main driving forces that has pushed South Korea, Finland, and Ireland through the middle income barrier and into the advanced economy group (Foxley and Sossdorf, 2011).

[1]Felipe (2012) calculated the threshold of being trapped in lower-middle income as the median of years needed by nine countries that became lower middle-income after 1950 to graduate to upper middle-income, which is 28 years. Since by 2010 Indonesia has been a lower middle income country for 25 years, it has only three more years before being classified as in the lower middle-income trap. To avoid this, Indonesia needs to achieve a GDP per capita of $7,250 in 1990 PPP and join the upper middle-income group, which requires a growth of 15 percent in each of the three remaining years.

Table 1. The Middle-Income Trap

Country	Region	2010 GDP per Capita (1990 PPP$)	Years in LM until 2010	Years before Falling into the LM trap[a]	Average Growth (%) 2000-2010	Average GDP per Capita Growth (%) to Reach $7,250[b]
Cambodia	Asia	2,529	6	22	8.2	4.9
India	Asia	3,407	9	19	6.1	4.1
Indonesia	Asia	4,790	25	3	3.9	14.8
Myanmar	Asia	3,301	7	21	9.0	3.8
Pakistan	Asia	2,344	6	22	2.6	5.3
Viet Nam	Asia	3,262	9	19	6.1	4.3
Honduras	Latin America	2,247	11	17	1.6	7.1
Mozambique	Sub-Saharan Africa	2,362	4	24	5.8	4.8

Source: Felipe, 2012.

Note: GDP = gross domestic product, LM = lower middle-income, PPP = purchasing power parity.

[a]Calculated as (28 years–number of years in LM until 2010).

[b]Average growth needed to reach $7,250 from the income level in 2010 over the years before falling into the lower middle-income trap.

This implies that Indonesia needs to urgently place more serious effort into improving the quality of its education sector in order to be able to graduate and escape from the middle-income trap as quickly as possible. As del Granado et al. (2007) pointed out, the biggest challenge facing Indonesia's education sector has shifted from increasing spending to increasing the quality of its education service. Indeed quantitatively, in terms of education enrollments, Indonesia's current gross enrollment ratios for primary and secondary education are already on par with most of the developing countries in the East Asia and Pacific regions (Figure 3).

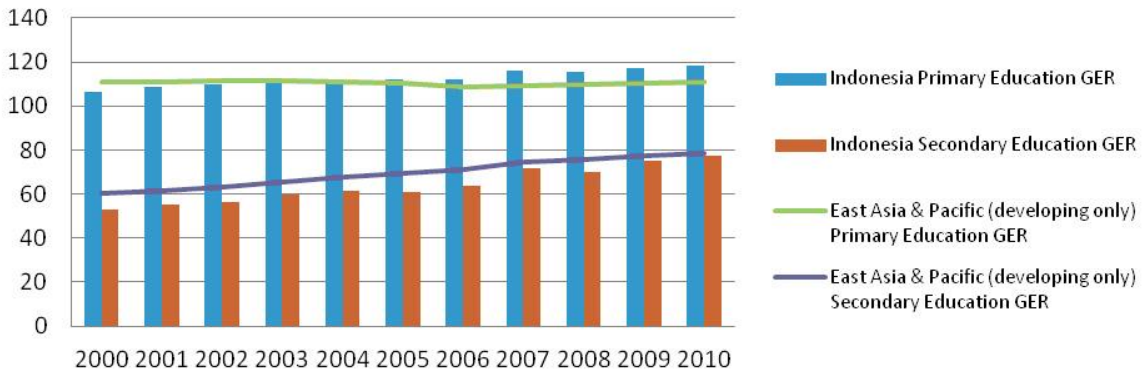

Figure 3. Indonesia's and East Asia & Pacific's primary and secondary gross enrollment ratio (GER), 2000–2010 (%)

Source: World Bank country data (http://data.worldbank.org/country/indonesia).

Qualitatively, however, Indonesia still has a long way to go to improve the quality of its education sector. There is no doubt that Indonesia, in overall terms, still has a low quality education sector. Various measures of the quality of the output of the education sector indicate that they are still lagging behind (Suryadarma, 2011). The results of the Trends in International Mathematics and Science Study (TIMMS) show that the mathematics and

science skills of more than half of all Indonesian students were below the defined basic proficiency levels (Figure 4). Indonesian student outcomes on the test were lower than those of students from other countries, even after adjusting for family socioeconomic status. This suggests that deficiencies in the school system, rather than the household conditions of individuals, is the principal contributor to lower educational performance (World Bank, 2010).

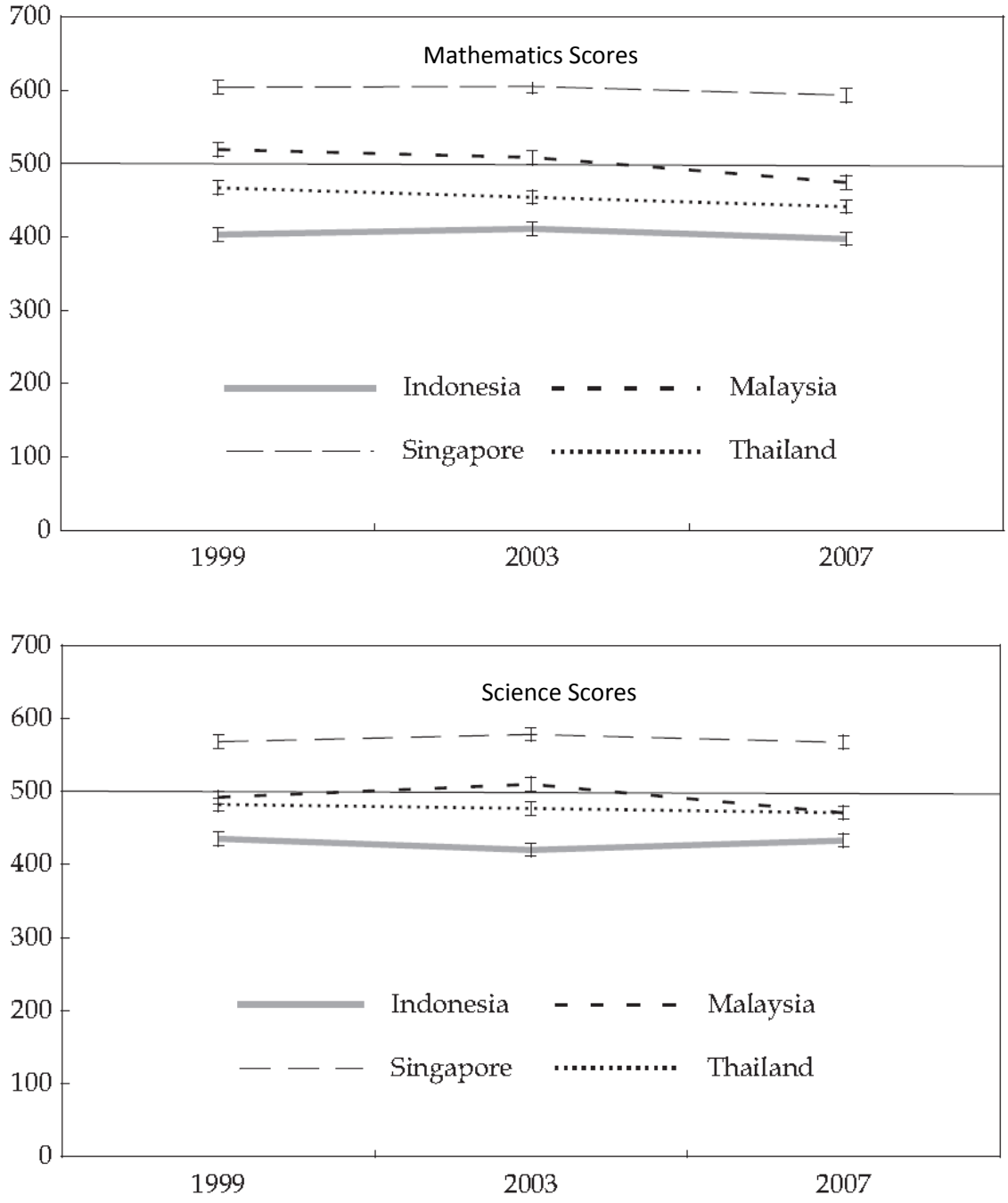

Figure 4. Indonesian Performance in Mathematics and Science in TIMMS, 1999–2007
Source: Suryadarma and Sumarto, 2011.

A high-quality education system encourages creativity and supports breakthroughs in science and technology. This requires investment in education infrastructure and other inputs, in particular teachers, curriculums, and learning materials. This paper focuses on teachers, who

play a vital role in determining the quality of education (OECD, 2004). In particular, this paper assesses the policies that are in place to improve teachers' classroom qualifications and competencies, as well as the efforts being made to ensure that teachers are not absent from teaching their classes.

III. IMPROVING TEACHER QUALITY

The quality of education is profoundly determined by the quality of the teaching. In turn, the teachers themselves are the single most important component of teaching quality as it is the teachers' individual knowledge and skill that strongly influence student learning and achievement (Barber and Mourshed, 2007; Nye, Konstantopoulos, and Hedges 2004) Unfortunately, teacher quality is still a serious matter of concern in Indonesia. According to data from the 2006 teacher census presented in Figure 5, only 37% of all teachers have the necessary teaching qualification defined by the Law No. 14/2005 on Teacher and Lecturers (hereafter the Teacher Law) that sets a minimum four year degree, while 26% of teachers only possess a high school diploma or less.

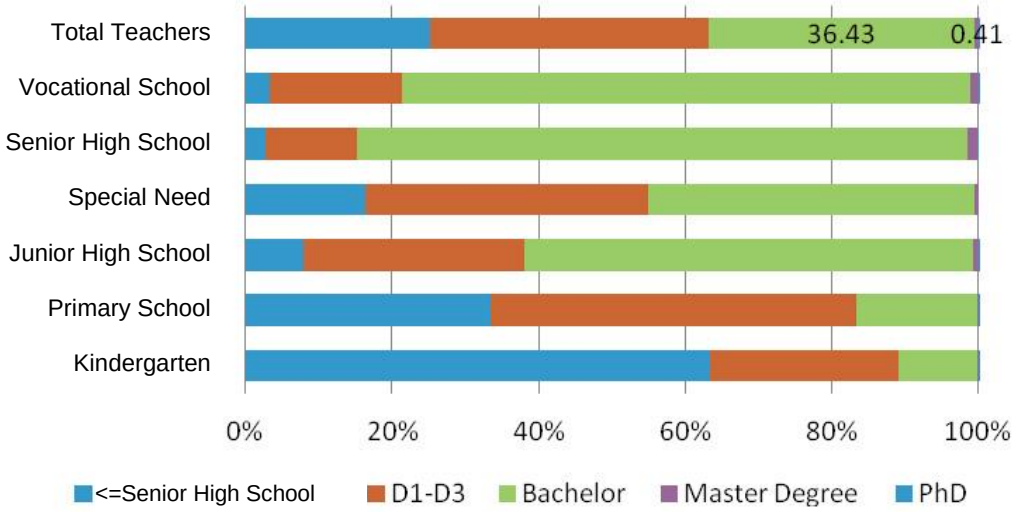

Figure 5. Indonesian teachers' education levels, 2006
Source: Adapted from Jalal et al., 2009: 7.

This low quality of teaching has been strongly associated with the issues of oversupply of teachers, low wage levels (see Table 2), and a weak national teacher recruitment system (Jalal et al., 2009). Del Granado et al. (2007) pointed out that central government policy of decentralization has provided a perverse incentive for districts to hire as many teachers as they wish as it bears no financial consequence on them as teachers' salaries are paid by the central government through regional block grants (DAU). Moreover, the national teacher recruitment system that entitles teachers to become civil servants (and have access to retirement pensions among other entitlements) has also exacerbated this oversupply problem (Jalal et al., 2009).

Table 2. Comparison of Teacher Salaries across Selected Southeast Asian Countries by Level of Education (PPP $)

Country	Year	Primary School		Junior High School		Senior High School	
		Starting Salary	Top Salary	Starting Salary	Top Salary	Starting Salary	Top Salary
Indonesia	2004/05	2733	3941	2913	4281	3373	4756
Malaysia	2004	8389	18798	11680	31028	11680	31028
Philippines	2004/05	9060	10770	9060	10770	9060	10770
Thailand	2004/05	5902	27662	5902	27662	5902	27662

Source: UNESCO and OECD, 2005.

In addition to these problems, low teaching quality has also been attributed to weak pre-service education and teacher performance assessment systems. USAID (2009) found that the material and content of pre-service education for teachers is still lagging behind current best practice. As there is no effective performance assessment system, there is great variation in the standards of training among teaching education providers. Meanwhile, for in-service teachers, there is no clear career progression and professional development connected to a performance assessment system that links with financial rewards. Conversely, there is no effective measure to manage underperforming teachers. Clearly the current civil service-based appraisal system is inadequate to assess the performance of teachers.

3.1 Teacher Certification

The failure of past initiatives to strengthen teaching quality has been attributed to the piecemeal fashion in which it has been implemented. In response to this, in 2005 the Government of Indonesia (GoI) enacted the Teacher Law, which is regarded as the most comprehensive strategy yet adopted to improve teaching quality in Indonesia (Jalal et al., 2009: 24). This law lays the foundations for a massive teacher certification program by the central government, which attempts to set standards for teachers, upgrade their current skills, and ultimately improve the quality of education.

The certification comes with a professional allowance that effectively doubles teachers' base salaries so as to improve the attractiveness of the teaching profession and to provide a strong incentive for teachers to participate in the certification process. In addition, the program also provides certified teachers who are assigned to remote or disadvantaged areas with an additional allowance, which effectively triples their salaries. The doubling of teacher salaries is indeed a strong incentive to attract new cohorts of graduates to become better performing teachers. Table 3 shows a comparison of average salaries in the private sector and the civil service in 2006, the year prior to the start of the certification program. The table shows that the maximum pay premium of the private sector over civil service is just 21% for the 26–30 year age group. This relatively low pay premium, which is consistent with international practice, confirms the findings of Filmer and Lindauer (2001).

The cost of certifying, training, and providing allowance payments to teachers implies that the central government is making considerable new investments in education. The process to certify all existing teachers is expected to be completed by 2015. Jalal et al. (2009) have estimated the costs associated with teacher certification and they are reproduced here in Table 4. The table shows that the total cost of certification is around Rp250 trillion in constant 2006

prices, with the cost of the teacher allowance making up more than 90% of the total budget.[2] With a price tag as high as this, GoI hopes that the investment in teacher certification will ultimately increase the quality of teachers, which will then increase the quality of learning, and finally improve the quality of education as a whole in a lasting and beneficial way.

Tabel 3. Average Remuneration in Private Sector and Civil Service for Tertiary Education Graduates by Age Groups (Rp/month), 2006

Age Group	Private Sector	Civil Servant	Ratio
15-20 year	611,712	774,623	0.79
21-25 year	936,180	888,937	1.05
26-30 year	1,241,806	1,027,373	1.21
31-35 year	1,476,047	1,272,718	1.16
36-40 year	1,705,542	1,513,062	1.13
41-45 year	1,788,819	1,751,862	1.02
46-50 year	1,904,106	2,051,638	0.93
51-55 year	2,015,359	2,057,878	0.98
55-65 year	2,132,409	3,180,849	0.67
65+ year	2,132,542	-	-
Total	1,543,441	1,642,455	0.94

Source: Sakernas.

Table 4. The Forecast of Costs Associated with Teacher Certification (Rp million, 2006 prices)

Year	Professional Allowance	Assessment & Certification	In-Service Upgrading	Total Real Cost
2007	158,742	360,900	1,323,300	1,842,942
2008	3,608,100	400,000	1,466,667	5,474,767
2009	8,649,720	693,000	2,541,000	11,883,720
2010	16,134,120	793,008	2,907,696	19,834,824
2011	24,698,606	793,004	2,907,681	28,399,291
2012	33,263,050	793,004	2,907,681	36,963,735
2013	41,827,493	516,110	1,892,403	44,236,006
2014	47,401,481	223,004	817,681	48,442,166
2015	49,809,924	223,004	817,681	50,850,609
Cumulative	225,551,236	4,795,034	17,581,790	247,928,060
Percentage	91.0	1.9	7.1	100.0

Source: Jalal et al., 2009.

The Teacher Law mandates that all teachers and lecturers develop four groups of competencies: pedagogical (teaching ability), personal (character and example), professional (training and

[2]To give a perspective of the magnitude of the cost of certification, let's compare it to the cost of the unconditional cash transfer program, the BLT, which was run for a year from October 2005 to September 2006. The BLT provided cash assistance of Rp100,000 per month to more than 19 million poor and near poor households with a total cost of around Rp20 trillion. This means that the cost of teacher certification can alternatively be used to sustain the BLT program for 12.5 years.

education), and social (community participation). These competences are required to be developed through a minimum of four years of teacher education and successful classroom performance. To be eligible for certification, a teacher must meet the minimum requirements, which include; having a minimum four-year bachelor or diploma degree (S1 or D4), having accumulated credits from teacher professional training, and be teaching a minimum of 24 hours per week. The certification process thus provides a strong incentive for many teachers to upgrade their academic qualifications in order to be eligible for certification.

The certification process was due to begin by 2006, but was postponed due to a redesign of the testing instrument. Hence, the first wave of 200,000 teachers undertook the certification test in 2007. It is expected that by 2015 only certified teachers will be able to teach in Indonesian schools. The certification process operates through two institutional channels. Firstly, the Ministry of National Education, which handles the certification of teachers from state schools, other than religious studies teachers. Secondly, the Ministry of Religious Affairs, which handles the certification of teachers from Islamic schools (madrasa) and religious studies teachers in state schools. Due to the fact that this process has not been accompanied by the provision of clear and complete information, the division of certification through these two channels has created problems, including situations where teachers have been asked to undertake certification through both organizations or by the wrong organization (Hastuti et al., 2008).

The certification mechanism has changed several times over the years. Figure 6 shows the latest mechanism of teacher certification, which has been implemented since 2012. There are three different patterns through which a teacher can follow the certification process depending on his or her qualification: (i) direct certification (PSPL—*Pemberian Sertifikat Pendidik secara Langsung*), (ii) portfolio assessment (PF—*Penilaian Portofolio*), and (iii) teacher retraining (PLPG—*Pendidikan dan Latihan Profesi Guru*).

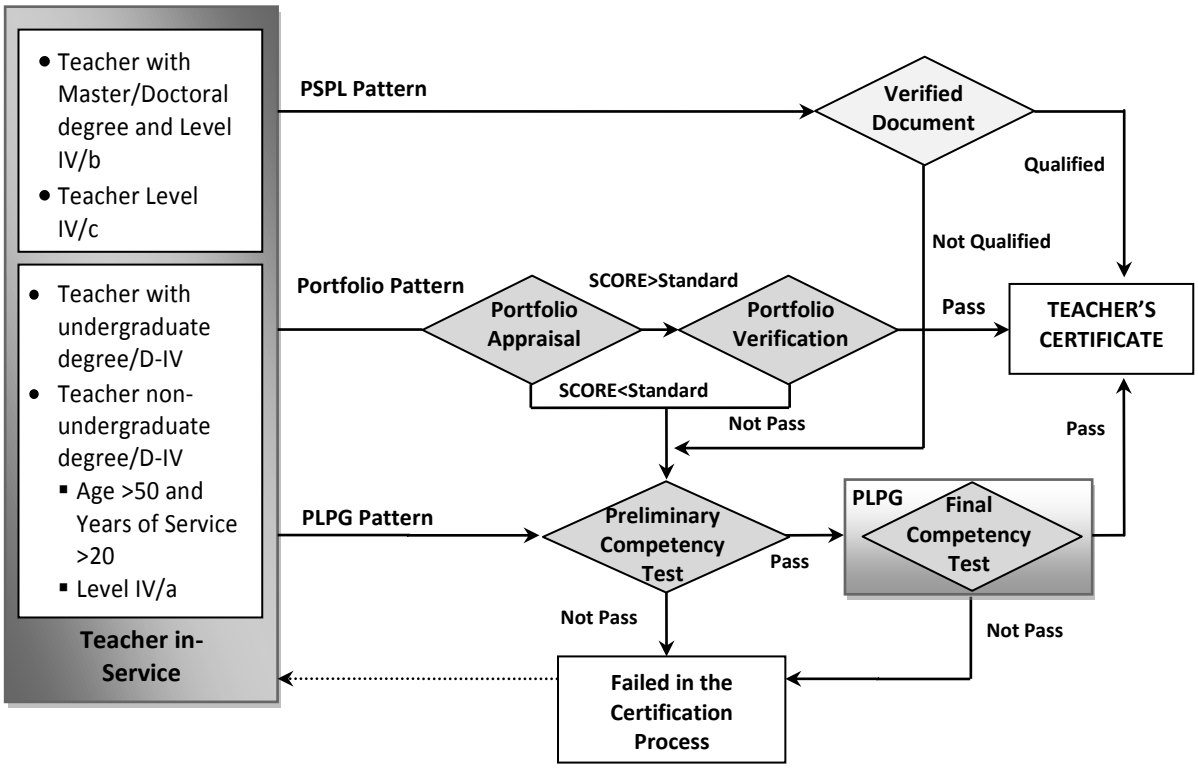

Figure 6. Teacher certification mechanism in 2012
Source: Kementerian Pendidikan dan Kebudayaan (Ministry of Education and Culture), 2012.

Teachers who have a Masters (S2) or Doctorate (S3) degree and have a IVB civil service rank or, all teachers who have a IVC civil service rank, are eligible to follow the direct certification channel.[3] Teachers who are certified through this channel are only required to follow a document verification process. Those who are considered qualified according to the Teacher Law will be directly granted a teacher certificate, while those who are not considered qualified will have to go through the competency tests contained in the teacher retraining channel.

Teachers who are eligible to follow the certification process through the portfolio assessment channel are teachers that hold a supervisory position. Here the certification process is carried out through the appraisal and verification of various documents which reflect a teacher's competency. The assessment components of these documents cover: (i) academic qualifications, (ii) education courses and training, (iii) teaching experience, (iv) teaching planning and implementation, (v) appraisals by superior and supervisor, (vi) academic achievements, (vii) professional development works, (viii) participation in scientific forums, (ix) experience in education and social organizations, and (x) relevant recognition and awards in education. Teachers who do not pass the portfolio assessment will also have to go through the competency tests contained in the teacher retraining channel.

Originally during the initial years of the teacher certification program, most teachers were assessed through the portfolio channel. Only those teachers whose portfolio did not meet the minimum standard would receive a week of remedial training. However, this mechanism was viewed as problematic as it did not assess the teacher's skills and competency at all (Hastuti et al., 2008). Moreover, there were concerns that quality control mechanism in the teacher certification process was being undermined by the existing widespread practice of using illegal or forged documentation.

Now most teachers have to follow the certification process through the teacher retraining channel. As the first step in this channel, prospective teachers have to pass a preliminary competency test. Teachers who pass this preliminary test will participate in 90 hours of retraining delivered in the form of lectures and workshops over 10 days. At the end of the retraining, they will undergo a final test. Those who pass the test will be considered as having sufficient competency to become teachers and will be deemed to be certified teachers.[4] Those who do not pass either the preliminary or final test, on the other hand, will be considered as not having sufficient competency to become certified teachers.

Since the teacher certification program is relatively new, studies assessing its effectiveness in improving teaching quality are still scant. Early evidence indicates that it has not yet had a significant impact on students' performance. Fahmi, Maulana, and Yusuf (2011) analyzed the impact of the teacher certification program on students' achievement by carrying out a survey of both certified and non-certified elementary school teachers and comparing their findings to the national-standard exam score of their students. They found no evidence to support the notion that the teacher certification has had an impact on student's performance, as measured

[3]The civil service ranks in Indonesia are IA-ID, IIA-IID, IIIA-IIID, IVA-IVE. A fresh university graduate who becomes a civil servant will be appointed at the IIIA rank. The highest rank IVE is equivalent to the full professor level at the university.

[4]The competency test is a two-hour multiple choice objective test, which consists of 30 percent pedagogical competency and 70 percent professional competency in accordance with the teaching subject. The level of difficulty of a test package is a mix of 25 percent easy problems, 50 percent medium difficulty problems, and 25 percent difficult problems. Each test package has to pass a validation by experts and a validation by a sample of representative teachers (Kementerian Pendidikan dan Kebudayaan, 2012).

by national standard students exam score. An early finding of a study carried out by Ree et al. (2012) has also found similar results. Based on an experiment in 360 public primary and junior high schools, they found no evidence that teacher certification improved learning outcomes. However, they found that the doubling of teacher salaries does decrease the likelihood of teachers holding additional jobs and lower the likelihood of teachers having financial difficulties.

However, the potential impact of the program on teachers who have not yet undertaken certification is quite considerable. In accordance with the Teacher Law, a certified teacher is entitled to a professional allowance equivalent to their base salaries. The higher salaries on offer have provided an incentive for teachers who do not meet the requirements for certification to upgrade their qualification and/or teaching load to meet the requirements, although not necessarily to improve their teaching performance.

While the evidence of the effectiveness of certification in improving educational quality has yet to be seen, there is an indication that this program has increased the competiveness of the education sector in attracting a better quality workforce. Studies by USAID (2009) and World Bank (2010) have found that there is evidence that the new incentive structure for teachers has attracted more university graduates to enter the teaching profession as well as a surge in demand for places in teacher education courses in universities.

Indeed, in the long run one of the largest benefits of the teacher certification program may be in its ability to attract a new pool of well-educated, high-quality teachers into the teaching profession. Unfortunately, this has not been responded to sufficiently by teacher education institutions in preparing well qualified graduate teachers. Teacher education institutions, which have the most comprehensive engagement in both pre-service and in-service teacher education and professional development, are still inadequately prepared to play a leading role in improving teacher quality (USAID, 2009).

Another challenge was the fact that the recent test results of a preliminary competency test (UKA) and teacher competency test (UKG) have shown a low average score. The preliminary competency test (UKA) 2012 was held in February 2012 for non-certified teachers to gain certification. A total of 285,884 teachers sat the test and the results produced an average score of 44 out of a maximum of 100. The UKG, which was held in August 2012 to assess the competency of the already certified teachers, also resulted in an average score of 44 out of a maximum of 100. Moreover, as reported in the media, the low score of UKG was also compounded by the fact that many teachers had difficulties using the online system used to access the test.

The UKG and UKA results also show that the lowest score on the test was in the subject of mathematics, physics, and science in general. This can be interpreted as a worrying sign, as it is these subjects that are regarded as the most important subjects for a high quality workforce that supports a modern economy. The fact that many teachers have difficulties in using online technology also shows that there is an urgent need for improvement in information technology literacy if Indonesia's workforce wants to keep up with global technology-based economies.

3.2 Remote Area Allowance

In addition to the professional allowance equal to the amount of the base pay for all certified teachers (doubled pay), the Teacher Law also provides for an additional allowance equal to the amount of the base pay for certified teachers who teach in "special areas" (tripled pay). These special areas are defined as those areas that are considered as remote, impoverished, or conflict-affected. The allowance is aimed at attracting and retaining teachers, especially better-qualified teachers, to areas that have a history of being hard to staff.

Due to the legal fact that the allowance will go only to certified teachers, teachers in remote areas are most likely to be certified last as they tend to have lower qualifications for certification. To provide a more immediate incentive, the government has decided to introduce a new subsidy of Rp1.3 million per month to any uncertified teacher who has been teaching in a remote area for two years. This subsidy is currently only given to primary school teachers.

The selection of beneficiaries is as follows. The central government sets the quotas for the province, and the provincial government sets the quotas for the districts. Based on guidelines from the central government, the district government then identifies the schools to receive the subsidy. The guidelines state that schools must be chosen based on a scoring system that includes factors such as distance from the district office, whether there is electricity in the village, and other factors. All teachers in the identified schools should receive the subsidy. However, the teachers must have worked at the school for at least two years and have a minimum workload of 24 hours per week.

Toyamah et al. (2009) found that there was an inconsistent implementation of the remote area allowance program. The size of the remote area allowance funds given to teachers varied between regions and there were even cases of regions who knew nothing about the remote area allowance funds. The process of socialization of the program was also very weak, meaning that only teachers receiving the allowance knew about the program. As well as this, not all teachers in receipt of the remote area allowance knew the exact amount of the allowance that they were entitiled to receive and many, therefore, did not receive the full amount of allowance funds.

The procedure for determining the recipients of the remote area allowance was also rated by some parties as being unclear thus causing incorrect targeting and under coverage of the program, which led to cases of social jealousy. In practice, the majority of recipients did not receive the full amount of the allowance due to a common policy amongst schools to distribute the allowance to all teachers in the school to reduce the incidence of social jealousy among the teaching staff. This has reduced the effectiveness of the allowance in achieving its objective (Toyamah et al., 2009).

The requirement of a two-year tenure before being eligible to receive any remote area allowance means that the subsidy will not act as an incentive for teachers to move to schools located in remote areas. Instead, the incentive is more for teachers who are already in remote areas to remain there. However, as teachers in remote areas are in general holding lower qualifications and also poorer performance compared to those in urban areas, this means that the subsidy may not have a significant impact on improving the quality of education in remote areas.

3.3 Professional Working Group

Professional working groups are forums intended for information sharing and professional development between teachers within a certain area (usually a cluster of schools). Currently there are two professional working groups for teachers, the KKG (Kelompok Kerja Guru, Teacher Working Group) for primary level schools and the MGMP (Musyawarah Guru Mata Pelajaran, Subject Teachers Consultative Forum) for secondary level schools. The government, through the LPMPs (Lembaga Penjamin Mutu Pendidikan, Education Quality Assurance Institute), provides block grants for KKGs and MGMPs. These grants are mainly used for curriculum development, learning material development, preparation of learning aids, classroom action research, scientific writing, and professional development programs.

Potentially the KKG and MGMP can play a significant and strategic role in improving the professional competence of teachers. For example, Tedjawati (2010) found that KKG activities have supported teachers in improving their teaching quality and professionalism, so that the teachers themselves can improve their performance by: expanding their knowledge on teaching subject materials, developing lessons plans, implementing class action research, improving teaching delivery techniques, increasing the effectiveness of their classroom management, and providing more detailed feedback to students. On the other hand, some problems that have reduced the effectiveness of KKG activities are a lack of university-based resource people, programmed activities being implemented outside normal working hours, a lack of understanding by teachers of the importance of some KKG activities, and a lack of supporting materials for use during these activities.

According to USAID (2009), KKG and MGMP forums are yet to be effective in facilitating the improvement of the quality of teachers in terms of providing competence and skills in subject matter and pedagogy. Most of the forums are not running well due to management issues and a lack of attention by local authorities, particularly school principals. The program coverage is too limited and there is no dissemination of examples of best practice or programs. The lack of resource persons is one of the gaps in improving the quality of teachers through the KKGs and MGMPs. University-based teacher educators are infrequently engaged as resource persons. Resistance to innovation is another common constraint, especially among senior teachers. Although these forums have the potential to be a major force for teaching reform, in reality they appear to be limited more to the sharing of lesson plans between teachers for various subjects and topics.

IV. REDUCING TEACHER ABSENTEEISM

In terms of service delivery, quality starts with teacher attendance. Hence, for quality teaching-learning to take place, a teacher must be present at the front of the class and be prepared to deliver the lesson content. Unfortunately, in developing countries teacher absenteeism is prevalent and creates a major impediment to students' learning and development as well as the achievement of national development objectives. Chaudhury et al. (2006) argues that excessive teacher absence is consistent with the idea that teachers are extremely unlikely to be dismissed from their schools for their prolonged or frequent absence, but that their decision about whether to go to work are influenced by the working conditions they experience at their schools.

4.1 Magnitude of the Problem and Its Impact

The World Development Report 2004 (World Bank, 2004) surveyed teacher absence in six developing countries, including Indonesia, and recorded that the average rate of teacher absenteeism across the six countries in 2003 was around 19%. This means that in any single school day, one out of every five teachers who have been given a teaching assignment for that day did not show up to teach their assigned class.

In Indonesia, the latest nationally representative data available is from 2008, which indicates that approximately 14% of teachers were absent from their teaching assignment in any school day (Table 5). There has been a decline from the previous survey in 2003, which found a teacher absenteeism rate of approximately 20%. This overall reduction in teacher absenteeism was due to the combined influence of improved management by districts, better incentives for teachers, and more regular supervision of schools (Toyamah et al., 2009).

Table 5. Teacher Absenteeism Rates in Indonesia (%)

	2003[a]	2008[a]	Papua 2011[b]
Total sample	19.6	14.1	33.5
School remoteness:			
Non-remote schools	22.7	12.2	20.0
Remote schools	-	23.3	43.4
Employment status:			
Civil servant teachers	18.8	12.5	32
Contract teachers	29.6	19.4	47
Role in school:			
Principal	25.1	20.2	51
Classroom teachers	19.3	14.0	-

[a]Toyamah et al., 2009.
[b]UNCEN et al.,2012.

Approximately 45% of the absent teachers were absent because they were sick and had requested official leave, 28% were on official duty outside of the school, 12% were conducting tasks unrelated to teaching, had arrived late or had left early, and it was found that as many as 14% of the absent teachers were absent without any clear reason (Toyamah et al., 2009).

Teacher absenteeism is a waste of the resources required to educate children and adversely affects the quality of education. As stated by Rogers and Vegas (2009), if students end up doing "busy work" or playing in the schoolyard, little real learning is likely to take place. Furthermore, if poor quality teaching discourages parents from making the sacrifices necessary to send their children to school, teacher absence can also affect access to education and school completion rates. More importantly, high rates of teacher absence often signal deeper problems of accountability and governance that are themselves barriers to educational progress. More generally, Chaudhury et al. (2006) argued that teacher absenteeism reflects weak institutions for supplying public goods, which by themselves are a significant barrier to economic development in many countries.

Suryadarma et al. (2006) provides empirical evidence for Indonesia showing that teacher absence slows student learning. They find that an additional 10 percentage points in the average absence rate of teachers at a school is associated with a 0.09 standard deviation

decrease in math scores of fourth graders, but has no effect on verbal test scores. This finding is consistent with findings from other developing countries, such as Das et al. (2007) for Zambia and Duflo, Hanna, and Ryan (2007) for India. Moreover, absence is often more prevalent in schools serving disadvantaged children, such as schools in poor rural and remote areas. Hence, teacher absenteeism compounds the disadvantages already faced by students in these poor communities.

4.2 The Case of Papua

Papua has made significant progress in increasing access to education for its population. However, there are a number of problems and issues with basic education in Papua, with teacher absenteeism being one of the most chronic problems. In relation to this issue, a study by USAID (2009) found that: (i) about 70% of indigenous children live in remote rural communities with few, if any, teachers; (ii) teaching conditions in rural and isolated areas are poor with no housing, shortages of food supplies, poor sanitation, and a lack of access to clean water; (iii) there are high rates of teacher absence in rural schools; (iv) little administrative support (teachers, equipment, materials, books) is provided for interior, coastal, remote and isolated areas; and (v) class sizes for remote and isolated areas are often very small and students must travel long distances to school and/or work to support their families.

Furthermore, the problem of teacher absenteeism in Papua has two distinct characteristics as compared to the other regions within Indonesia. Firstly, the incidence of teacher absenteeism is much higher than the national average. A recent study found that the teacher absenteeism rate in Papua in 2011 was at least 33.5% (UNCEN et al., 2012). This means that one in three teachers who are supposed to be teaching during a school day did not do his or her job. Secondly, the duration of a teacher's absence in Papua is much longer than a typical teacher's absence in other regions. While a teacher in other regions of Indonesia may be absent from teaching for a few days, a teacher in Papua can be absent from their school for as long as several months. The average length of absence among absent teachers is 70 days and around 15% of absent teachers have been absent for more than a year (UNCEN et al., 2012).

Like in other parts of the country, the incidence of teacher absenteeism is much higher in regions with difficult access. In highland districts, for example, almost one in two teachers are absent from his or her teaching assignment at any point in time. Similar to other regions, there are several factors that are found to be associated with higher absentee rates in Papua. Male teachers tend to be absent more than female teachers. Non-diploma teachers have much higher absentee rates than teachers who are university graduates. Permanent teachers tend to be absent more than non-permanent teachers. Indigenous Papuan teachers tend to be absent from school more than non-Papuan teachers. Finally, teachers in schools that are monitored more frequently have lower absentee levels (UNCEN et al., 2012).

4.3 Policies to Reduce Teacher Absenteeism

Clearly the remoteness of a region influences the levels of teacher absenteeism. In relatively developed regions, in urban areas, the teacher absentee level tends to be lower than that in rural areas. This is also true of the teacher absentee levels in districts and cities located in western Indonesia, where the absentee level is generally lower than that in eastern and central Indonesia.

In addition to being influenced by the remoteness of these areas, the teacher absentee level is also influenced by various other factors; both those that are related to individual teachers and those related to the condition of the school itself. However, the relationship between these factors and the teacher absentee level in 2003 was not always the same as was reported in 2008 (Toyamah et al., 2009). The factors which remain the same are: (i) teacher absentee levels for female teachers are lower than that for male teachers; (ii) the absentee levels for permanent/civil servant teachers tends to be lower than that for non-permanent teachers (*guru honor/kontrak*); and (iii) teachers in schools located in close proximity to the government education agency have lower absentee levels than schools located further away from the government education agency.

The problem of teacher absenteeism is often viewed as being influenced by teachers' welfare. Hence, government policies to reduce teacher absenteeism mostly focus on efforts to improve teachers' welfare. Since the problem of teacher absenteeism is worse in remote and difficult to access areas, the remote area allowance also aims to reduce teacher absenteeism in these areas. Various studies have shown the importance of effective supervision and monitoring in reducing teacher absenteeism. Hence, policies to improve school supervision and monitoring by both the government education agency and the school committee are also important in reducing rates of teacher absenteeism.

(Toyamah et al. 2009) found that the decrease in the teacher absentee level between 2003 and 2008 were significantly influenced by regional/city government policies, such as: a competition to become the favorite school in Surakarta; the government education agency's decision to place a supervisor within a multi-school complex in Bandung; and, an increase in the work performance subsidy in Kota Pekanbaru. The implementation of a regulation in Kabupaten Sukabumi which stated that teachers in remote areas were now required to live in the regions in which they worked was very effective in reducing teacher absentee levels in this area.

Other factors found by Toyamah et al. (2009) that have a tendency to reduce the teacher absentee level in schools are: (i) the presence of the school principal at the school; (ii) the availability of school's facilities (electricity and toilets); (iii) the availability of sufficient classrooms; (iv) a regular inspection by the school supervisor; and (v) regular school committee meetings.

Meanwhile, the remote area allowance program in general has yet to have an impact on the teacher attendance levels in schools located in remote areas. Exceptions to this are found when the national policy of remote area allowance is complimented with similar policies from the local government. A policy from the regional government that is conducive to allowing the program to be more effective in achieving its objectives. Toyamah et al. (2009) found that the inconsistent implementation of the remote area allowance program had contributed to the range of diverse and unclear impacts of the allowance distribution on the teacher absentee levels.

In Papua, it was found that teacher certification does not seem to affect the rates of teacher absenteeism. However, one variable that has emerged with a strong correlation to teacher absenteeism in Papua is the availability of government housing and the quality of this housing. Teacher participation in professional working groups (such as the KKG) is positively correlated to teacher attendance in their schools. Teachers who participate in professional organizations in their subdistricts are almost twice as likely to be teaching at their schools compared to teachers who do not (UNCEN et al., 2012).

Also in Papua, effective school-based management (SBM) has a positive impact on teacher attendance in schools.[5] In schools that have applied SBM effectively, the rate of teacher absenteeism is much lower than the regional average which stands at about 12%. However, for SBM to be effective, all of its transparency, school accountability to the community, community monitoring of schools, and community participation in school decisions—need to be implemented as a "full package" (UNCEN et al., 2012).

The Papua study has identified several other factors that tend to reduce teacher absenteeism. Firstly, school infrastructure appears to be helpful in promoting teacher attendance. In schools with high quality infrastructure, teacher absenteeism is only about 11%. Secondly, teacher absenteeism is lower in schools where communities take an active role in the management and monitoring of their schools. Thirdly, incentive programs for teachers have a strong positive correlation with teacher attendance in schools. A small number of schools have applied an effective mix of sanctions and incentives that, together with effective community participation, has led to very low rates of teacher absence from school. Fourthly, schools that have good leadership from their principal have been able to reduce teacher absenteeism and improve the quality of management in their schools. Schools with effective leadership and good managment have much lower rates of teacher absenteeism.

V. CONCLUSION

Education expansion has contributed significantly towards Indonesia's development and the achievement of middle-income country status. However, to avoid the middle-income trap, Indonesia needs to start shifting its economy to higher-value products, which requires a workforce that has higher levels of knowledge, skills, and competencies. Consequently, Indonesia needs to put more serious effort into improvement of the quality of its education. This requires investment in education infrastructure and other inputs, in particular teachers, curriculums, and learning materials. Specifically, in regards to teaching staff, currently only 37% of teachers have the necessary qualification as set out in the 2005 Teacher Law and around 15% of teachers are absent from their classes each school day.

To set standards for teachers, upgrade their skills, and ultimately improve the quality of education, the government has implemented a massive teacher certification program since 2006. The certification comes with a professional allowance that doubles teachers' base salaries. This has provided an incentive for teachers to upgrade their qualification and teaching load to meet the requirements of certification. Furthermore, there is also evidence that this program has attracted more university graduates to enter the teaching profession and produced a surge in demand for teacher education courses in Indonesian universities. On the other hand, there is yet to be conclusive evidence that the program has had any significant impact on improving students' overall performance and reducing rates of teacher absenteeism. Similarly, other efforts to reduce the rates of teacher absenteeism, such as the special allowance for teachers in remote areas, have yet to show any significant impact on reducing teacher absenteeism.

[5]SBM gives greater autonomy to schools and enhances direct involvement of the school community (the principal, teachers, students, staff, parents, and the community itself) in the decision-making to improve school quality.

Efforts to continuously improve teacher quality need to focus on the following priority areas. Firstly, the implementation of a system of professional development for teachers, starting from an improved quality of pre-service teacher education, recruitment of correctly certified teachers based on competency, to continuous in-service teacher professional development. Secondly, developing a system of teacher performance assessment that is based on regular competency assessments and linked to student performance, which is separate from the civil service performance assessment system. Thirdly, linking teachers' professional development and performance assessment systems to their salary levels and the other incentives available to them.

Meanwhile, the efforts to further reduce teacher absenteeism need to focus on the following policies. Firstly, involving the community in teacher absence monitoring, in particular, by encouraging school committees to become more active in monitoring teacher activities. Secondly, giving flexibility to local and school level initiatives in an effort to constrain teacher absentee levels, such as allowing schools or school committees to provide financial incentives and disincentives related to teachers' attendance at school. Thirdly, ensure the availability of teachers in remote areas by facilitating the recruitment and education of teachers who come from the local areas which are relatively close to the location of the schools.

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