



Baseline Report

East Java

July 2019



INOVASI – Innovation for Indonesia’s School Children

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July 2019

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The governments of Australia and Indonesia are partnering through the Innovation for Indonesia’s School Children (INOVASI) program. INOVASI seeks to understand how to improve student learning outcomes in literacy and numeracy in diverse schools and districts across Indonesia. The first phase of the program (AUD49 million) began in January 2016 and will continue until June 2020. Working with Indonesia’s Ministry of Education and Culture, INOVASI has formed partnerships with 12 districts in: West Nusa Tenggara; Sumba Island, East Nusa Tenggara; North Kalimantan; and East Java.

INOVASI is an Australia–Indonesia Government Partnership – Managed by Palladium.



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LIST OF ACRONYMS

ACDP	Education Sector Analytical and Capacity Development Partnership
APBD	local government budget funds (<i>anggaran pendapatan dan belanja daerah</i>)
AUD	Australian dollars
Bappeda	regional development planning agency (<i>badan perencanaan dan pembangunan daerah</i>)
BOS	schools' operational funds
BOSDA	regional school operational funds
BPS	Central Bureau of Statistic (<i>Badan Pusat Statistik</i>)
Dapodik	Basic education data
FGD	focus group discussion
HDI	human development index
IDR	Indonesian rupiah
IGI	Indonesian Teachers' Union
INOVASI	Innovation for Indonesia's School Children
KKKS	school principals working group (<i>kelompok kerja kepala sekolah</i>)
KKG	teachers' working group (<i>kelompok kerja guru</i>)
LPMP	Education Quality Assurance Council
<i>madrasah</i>	Islamic school
MGMP	secondary school subject teachers' working groups (<i>musyawarah guru mata pelajaran</i>)
MKKS	vocational teachers' working group
MoEC	Ministry of Education and Culture
MoRA	Ministry of Religious Affairs
<i>musrenbang</i>	multi-stakeholders consultation forum development planning meeting
NGO	non-governmental organisation
NSE	national education standards
PAUD	early childhood education
PGRI	Teachers' Association of the Republic of Indonesia
PKG	sub-district based teachers' working groups (<i>pusat kegiatan gugus</i>)
PNS	permanent civil servant teachers
SBM	school-based management
SLB	schools for children with special needs
Susenas	national socio-economic survey
TK	kindergarten

EXECUTIVE SUMMARY

The provincial government of East Java and the Indonesian Ministry of Education and Culture (MoEC) signed a memorandum of understanding in November 2018 to implement the Innovation for Indonesia's School Children (INOVASI) project in five areas in East Java, namely: Batu city, Sidoarjo, Pasuruan, Probolinggo and Sumenep districts. INOVASI is a collaborative partnership project in the education sector between the Australian and Indonesian governments to improve the learning outcomes of students in primary education, particularly in literacy and numeracy. Through a series of pilot programs, the project focuses on developing, implementing and testing solutions to improve student learning outcomes that work best in the local context.

Once the project was initiated in East Java, INOVASI conducted this baseline study to investigate the social and political context of basic education in the area. The study focuses on seven issues: (a) local stakeholders' perception of education quality; (b) primary education issues and challenges; (c) government programs and policies to overcome the challenges; (d) promising practices or innovations in primary education; (e) local stakeholders' views about teachers' working group (KKG) activities in each district; (f) opportunities to use the village funds to improve the quality of education; and (g) the development planning meetings (*musrenbang*) to support primary education quality improvement programs. This baseline study applied qualitative research methods to meet its objectives. We collected data about the situation of basic education from the perspectives of local stakeholders through interviews and focus group discussions. We conducted a literature review to identify the current policies and programs relating to education at the national and local levels. The current policies and legal documents included in this review were identified during interviews and through electronic searches and other information channels.

This baseline report presents the issues and challenges of basic education in East Java and makes recommendations for INOVASI's future interventions.

Local stakeholder perspectives on education quality in East Java

Most local stakeholders perceive the quality of education as the quality of its outputs, represented by the students who graduate from the system with certain skills and strength of character. This also reflects the expected results of education according to the 2013 curriculum. However stakeholders said there are variations in the quality of education across the districts in East Java. The performance of students in Sidoarjo and Batu city is above the national average according to some education indicators but there are internal disparities in these two areas so improvements need to continue. The quality of education in Pasuruan is considered average while in both Probolinggo and Sumenep it is considered below average.

In Batu and Sidoarjo, literacy is not a major problem for early grade students despite some disparities between urban and rural areas. Local governments consider that developing a culture of reading not only at schools but within families and communities would also improve literacy levels. However, numeracy is considered an issue that needs to be addressed in Sidoarjo. While local stakeholders in Pasuruan observed that literacy issues persist in rural areas and in the eastern part of the district. Furthermore, literacy remains a major issue in Probolinggo and Sumenep districts.

Issues of education quality in East Java

This study highlighted disparities in the quality of education across the five districts in East Java. One issue that emerged was the variations in the quality of teachers and principals. Many teachers lack professional skills and have no opportunity for further training. The fixed mindsets of some teachers exacerbates the situation as their lack of confidence in their students affects learning outcomes. In the religious schools, known as *madrasahs*, many teachers are not permanent employees and without the incentives they lack motivation and commitment. In Probolinggo and Sumenep the issue of quality is secondary to the shortage of teachers and their uneven distribution. Furthermore, stakeholders in all the targeted areas commented on

the wide variations in the management and supervisory skills of the school principals that affect school performance.

According to the stakeholders, the disparities extend to the infrastructure and facilities in schools in East Java and while *madrasahs* are generally more likely to complain, in Probolinggo and Sumenep all schools lack infrastructure and facilities.

This study also identifies factors that affect students' readiness to learn. Despite high participation rates overall in kindergartens in the five study areas, students entering grade one have different competence levels in literacy and numeracy. In the rural areas of Pasuruan and Probolinggo children face language barriers because the language of instruction, Bahasa Indonesia, is not their mother tongue. Low motivation to attend school and parental issues also impact on children's performance at school. In Probolinggo and Sumenep, the study found that child labour has an impact on learning outcomes.

Disparities in access to education were also evident, particularly relating to gender, disabilities and geographical challenges. Gender disparities are evident in higher education in Pasuruan, Probolinggo and Sumenep but not in Sidoarjo and Batu city. In Probolinggo and Sumenep some girls may not be able to pursue higher education due to child marriage practices. Local governments have tried to improve access to quality education for children with special needs or disabilities by introducing inclusive education. However not all schools are inclusive schools and those that are face a number of challenges: there are too few shadow teachers; teachers are not trained and do not have the specialist skills to teach children with special needs; and the schools lack the facilities and infrastructure to support effective inclusive education.

Local stakeholders highlighted some challenges relating to education governance. East Java has a high number of *madrasahs* and the separate systems under the Ministry of Education and Culture (MoEC) and the Ministry of Religious Affairs (MoRA) create imbalances in the organisation, funding and quality of the schools and therefore in the inputs, processes and outcomes of education. Some stakeholders believe that the different jurisdictions of the provincial and district governments also create challenges in improving participation rates (both the net and the gross rates) at senior school level because any improvements will depend on the provincial government's capacity to manage all the senior secondary schools in East Java.

Finally, this study found that parents' socioeconomic status and community participation contribute to the disparities in education quality in East Java. Parents' educational background and employment status determine their ability to support their children's learning. Communities and the private sector can play an important role in improving education quality through monitoring, helping to plan school budgets and fundraising.

Local interventions and current policies in education

Improving the quality of the teachers will improve the quality of education and boost literacy and numeracy levels. This study found that while local government policies and programs focus on improving education quality the districts cannot always allocate the funds to implement them, especially in Pasuruan, Probolinggo and Sumenep. However Sidoarjo has introduced some good practices, including continuing professional development for teachers and an effective literacy program that could succeed in other areas in East Java as well as in other provinces.

Implications for the INOVASI program

1. Aligning with the national government program for continuing professional development for teachers, INOVASI could contribute training material in the form of modules or other learning media focusing on literacy and numeracy teaching in the early grades. The curriculum for early grade teachers could also include multilingual teaching methods where the local language is used as a second language of instruction to overcome the language barriers children encounter in rural schools. Developing a growth mindset among teachers is another essential intervention the program can address to improve teachers' motivation, methods, professional competency and commitment. Using INOVASI's action research

approaches could also produce evidence on the most effective curriculum to improve teachers' competencies.

2. INOVASI's literacy program can also collect local best teaching practices, test these methods to assess their effectiveness and then integrate them into various learning media so other teachers can replicate them. Teachers' working groups and other professional development channels can also be used to promote these best practices.
3. Considering the vital role of principals and school supervisors, INOVASI should involve them in all their interventions to improve education quality at school level.
4. INOVASI can promote teachers' working groups as a professional development forum by developing the capacity of the working group committees to manage and develop effective programs. Pilot programs designed to improve teacher quality can be implemented through the teachers' working groups. Furthermore INOVASI can promote the problem-solving discussion model in these groups, creating a forum where challenges in the classroom can be shared and explored.

Policy implications

1. INOVASI can use the change in governor in East Java and the newly elected district heads in some targeted areas as an opportunity to advocate improving the quality of education as a key agenda in the new mid-term development plans at provincial and district level. The emphasis will be on improving teachers' qualifications and promoting a culture of reading. The Sidoarjo district government has set a good example by committing to improving literacy through a specific indicator in its mid-term plan. Stakeholders recognise the potential of village funds and INOVASI could support local governments by advocating using village funds to improve the quality of education and to promote a reading culture at village level. Finally, this strategy will help sustain the INOVASI initiatives in East Java.
2. Sidoarjo has issued effective policies in teachers' professional development and in literacy and INOVASI can promote these policies in other areas in East Java and in other provinces by facilitating the sharing and exchange process.
3. While Sidoarjo and Batu city have invested in programs to improve teachers' competencies, other districts have minimal budgets for such programs. By analysing the cost-effectiveness of the policies in targeted areas, local governments will be better able to evaluate the effectiveness of such programs. This analysis would help Pasuruan, Probolinggo and Sumenep identify education programming issues and potential sources of additional funding (or a reallocation of the existing education budget) for the quality aspects of education.
4. Considering the high number of religious schools (*madrasahs*) in East Java, INOVASI can advocate government to review and generate policies to address any inequalities in input, processes and quality between the regular and *madrasah* schools due to the different capacities in the Ministry of Education and Culture (MoEC) and the Ministry of Religious Affairs (MoRA) to manage the education system under their jurisdictions. The situation in East Java calls for discussions on appropriate structures and funding schemes needed to improve the quality of education offered by the *madrasahs*.

1. INTRODUCTION

1.1 BACKGROUND

INOVASI is a AUD49 million education program funded by the Australian government and conducted in partnership with the Indonesian Ministry of Education and Culture (MoEC). INOVASI is designed as an eight-year program, with two four-year phases. The current, first phase began in January 2016 and will continue until June 2020. The goal of the INOVASI program is to accelerate progress towards improved learning outcomes for Indonesian students. At the sub-national level, INOVASI works with a number of partner districts to identify and test teaching and learning practices that effectively improve learning outcomes in the particular context. INOVASI works with four districts and one municipality in East Java, namely: Batu city and the districts of Sidoarjo, Pasuruan, Probolinggo and Sumenep. These were chosen after a comprehensive situational analysis of the teaching and learning conditions and evidence of innovative district governance practices across the targeted areas. The criteria included population size, buy-in and financial resources, as well as the need for development.

To ensure any interventions are relevant in the context, INOVASI conducted this baseline study at the provincial and district levels where it operates. The study focuses on the perceptions of stakeholders on issues in primary education in East Java. The particular issues identified in this baseline study include: (1) the overall quality of education; (2) specific challenges such as: students' low literacy and numeracy levels, teachers' qualifications, competence and distribution, ineffective learning processes and inadequate facilities and infrastructure; (3) local government policies and programs to support basic education quality; (4) local best practices to achieve basic education quality; (5) the status and effectiveness of teachers' working groups, (6) local government development planning and allocation of village funds (ADD); and (7) current and potential partnerships. Additionally, this study aims to support pilot project design and implementation and to capture relevant issues for pilot activity support. With reference to the INOVASI theory of change and results framework, as well as to the district planning results in East Java, INOVASI will use the results of this study to design, improve, adjust and evaluate its pilot programs. The INOVASI pilot programs in East Java are as follows:

- The numeracy pilot in Sidoarjo that aims to improve early grade numeracy skills and the policies to support these improvements;
- The continuing professional development pilot program in Sidoarjo and Pasuruan aims to generate practices to continuously improve teachers' professional competency as well as students' literacy and numeracy skills;
- The literacy pilot program in Sumenep and Probolinggo aims to improve early grade students' literacy skills and encourage changes in policy to support the improvements;
- The multigrade teaching pilot in Probolinggo aims to generate practices and policies in managing multigrade classes in small schools and to improve the quality of education;
- The leadership for learning pilot in Batu city aims to generate practices and policy changes in school management and improve literacy and numeracy levels.

Parallel to this baseline study to document the existing conditions before any interventions from INOVASI, the program also separately consulted with local governments on potential interventions.

1.2 AIMS AND OBJECTIVES

The overall aim of this baseline study is to capture and provide information on primary education service delivery in East Java as well as on relevant policies to support INOVASI's pilot programs. Through this

baseline study, INOVASI can review, adjust and improve the direction, strategy and activities of the pilot programs in East Java to ensure their effectiveness. Using this baseline data, any changes resulting from the pilots can be measured regularly and systematically.

At the pilot level, as described in INOVASI's theory of change, this baseline report will help to: (1) record and identify national and local policy issues; (2) diagnose and understand local challenges, policies and informed solutions; (3) design relevant pilot programs for the context of East Java; (4) implement the relevant pilot programs; and (5) identify the effects of any changes in practices on stakeholders and on students' learning outcomes. At the program level, this baseline report will be used to monitor any changes in practices from the scale-out and system-based pilot programs and in policies (regulations, budgets and plans) that directly and indirectly improve learning outcomes.

This study was designed by the national monitoring, evaluation, research and learning division (MERL) of INOVASI in Jakarta with assistance from a short-term consultant.

2. METHODOLOGY

This study aims to understand local stakeholders' perceptions of the quality and challenges in basic education in the area as well as to gain an insight into any existing policies, initiatives or solutions that have been developed. The results of this study will enrich the data provided by statistical and quantitative studies and to serve this purpose we used a qualitative research approach.

2.1 DATA COLLECTION

The two main techniques we used to collect data were semi-structured interviews and focus group discussions. Interviews were conducted at provincial and district levels while the focus group discussions were only held at the district level. Relevant documents were also reviewed to support our analysis. The literature review included current policies and program documents related to education at the national and local levels. These were identified during interviews or through electronic searches or from other information channels.

The main questions raised in the interviews and focus groups revolved around: (a) the notion of education quality according to the local stakeholders; (b) issues and challenges in primary education; (c) government programs and policies to overcome the challenges; and (d) other promising practices or innovations in primary education. In addition, the focus groups explored participants' views about: teachers' working group activities in each district; the use of village funds; the role of the development planning meetings (*musrenbang*) and their potential to support programs to improve the quality of primary education. The interviews and discussions lasted from 15 to 90 minutes and were all recorded using digital voice recorders. Three researchers (short term consultants) collected the data in focus group discussions and interviews.

2.2 SETTINGS AND PARTICIPANTS

The study involved five locations in East Java: Batu city and the districts of Sidoarjo, Pasuruan, Probolinggo and Sumenep. Data was also collected from local education stakeholders at the provincial level in Surabaya to gain a general view of basic education in East Java.

A wide range of local stakeholders from district and provincial levels participated in the study. Table 2.1 lists the interview participants based on their positions.

Table 2-1: List of interview participants based on positions

Province	Districts
<ol style="list-style-type: none"> 1. Head or secretary of the provincial education office 2. Social and cultural division officer at the regional development planning agency (Bappeda) 3. Head of the education quality assurance council (LPMP) 4. Head of the education board 5. Head of the Teachers' Association of the Republic of Indonesia (PGRI)/ or the Indonesian Teachers' Association (IGI) 6. Head of the East Java education forum 7. Head of the education section of <i>Ma'arif Nahdlatul Ulama</i> (Islamic organisation) at the provincial level 8. A representative of the education division of <i>Muhammadiyah</i> (Islamic organisation) 	<ol style="list-style-type: none"> 1. Chief or member of the education sector commission in the regional legislative assembly 2. Head or secretary of the district education office 3. Primary education division officer at the education office 4. <i>Madrasah</i> education division at the Ministry of Religious Affairs (MoRA) 5. Social and cultural division at the regional development planning agency (Bappeda) 6. Head of the education board 7. Head of the teachers' association PGRI/IGI 8. Head of the education section of <i>Ma'arif Nahdlatul Ulama</i> (Islamic organisation) at the district level 9. A representative of the education division of <i>Muhammadiyah</i> (Islamic organisation)

For the focus group discussions, participants in each district were divided into two groups: group A consisted mainly of local stakeholders from MoEC and MoRA while group B included participants from more diverse entities (**Error! Reference source not found.**).

Table 2.2: List of focus group discussion participants, based on position

No	Group A	Group B
1	A representative of the teachers' working group (primary school teacher)	A representative of the primary education division at MoEC
2	The head of a cluster of primary schools (school principal)	A representative of the regional development planning agency at the district level
3	Primary school inspectors	A representative of the Ministry of Social Services
4	Head of the curriculum and assessment section at MoEC	A representative of the education board
5	Teachers and education personnel division officer at MoEC	A representative of the women's empowerment and child protection agency
6	Programs and planning sub-division officer at MoEC	Village head or head of the community empowerment board and village government
7	<i>Madrasah</i> education division officer at MoRA	A representative of a local non-governmental organisation (NGO)

2.3 DATA ANALYSIS

This study used mainly qualitative data collected in an ongoing, inductive process that continued up to the time this report was written. After the fieldwork was completed, all the raw data was organised and prepared for further analysis. The interview and focus group recordings were transcribed for the qualitative data analysis process. We analysed the annotated transcripts of the interviews and discussions thematically.

Codes and categories were developed using both deductive (based on the list of questions) and inductive (based on new codes that emerged from the discussions and interviews) logic. Coding was then conducted during the second phase that consisted of two processes: (1) generating initial codes to identify temporary patterns in the data; and (2) reviewing the coding to make sure it related to the research questions and that each code reflected a different idea. The next phase was initially to identify themes from the coding, review these themes and then determine the recurrent themes. Ultimately, the integrative analysis ensured that the findings from the literature review and qualitative study were triangulated.

3. EDUCATION PROFILE OF EAST JAVA PROVINCE

The East Java government increased its human development index (HDI) from 69.74 in 2016 to 70.27 in 2017. This placed East Java in the high ranking position of number 15 out of the 34 provinces in Indonesia for the first time. However, this success was not equally shared across its regions. Table 3.1 shows HDI levels across districts in East Java and particularly in INOVASI areas. The HDIs in Batu city and Sidoarjo are above the provincial levels while Pasuruan, Probolinggo and Sumenep are at the medium level. This reflects disparities in achieving key dimensions of human development, including: health, education and a decent standard of living in these areas.

3.1 EDUCATION OUTCOMES

The gaps in education progress are more obvious on closer examination. The mean years of schooling in Sidoarjo show that people aged 25 and older attained a minimum average of nine years of basic education. Meanwhile, in Batu city and Pasuruan the average shows that they only completed primary schooling. However people in Probolinggo and Sumenep districts generally did not complete their primary schooling. People in Batu city and Sidoarjo are expected to have more than 14 years of schooling so seven-year-olds should continue studying until the second year of a diploma course. People in the rest of the districts are expected to have about 12 years of schooling – equivalent to senior secondary school.

Table 3.2: The human development index in East Java and in INOVASI partner districts, 2017

District	Life expectancy at birth	Expected years of schooling	Mean years of schooling	Expenditure per capita (000 IDR)	HDI
East Java province	70.80	13.09	7.34	10,973	70.27
Batu city	72.25	14.03	8.46	12,057	74.26
Sidoarjo district	73.71	14.34	10.23	13,710	78.70
Pasuruan district	69.90	12.05	6.82	9,665	66.69
Probolinggo district	66.47	12.06	5.68	10,239	64.28
Sumenep district	70.71	12.74	5.22	8,316	64.28

Source: Human development index of East Java (BPS East Java, 2017)

In terms of access to education, almost all children under 15 years old in Sidoarjo, Pasuruan, Probolinggo, Sumenep and Batu city were enrolled in educational institutions. Most children under six years old in the five targeted areas have higher access to early childhood education than children in other districts (Table 3.2). The net enrolment rates for children aged 7–18 years in Batu city and Sidoarjo districts are consistently higher than the provincial average, indicating greater access to 12 years of education. Children in the same age group in Pasuruan and Sumenep districts show a reversal trend in comparison. However, there were declines in gross and net school enrolment rates at senior secondary school in all targeted areas and there was a clear gap in accessing 12 years of education across the targeted areas. This suggests that the low access to senior secondary schools are due to socio-cultural factors, including: economic reasons, early marriages, children working to help their parents; prevailing perspectives that higher education is not a

priority; and students' lack of motivation to continue their studies (BPS, 2018; East Java education statistics, 2017).

Table 3.2 shows that net enrolment rates at all education levels in East Java are below 100 per cent so some children did not enrol at school at an appropriate age. Age is considered important in improving education quality because students' ages influence their academic performance (Konarzewski, 2014). The challenge to improving enrolment rates in East Java is the tendency to enrol children in school too early (BPS, 2018).

Table 3.3: Gross and net enrolment rates in East Java and the INOVASI areas, 2017

Provinces and districts	Gross enrolment rate				Net enrolment rate		
	Early childhood education (PAUD/TK)	Primary	Junior secondary school	Senior secondary school	Primary	Junior secondary	Senior secondary school
East Java	95.70	105.06	103.66	83.87	94.88	81.11	65.86
Batu city	99.48	104.26	106.24	92.54	95.49	83.39	70.23
Sidoarjo	100.61	104.40	103.87	88.54	96.26	84.82	71.05
Pasuruan	99.54	102.44	101.77	67.25	90.91	76.28	52.83
Probolinggo	101.69	109.44	104.06	75.08	95.72	77.00	58.12
Sumenep	97.43	104.42	102.82	82.41	91.67	74.97	60.82

Source: Gross/net enrolment rate for PAUD, primary, junior secondary and *madrasahs* for 2016/2017, MoEC, 2017

Notes: PAUD = early childhood education; TK = kindergarten

Table 3.4: School enrolment rates in East Java and the INOVASI areas by school level and gender, 2017

Provinces and districts	Primary school		Junior secondary school		Senior secondary school	
	Male	Female	Male	Female	Male	Female
East Java	99.49	99.65	96.42	97.17	72.85	70.14
Batu city	100	100	98.45	98.57	82.85	84.17
Sidoarjo ct	99.76	100	100	97.79	88.44	81.16
Pasuruan	100	100	98.65	94.96	67.18	57.5
Probolinggo	98.23	99.19	90.69	93.19	62.96	39.16
Sumenep	99.26	100	97.87	93.4	80.74	62.68

Source: East Java education statistics, 2017

Table 3.4 presents education access by gender and shows that boys and girls have equal access to education at primary school level. However, gender disparities emerge at the junior and senior secondary school levels. Access to senior secondary school is higher for boys than girls in all the targeted areas except Batu city. A study by Kusreni and Syafii (2011) confirmed that based on literacy competency among adults and years of schooling, boys have better access to education compared to girls in almost all areas in East Java. The authors suggest that communities value men's dominant position in society and this leads to gender disparities in education. Meanwhile, women are expected to help more with domestic chores (Widodo, 2006; Kusreni and Syafii, 2011). In some areas in East Java, parents are likely to arrange early marriages for their young girls to reduce their economic burden and responsibility (Kusreni and Syafii, 2011).

In INOVASI intervention areas, child marriage is a major issue. Central Bureau of Statistics (BPS) data reveals that in 2016 a high proportion of girls aged ten years and over were married before they were 18 years old: 41.18 per cent in Probolinggo, 33.87 per cent in Sumenep, 24.26 per cent in Pasuruan, 16.61 per

cent in Batu city and 6.73 per cent in Sidoarjo (BPS, 2009–2016). The data showed that girls in INOVASI targeted areas are also at risk of child marriages.

Another issue affecting enrolment rates in schools is the access to education for children with disabilities or special needs. The Indonesian government provides special schools and has introduced inclusive schools to improve access to education for these children. However, despite these efforts children with disabilities still seem to have limited access to education. A study by the Ministry of Social Affairs in 2010 found that 60 per cent of people with disabilities in Indonesia had never enrolled in schools and that 75 per cent of those who attended school only went to primary school (Irwanto *et al.*, 2010). In 2017, MoEC estimated that out of the 1.6 million children with disabilities in Indonesia, only 18 per cent access education through either special schools (115,000 children) or inclusive schools (299,000 children) (MoEC, 2017). This means that 82 per cent of children with disabilities had no access to education at that time.

East Java province has one of the highest numbers of people with disabilities aged 15 years and over in Indonesia (ILO, LPEM FEB UI, 2017). Recent data shows that the number of children with disabilities in the province is also high. In 2017, the East Java social services office identified 30,522 children with disabilities in the province and the highest concentration of these children (3,270 children) was in Probolinggo district (BPS, 2017). Local governments have tried to improve access to education for these children through 437 special schools (2017 figures) (MoEC, 2017) and 1,282 inclusive schools (2015 figures) (JICA, 2015). Nevertheless, the limited data available shows that these children are vulnerable to being excluded from education. The gap in access to education among children with disabilities in East Java is evident since the number of children enrolled in special and inclusive schools is lower than the number of children with disabilities estimated by the East Java social services office. The statistics on special education for 2016/2017 showed that 17,416 students were enrolled at 437 special schools in East Java (MoEC, 2017). MoEC data reported that 3,250 children with disabilities were enrolled in inclusive junior secondary schools in East Java in 2016.

Apart from school enrolment, this chapter also examines East Java's achievements based on education outcomes, including completion rates, exam results, repeater rates and literacy levels.

Overall, learning outcomes in East Java are higher than the national average. The completion rates at primary school were above the national level for the period 2016 to 2018 (see Table 3.5). The average results in the national end-of-level examinations at all education levels are also above the national level (see Table 3.6). However, achievements vary across the cities and districts. Table 3.6 shows that the average scores for the national examinations at all education levels in Batu city and Sidoarjo districts are consistently higher than provincial and national averages. The average rates in Pasuruan were higher than the national averages but lower than provincial averages. Meanwhile the average results in Probolinggo and Sumenep were consistently lower than the provincial and national averages.

Table 3.5: Primary school completion rates: East Java, 2014–2018

Year	Completion rate	
	Provincial	National
2014/2015	99.37	99.57
2015/2016	99.52	99.7
2016/2017	99.95	99.83
2017/2018	99.9	99.78

Source: MoEC, 2017/2018

Table 3.6: Average results in national end-of-level examinations: Indonesia, East Java province and INOVASI intervention areas

School levels	Junior secondary	Senior secondary (science)	Senior secondary (social and economic studies)	Vocational secondary
National	51.10	51.00	45.69	45.21
East Java province	52.71	55.96	47.38	46.55
Batu city	58.23	58.90	55.38	51.19
Sidoarjo district	57.16	62.13	53.03	48.74
Pasuruan district	55.08	54.90	46.49	46.09
Probolinggo district	45.28	48.07	40.33	41.36
Sumenep district	46.24	44.12	40.28	39.86

Source: East Java education office (balance sheet), 2018

East Java also performed better than other provinces with regard to repeater and dropout rates,. The percentage of repeaters at primary schools in 2017/2018 was lower than the national average (0.94 compared to 1.44). Pasuruan, Probolinggo and Sumenep have more repeaters than Batu city and Sidoarjo (MoEC, NIEP, 2018). The high repeater rate is evident among children in grades one to three suggesting that the quality of education needs to improve in the early grades. The dropout rates at primary schools in East Java are also slightly lower than the national average (0.07 compared to 0.13). The number of repeaters and dropouts were consistently higher among boys than girls. There is a growing assumption that the girls tend to be persevering and disciplined and so they perform better than the boys. Kusreni and Syafii (2011) identified factors that lead to children repeating or even dropping out of school: (1) lack of support from parents for children's education at home; (2) parents' preference for their children to work and earn money rather than pursue higher education; (3) common practices in the community where people favour work over school.

Table 3.7: Repeater and dropout rates by grade: primary schools in East Java, 2017/2018

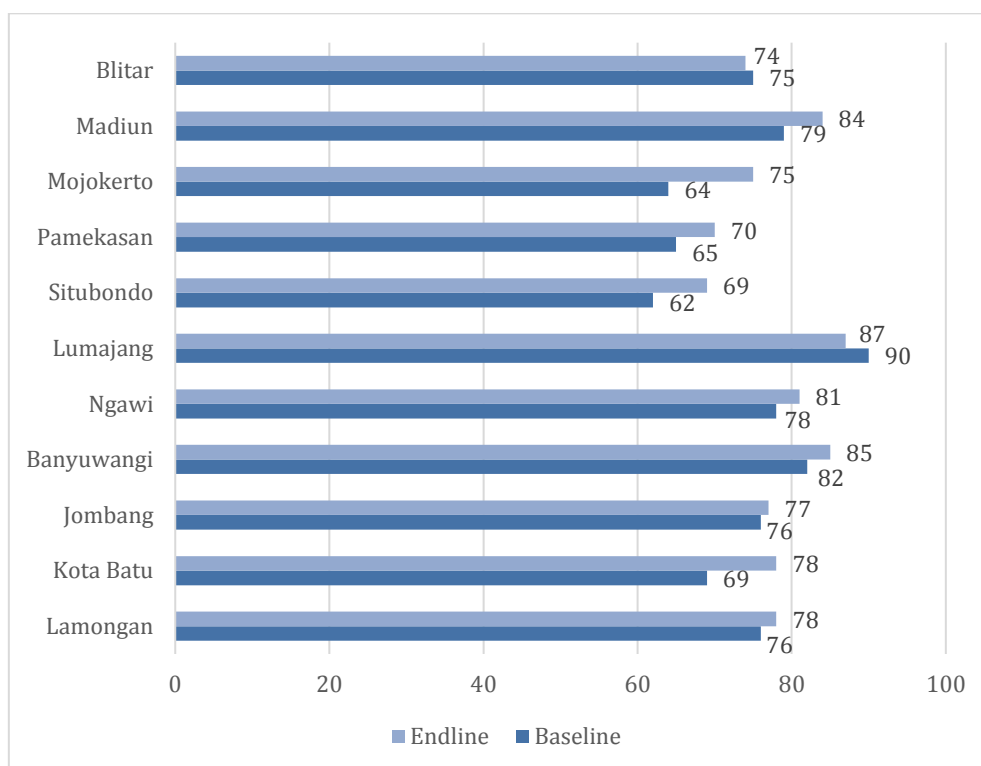
Grade	Students by gender		Number of repeaters by school type		Number of repeaters by gender		Total repeaters	Repeater rates		Dropouts rates	
	Boys	Girls	Public	Private	Boys	Girls		Provincial	National	Provincial	National
1	244,889	222,949	12,806	675	8,778	4,703	13,481	2.82	3.73	0.13	0.15
2	245,313	225,571	4,984	240	3,691	1,533	5,224	1.1	1.76	0.05	0.1
3	245,621	226,749	3,553	259	2,732	1,080	3,812	0.8	1.43	0.04	0.09
4	246,965	227,655	2,273	190	1,741	722	2,463	0.51	0.94	0.05	0.09
5	251,571	232,599	1,709	220	1,278	642	1,929	0.41	0.71	0.05	0.11
6	243,690	225,361	59	3	36	26	62	0.01	0.04	0.1	0.23

Source: MoEC, primary school statistics, 2017/2018

Besides examining the general performance of schools in East Java, we also focused on literacy skills among early grade students. These skills are indispensable in developing other skills and knowledge in schools. In order to understand a reading passage, 'children must read at between 45–60 words per minute' (ACDP, 2014: 3) and a study by the USAID program, PRIORITAS, found that in some districts in East Java children read more than 60 words per minute (USAID PRIORITAS, 2013) (see Figure 3.1). The study also found that about 80 per cent of students at partner schools were able to read at least 51 correct words per minute and mostly with strong comprehension. Despite these results, reading competency levels are low in East Java. The PRIORITAS study also suggests that about 20 per cent of the students who can read at this

pace have limited understanding of the text. Disparities in literacy competency remain according to demographic characteristics, including gender and location. Girls outperform boys and students from urban areas outperform those from rural areas. The early grade reading assessment (EGRA) by PRIORITAS also found that students' fluency in reading aloud varied across districts.

Figure 3.1: Fluency in reading aloud, in selected districts in East java



Source: USAID PRIORITAS, 2013

3.2 EDUCATION INPUT

The education system in Indonesia comprises two systems, regular schools under the jurisdiction of MoEC and Islamic schools, known as *madrasahs*, under MoRA's jurisdiction. *Madrasahs* offer Islamic education that includes specific subjects related to Islam as regulated by MoRA from primary to secondary school. However, both types of school use the national education curriculum as stipulated by MoEC.

East Java has a strong Islamic cultural background that shapes education in the province. It has the most *madrasahs* out of all the provinces. Out of the 38,297 educational institutions from primary to senior secondary school level in East Java, 67 per cent are regular schools and 33 per cent are *madrasahs*. Out of the total of 7,266,953 students from primary and senior secondary schools, 75 per cent attend regular schools and 25 per cent attend *madrasahs* (MoEC, 2017). The proportion of *madrasahs* is higher in Pasuruan, Probolinggo and Sumenep compared to Sidoarjo and Batu city (see Table 3.8). This reflects the important role the *madrasahs* play in delivering education services in East Java, particularly for children in remote or isolated areas, from low-income families or for families who want an emphasis on Islam within the education system. Therefore, this study presents the education input in East Java in the two systems.

Table 3.8: Number of schools by category in East Java province and the INOVASI areas, 2018

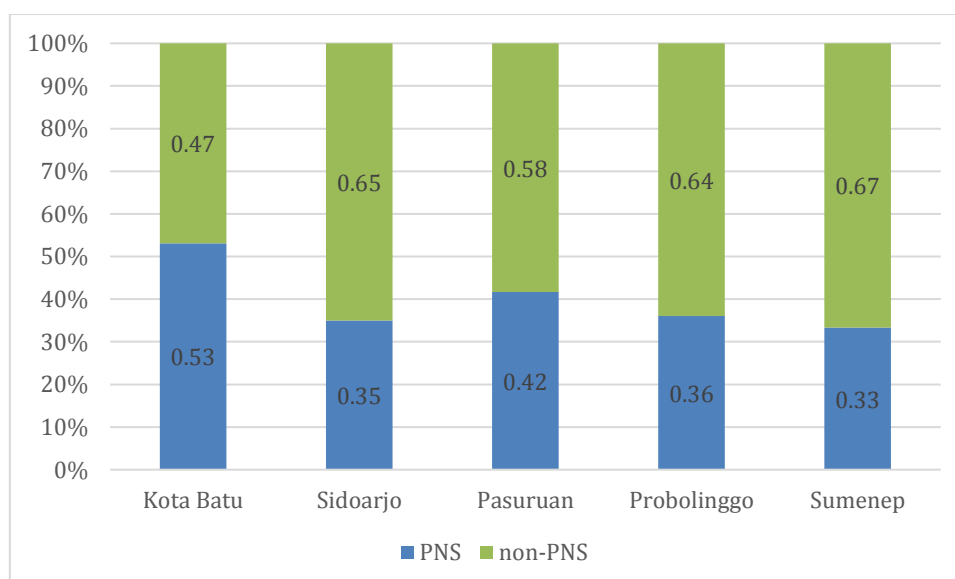
	Primary schools			Junior secondary schools			Senior secondary schools		
	SD	MI	Total SD/MI	SMP	MTs	Total SMP/MTs	SMA	MA	Total SMA/MA
East Java	19,292	7,345	26,637	4,721	3,627	8,348	1,543	1,769	3,312
Batu city	76	14	90	27	5	32	12	3	15
Sidoarjo district	574	234	808	176	66	242	70	40	110
Pasuruan district	714	306	1020	148	176	324	43	84	127
Probolinggo district	633	404	1,037	213	190	403	77	97	174
Sumenep district	655	549	1,204	188	323	511	84	154	238

Source: MoEC, 2019

Notes: SD = primary schools; MI = primary *madrasahs*; SMP = junior secondary schools; MT = junior secondary *madrasahs*; SMA= senior secondary schools; MA = senior secondary *madrasahs*

The education system in East Java relies on non-permanent teachers. The moratorium imposed on hiring new civil servants in 2015, combined with the annual retirement of permanent teachers has affected the supply of permanent teachers in East Java. Despite this, the teacher–students ratios in the targeted areas show that the total number of teachers (both permanent and non-permanent) is sufficient to deliver education services. Based on teacher–students and class–students ratios, provincial and districts governments fulfil the minimum standards for national education services stipulated in MoEC regulation No 24 of 2007 to provide a conducive environment for learning. However, the teachers’ different employment statuses mean different benefits for permanent and non-permanent teachers. Non-permanent teachers are hired according to a letter or decree from the principal or local government and they are paid from the regional budget (APBD) or the schools’ operational funds (BOS). They usually earn less than their permanent teacher colleagues. According to the Education Management Information System (2017), most teachers at public *madrasahs* are government teachers. The teacher–student ratio also meets the minimum indicators in the national education standards.

Figure 3.2: Proportion of teachers at regular schools, by employment status



Source: Local education office balance sheet, 2018

Table 3.9: Education ratios: regular schools, East Java and INOVASI areas, 2018

	Primary school			Junior secondary school			Senior secondary school		
	Teacher : students	Class : students	Room : Class	Teacher : students	Class : students	Room : Class	Teacher : students	Class : students	Room : Class
East Java	17	10	2	17	14	2	17	15	2
Batu city	19	24	1	17	28	1	15	29	0.9
Sidoarjo district	20	14	2.2	22	16	1.9	20	16	2
Pasuruan district	20	12	2.1	18	15	2	17	15	2.1
Probolinggo district	17	9	2	15	13	2	16	13	2.3
Sumenep district	10	14	1	10	23	1	12	26	1.1

Source: Local education office balance sheet, 2018

Table 3.10: Education ratios: primary *madrasahs*, 2017

	Teachers	Students	Teacher– students ratio
East Java	82,898	930,617	11.23
Batu city	216	3,599	16.66
Sidoarjo	3,094	52,424	16.94
Pasuruan	3,046	32,123	10.55
Probolinggo	4,274	36,668	8.58
Sumenep	6,421	44,593	6.94

Source: Education Management Information System (EMIS), 2017

On average, regular and *madrasah* schools in East Java have had support from good quality teachers compared to other provinces in Indonesia. Over 92 per cent of teachers at regular schools from primary to senior secondary schools, vocational and special schools have the teaching qualifications stipulated in Law No 14 of 2005 on teachers that regulates the minimum teacher qualification in Indonesia as a four-year university degree or diploma. Table 3.11 shows teachers' qualifications at regular school across East Java, especially in the targeted areas. The proportion of qualified teachers from early childhood education (PAUD) to senior secondary school level in Batu city and Sidoarjo district are consistently higher than the provincial average. The percentage of qualified teachers in Probolinggo and Sumenep districts is below the provincial average. At *madrasahs*, the proportion of teachers with minimum teachers' qualification is on average 83 per cent, lower than the regular schools (Table 3.12).

Table 3.11: Percentages of teachers at regular schools by qualification and certification status, East Java and INOVASI areas, 2018

	PAUD		Primary schools		Junior secondary schools		Junior secondary schools		Vocational schools		Special schools	
	≥D4	certified	≥D4	certified	≥D4	certified	≥D4	certified	≥D4	certified	≥D4	certified
East Java	77.9	36	93.5	49.1	95.4	58.6	97.7	55.1	95.5	38.5	92.4	44.8
Batu city	85.3	52.3	93.	58.5	96.5	60.1	98.1	61.2	92.7	45.6	88.	27.8

			1								9	
			96.								89.	
Sidoarjo district	86.5	43.2	8	48.5	97.4	58.5	97.9	55.6	96.6	41.4	6	53.1
Pasuruan district	68.6	22.5	92	48.6	95.5	57.1	96.9	45.8	95	36.6	1	42.6
Probolinggo district	65.2	26.7	90.	42	90.2	36.8	94.5	34.3	92.6	16.9	1	48.8
			84.								78.	
Sumenep district	64.9	25.1	5	37.7	90.1	29.9	96.1	27.9	91.8	13.8	8	9.1

Source: Local education office balance sheet, 2018

Notes: D4 = four-year diploma

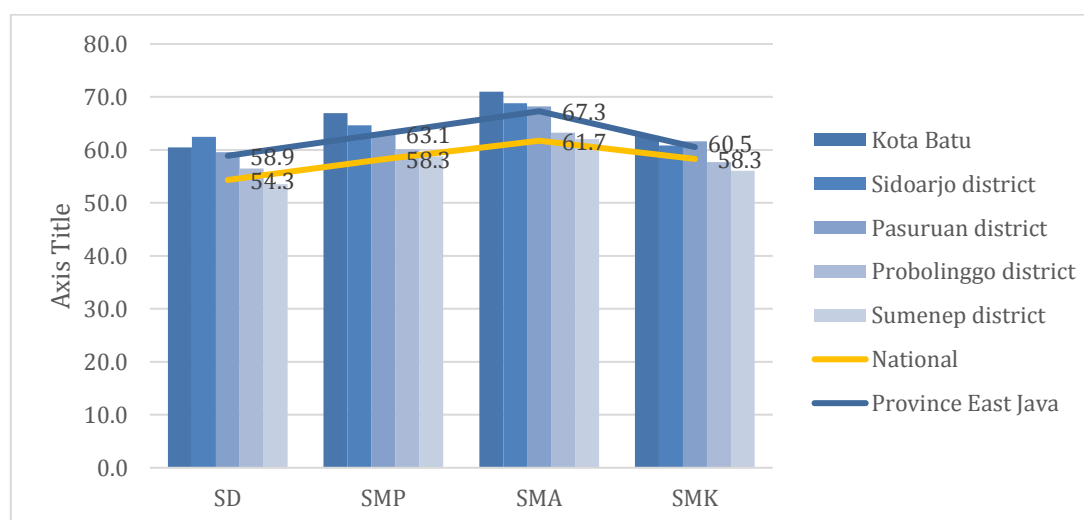
Table 3.12: Percentage of teachers by qualification and certification status at madrasahs at all education levels (primary, junior secondary and senior secondary), 2018

	Permanent teachers		Qualification (4-year diploma or above)		Certified teacher	
	Public	Private	Public	Private	Public	Private
East Java	70.2	5.4	87.5	78.9	64.0	41.8
Batu city	-	9.7	-	81.9	-	31.5
Sidoarjo	84.2	3.8	80.7	87.8	66.7	50.9
Pasuruan	97.3	6.5	100.0	76.3	93.2	36.0
Probolinggo	64.6	4.4	79.2	64.3	70.8	34.2
Sumenep	70.4	3.5	96.3	63.5	61.1	24.5

Source: EMIS, 2017

Furthermore, Figure 3.3 shows that teachers in East Java outperform teachers from other provinces in the teachers' competence test. The results indicate that on average teachers in East Java are competent in subject matter and pedagogy. However, the differences in the test results across the targeted areas also emerge. Teachers in Batu, Sidoarjo and Pasuruan appear to be more competent than teachers in Probolinggo and Sumenep. The differences in qualifications and test results of teachers in Probolinggo and Sumenep point to why education outcomes in those two districts are lower than in Batu city, Sidoarjo and Pasuruan.

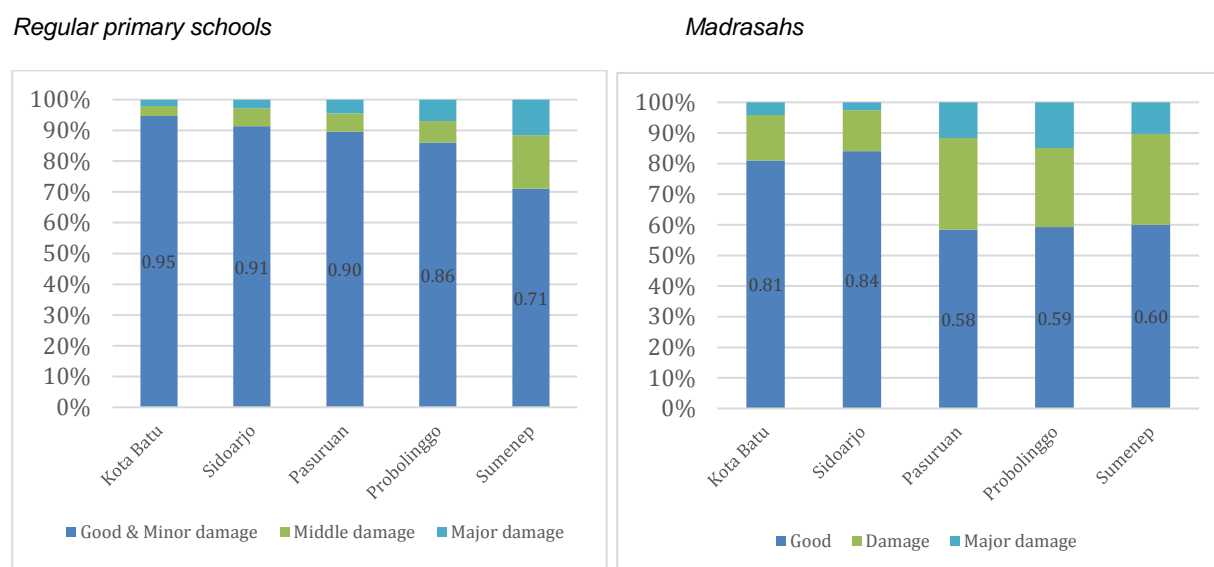
Figure 3.3: Teachers' competencies test: average results, national, East Java province and INOVASI areas, 2016



Notes: SD = primary schools; SMP = junior secondary school; SMA = senior secondary school; SMK = vocational school

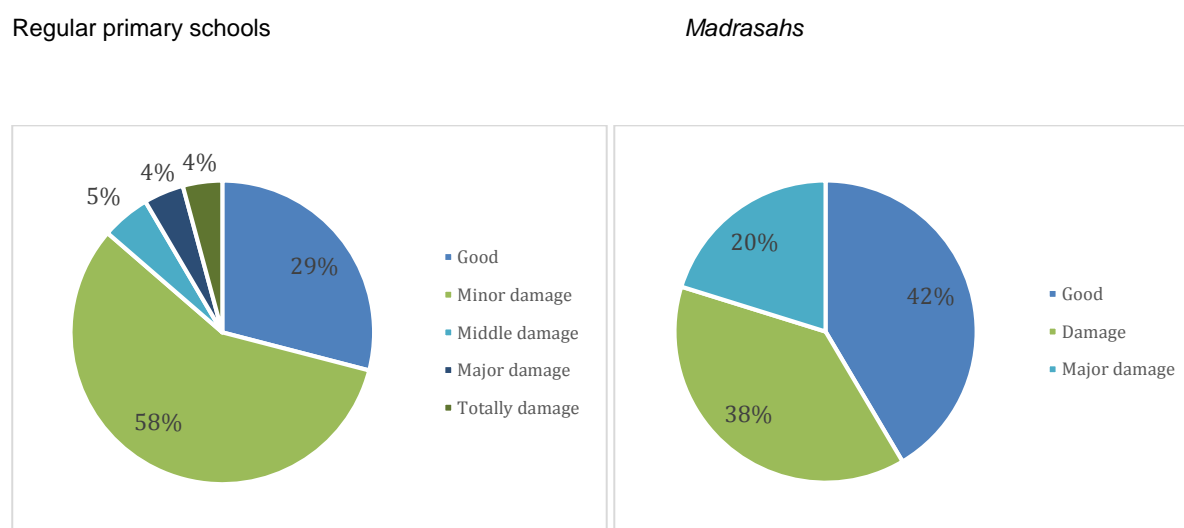
Apart from having sufficient qualified teachers, having a good quality library is essential to support the learning process at school and especially to promote a reading culture among students. Figure 3.4 shows the recent situation with regard to school infrastructure and library facilities in the INOVASI targeted areas. The graphs illustrate that classrooms at regular schools are in better condition than those in the *madrasahs* and the schools' infrastructure varies across districts. Batu city, Sidoarjo and Pasuruan have good quality classrooms to support the education process compared to Probolinggo and Sumenep. MoEC found that out of the 12,054 regular primary schools in East Java, only 62.4 per cent have libraries and their condition varies, as shown in Figure 3.5. This means that about 38 per cent of regular schools do not have libraries. The situation in the *madrasahs* also varies (Figure 3.5). Using different classifications from those used for regular schools, 42 per cent of libraries in *madrasahs* are good quality while the rest are in poor condition.

Figure 3.4: Condition of classrooms at regular primary schools and *madrasahs*: INOVASI areas in East Java



Source: Local education office balance sheet, 2018; EMIS, 2016

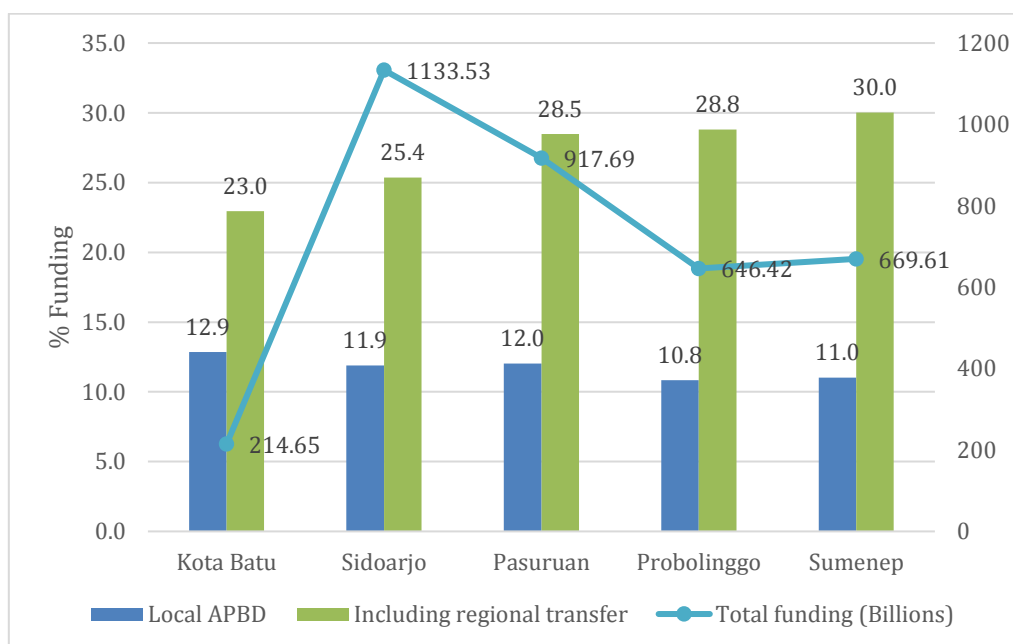
Figure 3.5: Condition of libraries at regular primary schools and *madrasahs*: INOVASI areas in East Java



Source: MoEC primary school statistics 2017/2018 ; EMIS, 2016

In terms of education funding, the amended 1945 national constitution and Law No 20 of 2003 on national education mandate that the government allocates 20 per cent of its development budget for education. Overall, East Java province and local governments in the five districts in East Java have complied with this regulation. Figure 3.6 illustrates the situation of education funding in East Java. In terms of the proportion of budget for education, Sumenep allocates a higher percentage of its expenditure (30 per cent including regional transfers) on education than other areas. However, in terms of total amount spent on education, Sidoarjo government, with fewer schools, spent more (IDR1,133.53 billion) than Pasuruan, Probolinggo and Sumenep. The data indicates that total spending on education is determined by the fiscal capacity of each local government.

Figure 3.6: Local government budgets allocated to education: INOVASI areas in East Java, 2018



Source: Local education office balance sheet, 2018

This chapter reflects the variations in education development and performance across the districts in East Java and particularly in Batu city, Sidoarjo, Pasuruan, Probolinggo and Sumenep districts. Batu and Sidoarjo perform better than the other districts according to their HDIs and education outcomes. Similarly, education in these two areas is supported by better quality teachers, infrastructure and facilities, as well as a good proportion of budget for education. The following chapter elaborates on the issues and challenges of the education system in the targeted areas based on local stakeholders' perceptions.

4. FINDINGS

This chapter presents local stakeholders' perspectives on: education quality; the current issues or challenges in primary education that affect learning outcomes in primary schools in East Java, particularly in Batu city, Sidoarjo, Pasuruan, Probolinggo and Sumenep districts; and priority areas for intervention to improve the quality of education. We explore the current strategic actions that local stakeholders are taking to address the problems in primary education, how they are being implemented and the future direction stakeholders expect to take to improve learning outcomes in East Java. We also review the current status of the teachers' working groups and the development planning process (*musrenbang*).

4.1 STAKEHOLDERS' PERCEPTIONS OF EDUCATION QUALITY

Definition of education quality

Most stakeholders define the quality of education by the quality of its outcomes that are evident in the graduates' knowledge and skills as well as in their strength or nobility of character. Stakeholders defined noble character according to Islamic values and these values are strong in East Java, particularly in Pasuruan. However, there are no distinctions between the views of stakeholders in regular schools and *madrasahs* as they all define education quality with reference to the national education curriculum 2013. Some stakeholders looked further ahead by considering the graduates' prospects in the job market or as self-made entrepreneurs. Other stakeholders focused on national exam results to represent education quality. INOVASI's focus on literacy and numeracy in the early grades was only echoed by two respondents, a teacher and a principal, who mentioned that education quality can be gauged by the literacy and numeracy achievements of early grade students. This suggests that stakeholders are not all aware of the importance of literacy and numeracy indicators in evaluating the quality of education.

'Education (quality) will result in students with noble attitudes: disciplined, responsible, honest and tolerant. They will also be mature, emotionally and spiritually, as well as knowledgeable. We expect students to be able to collaborate and communicate, (develop) critical thinking, be creative and innovative' (male government official, Sidoarjo).

'We can say a primary school is high quality if... first, it develops noble attitudes in the children...and second, it develops their basic competencies. There are six basic competencies they should achieve. If children are competent in literacy, they can communicate and have good levels of comprehension, then they are able to think critically and inventively' (female primary principal, Sidoarjo).

All stakeholders agree that the inputs and processes in education will determine its quality and outcomes. These include: quality teachers; good infrastructure and facilities; adequate funding; student readiness to learn; parental support; as well as community and private sector participation. These factors correspond with the eight minimum indicators of the national education standards (NES) for service delivery that the government introduced through regulation No 19 of 2005 to provide a foundation and criteria for the national education system. The eight standards cover: (a) education content; (b) education processes; (c) competencies of graduates; (d) teachers and other education personnel; (e) infrastructure and equipment; (f) education management; (g) education funding; and (h) education evaluation. All stakeholders emphasise the teachers' role in ensuring education quality, not only through the learning process in the classroom but also as role models. Teachers' qualifications, pedagogical skills and creativity are all perceived as important aspects in a good quality education.

Perceptions of education quality in East Java

The study found a different quality of education across the districts in East Java based on stakeholders' perceptions. At the provincial level, most stakeholders regard education quality in East Java as better than the national average. However, they stress that there are disparities in education quality in the province. This reflects the situation of education in East Java described in chapter 3 and also the perceptions of local stakeholders about the education quality in their areas. They classify education performance in the targeted areas into high, medium or low levels of achievement.

Stakeholders in Sidoarjo view education quality in the district as good compared to other areas in East Java. Both students and teachers from the district often win competitions at provincial and even national levels. This aligns with the study findings for Sidoarjo presented in chapter 3. However, local stakeholders were concerned by the disparities in education quality between urban and rural schools due to accessibility, school facilities and teacher quality.

Similarly, informants in Batu city acknowledge the quality of education in the city since education outcomes meet provincial and national averages, especially in the final exam results. Teachers and students also succeed in national and regional competitions. However, representatives of *madrasah* education highlighted disparities in quality between the regular schools and *madrasahs* in Batu city. One respondent believed that the quality of education in the *madrasahs* in East Java was below the average for the province.

Stakeholders in Pasuruan consider the quality of education in the district as average or medium but still lower than the average for the province or other districts. They pointed out the differences in education quality between east and west Pasuruan that local governments have tried to address.

In Probolinggo, stakeholders classified the education in the district as low quality and below the national average. One respondent said this assessment emerged through a mapping exercise using the indicators from the national education standards that revealed the low quality of teaching and non-teaching staff.

Unlike the stakeholders in Pasuran and Probolinggo, most stakeholders in Sumenep were more circumspect and said that the quality of education in the district was fair and the government had made efforts to improve it. However others considered education in Sumenep as low quality and one informant said this applied to both regular schools and *madrasahs*. The finding in Sumenep indicates the different perspectives and levels of awareness among local stakeholders with regard to education issues in their areas.

The interviews revealed the differences in education service delivery between provincial and local governments and the views on quality education at primary and secondary levels. Provincial level stakeholders tended to refer to the quality of higher education (junior and senior secondary school levels) since these schools are under the provincial jurisdiction. They perceived higher education in East Java as limited in terms of access and quality. Many graduates of vocational schools are apparently less competitive on the job market and this is a key concern for provincial stakeholders.

4.2 EDUCATION ISSUES AND CHALLENGES IN EAST JAVA

Local stakeholders acknowledge the variations in education quality across districts in East Java and also the disparities between urban and rural schools as well as regular schools and *madrasahs*. Although East Java is ranked higher than average according to the education development indicators, advances in education cannot continue without addressing these disparities. This section discusses some of the problems and challenges relating to these disparities, particularly in Batu city, Sidoarjo, Pasuruan, Probolinggo and Sumenep.

Literacy and numeracy issues in East Java

Most local stakeholders did not mention literacy and numeracy as issues in primary schools until the interviewers raised the question. Nevertheless the study finds that local stakeholders perceive the problems in literacy and numeracy to different degrees.

Literacy issues

In Sidoarjo and Batu city, local stakeholders considered literacy at a good level among children in the area and especially among children in urban areas. However, children in the rural areas of Sidoarjo and the suburbs in Batu city still face difficulties in reading. In Sidoarjo, local stakeholders were concerned about the low level of reading comprehension among primary school students. Students can read fluently but with limited comprehension. This corresponds with the PRIORITAS evaluation report on literacy issues in East Java that included Sidoarjo and Batu city among their targeted areas (see chapter 3). In addition, literacy levels in Sidoarjo do not reflect a reading culture in the community.

'In my school cluster, there is one school that has many students who cannot read because there is no early childhood education centre or kindergarten (PAUD/TK) in the area. This primary school is

situated in a remote area. It's a fish embankment area. Children in the area are enrolled directly to primary school without any preparation in reading. So they have difficulty in reading and even lack interest in reading ...also they have limited support from their parents in providing reading books' (male focus group discussion participant, Sidoarjo).

Local stakeholders in Pasuruan do not consider literacy a major problem in the western area of the district but low literacy levels prevail in the eastern and other rural areas. According to informants, parents in the eastern areas tend to have little education and poor economic status that limits the support they can give their children, for example: by enrolling them at early childhood education centres or kindergartens; providing reading material and assisting them with their studies at home. Furthermore, Madurese children in the eastern areas speak a different mother tongue, creating challenges in class, especially in the early grades. Early childhood education centres or kindergartens are not always accessible in the rural areas and this has a long-term impact on the children's literacy skills. The availability and quality of libraries varies from school to school due to limited budgets for infrastructure and facilities. This happens in regular schools and *madrasahs*. Schools also lack the specialist staff, such as librarians, to manage the library and help students benefit from it. Although training for librarians is available through the Open University in Pasuruan, principals lack the funds to recruit the graduates to support the school library program.

In Probolinggo and Sumenep, students' literacy levels are generally low. Local stakeholders reported that the levels of literacy and numeracy in Probolinggo are below the provincial average. The high retention rates in the early grades in primary school and low interest in reading indicate problems with literacy in the area. Similarly, an informant in Sumenep mentioned the recent survey with INOVASI that found almost 50 per cent of students could not read fluently. Informants in Probolinggo mentioned some challenges including lack of facilities and staff issues. The government has tried to build or renovate libraries to support literacy in schools but budget constraints force local governments to focus on classrooms rather than libraries. Many libraries are not functioning well because they are managed by unqualified staff and the book collections are limited. Teachers also lack skills in teaching reading and numeracy in the early grades. Stakeholders also cited the limited support from parents for children reading at home that contributes to literacy problems.

'We received the multi-grade program (from INOVASI) but our literacy levels are also very low. In my school, almost half the students are retained in the first grade due to lack of literacy. They mostly never enrol in early childhood education centres. Literacy and numeracy remain a problem in Sukapura and generally in Probolinggo' (male focus group discussion participant, Sukapura, Probolinggo).

'Our students in first grade cannot even count from 1 to 20. Out of 30 students, 15 of them can read and 15 cannot' (male focus group discussion participant, group A, Sumenep).

The findings clearly show variations in the level of literacy across areas in East Java. Stakeholders at the provincial level also mentioned variations in literacy levels and disparities between urban and rural areas. Many stakeholders emphasised the lack of infrastructure and facilities, the low enrolment in early childhood education and parents' economic status and education background as factors affecting literacy levels. Only a few respondents raised the issue of the quality of teachers as an important factor in improving literacy levels. However, the literature shows that teachers have the most impact on students' achievement in literacy, particularly at primary school (Subedi and Howard, 2017). These studies suggest that effective teaching methods and teaching experience are more important than the teachers' education level in improving students' reading skills. Rand Corporation (2012) points out that an effective teacher: 'applies effective teaching methods which can be inferred from teachers' knowledge or skills; teaching practice in the classroom, including lesson plans; teachers' participation in professional development, committees or mentoring; and from input provided by peers or administrators.'

At the higher levels, government tends to emphasise national exam results as the measure of education quality so decision makers at these levels are less likely to monitor literacy and numeracy skills.

‘Actually, we monitor (literacy progress) through school supervisors. But the expected results based on national government are results of school exams, end-of-school exams and national exams. It seems that those exams are the main focus, no question whether or not children have to master basic competencies. If the requirement is merely exams, both local government and headmasters may merely focus on the results of graduates’ (male government official interviewee, Pasuruan).

Numeracy issues

Although numeracy awareness tends to have a lower profile than literacy, stakeholders in both Pasuruan and Sidoarjo recognised the need to improve students’ numeracy skills and particularly their ability to apply these skills in a real-life context. Numeracy achievement varies across schools in Sidoarjo but students are generally considered less interested in mathematics or afraid to tackle the subject. This mindset creates a barrier to developing numeracy skills. Another factor that can contribute to the numeracy problem is if the teachers do not have the pedagogical skills to teach numeracy with fun and creativity. Teachers need the knowledge, strategies, approaches and effective teaching methods to teach numeracy in the early grades and lay the foundation for mathematics at the higher levels.

‘For numeracy, children only recite units of measure (scale) in mathematics but they do not understand the concept. If you ask them to calculate a floor area, they know the answer but they don’t know how many tiles are needed (to cover the floor area). They know one quintal is equal to certain kilograms. But, if they are asked to scale something, they cannot do it’ (Male principal of a madrasah, Sidoarjo).

In Pasuruan, numeracy levels are low among primary school children according to the stakeholders. Students have difficulties in understanding and constructing mathematical concepts when working with story problems. This means that language barriers and students’ reading skills also affect their understanding in numeracy.

Based on the findings, a priority for INOVASI is to ensure teachers have the skills and knowledge to effectively develop children’s literacy and numeracy skills. At the macro level, advocating that local and national education and religious affairs offices continuously monitor and measure progress in literacy and numeracy will raise awareness and generate interest in improving students’ skills.

Teacher shortages and distribution

The shortage of permanent teachers occurs in all targeted areas in East Java as a result of the moratorium on hiring new civil servants announced in 2015 and the annual loss of teachers due to retirement. However, all local governments recruit contract teachers to fill the gaps in the education system in East Java. As a result, the local education office balance sheet for 2018 shows that the student–teacher ratios in the targeted areas in East Java met the national education standard with a ratio of 1:32 as shown in

Table 3.9. This means that all five areas have sufficient numbers of teachers either as permanent civil servants (PNS) or contract teachers.

Despite the statistics, this study found that shortages of teachers persist in Probolinggo and Sumenep due to education management issues and limited local government funds for new contract teachers. Probolinggo has numerous schools with small numbers of students and this has implications for distribution and funding. As a result, some schools are short of teachers. The Probolinggo district government has recruited a number of non-permanent teachers based on their financial capacity but the problem is not fully resolved. This issue resulted in the multi-grade teaching pilot that INOVASI is implementing in Probolinggo.

Sumenep also has a lack of teachers for the same reasons. School institutions in Sumenep share a small student population and this has an impact on the schools operational funds they receive. According to focus group discussions with education practitioners in Sumenep, this creates competition for students between the regular schools and *madrasahs* with schools trying to persuade parents to enrol their children. In some cases, representatives from the schools use inappropriate methods to persuade parents, for example by providing school uniforms or even money. People in the area even use the phrase '*jual beli murid*' meaning 'selling and buying students' to describe the situation. Local stakeholders highlighted the lack of verification and monitoring in using the schools' operational funds that allows schools to use these tactics. Furthermore, having small numbers of students leads to low teacher–student ratios that affects recruitment and placement, as well as the incentive for certified teachers. The Sumenep district government addressed the issue of low teacher–student ratios by merging some regular schools to improve the funding situation but the issue is not fully resolved.

Quality of teachers across the targeted areas

Local stakeholders in East Java are increasingly focusing on the quality of teachers, considering their vital role in improving the quality of education overall. They raised various issues that have an impact on the quality of teachers and these are discussed in this section.

Differences in teachers' qualifications

According to Law No 14 of 2005 on teachers, the general requirements for becoming a teacher in Indonesia are: (1) obtaining an educational qualification which is a minimum standard of a four-year university degree or four-year diploma program; (2) demonstrating teaching competencies in four areas – pedagogical, personal, social and professional; and (3) obtaining teachers' certification.

However, local stakeholders in Probolinggo realise that many teachers in the district do not fully comply with this law. There are about 300 permanent teachers and 314 non-permanent teachers who have only completed a two-year diploma. The teachers' low qualifications potentially affect education quality, as well as the teachers' prospects for promotion to certified or permanent teacher status. Stakeholders in Sumenep did not mention this issue although the local education office balance sheet for 2018 (Table 3.11) shows that proportion of primary teachers with a four-year qualification is the lowest compared to the other four districts.

Schools under the *Muhammadiyah* foundation also employ teachers whose qualifications do not meet the national standards. Therefore, the foundation plans to institute a minimum of 80 per cent of teachers with the requisite professional background to be employed in each school in the next few years.

However, some informants in Batu city raised doubts that teachers' qualifications necessarily represent teacher quality since many teachers attain their qualifications from universities with low-grade accreditation or through distance learning programs. They suggested that improving qualifications does not always correlate with improving professional competence. In certain cases, the paper qualification is attained merely to meet the government requirement.

Teachers' mindsets influence professional learning

Teachers in East Java are becoming more interested in developing their professional competencies by participating in the many training programs run by local stakeholders. These programs are considered effective and most participants go on to introduce new teaching methods in their classrooms and share their knowledge with other teachers through teachers' working groups. However, local stakeholders also reported that some teachers have fixed mindsets that can nullify the training results. Despite local stakeholders' efforts to provide training and improve incentives for certified teachers, some teachers have no interest in upgrading their professional knowledge and skills or maximising learning outcomes. These teachers are unlikely to improve their teaching methods and may attend the training simply to increase their credit points for promotion.

'Not all teachers want to be up-to-date with developments... such technology and learning methods. As far as I know, there are many regular training sessions for teachers. But

teachers need to be willing. They need to be motivated to change. Some teachers want to improve but other teachers will never change' (male informant interview, Batu city).

'Although some teachers might have attained a bachelors, masters or even a PhD, they cannot make a change in their schools. This indicates a problem with their mindset. Competent teachers with the right mindset are usually creative and innovative but these teachers are not evenly distributed' (male informant interview, provincial level).

This study suggests that teachers' fixed mindsets affect the quality of teaching across East Java. However, the reason for this phenomenon is harder to identify. Stakeholders have no easy answer as to how we can change teachers' mindsets, except through training. This leaves room for further research into the underlying factors influencing teachers' mindsets and their effects on professional learning and education outcomes in INOVASI's targeted areas.

Variations in teachers' pedagogical and professional competencies

This study found different levels of pedagogical skills among teachers in the targeted areas. Stakeholders in each district named some high-performing teachers who use innovative teaching methods. Their skills have been acknowledged at local, provincial and even national levels as well as through competitions and awards. However, stakeholders also raised concerns about the pedagogical competencies of some other teachers. They described teachers who still use conventional learning methods where the teacher is the source of all learning. They are unlikely to use learning media or prepare learning tools and focus on administrative matters related to their certification incentives rather than preparing lesson plans. In Sumenep and Pasuruan, informants reported that some teachers cannot develop lesson plans independently, so they copy other teachers' plans.

"(In developing lesson plans), we can see a problem with teachers' competency in literacy, I mean literacy in writing, reading, knowledge and the ability to express their thoughts (ideas) are weak' (male informant interview, Pasuruan).

Stakeholders suggested some reasons for the varying levels of competence among teachers:

- (1) Fixed mindsets in some teachers making them less willing to upgrade and improve their teaching methods;
- (2) Weak leadership from school principals and lack of supervision when teachers draw up their lesson plans;
- (3) Lack of funding that affects the schools' capacity to provide facilities and support for teachers in developing learning tools;
- (4) Limited computer literacy that hinders teachers wanting to search for new knowledge and learning methods;
- (5) Lack of objective and constructive evaluations of teachers' performance;
- (6) Not all teachers have the same opportunities to upgrade their professional skills through the training courses run by local stakeholders

In the regular primary school context, the district education offices face financial constraints resulting in limited quotas of teachers who can attend workshops and training conducted by various institutions. Trained teachers are expected to disseminate what they learned to other teachers through teachers' working groups. However, stakeholders identified weaknesses in this strategy due to the teachers' different abilities in transferring this knowledge. The information passed on may be distorted or incomplete, contributing to the inequalities in teachers' competency levels.

This issue was also raised by stakeholders from *madrasah* institutions, particularly private *madrasahs*. *Madrasahs* have to finance their training courses for teachers themselves unlike the regular schools that receive financial support from the government for numerous training sessions conducted by the district or the national government. In addition, the different jurisdictions of MoEC and MoRA in managing education

service delivery, as well as the different education funding schemes between regular schools and *madrasahs* compound the disparities.

In the context of *madrasahs*, stakeholders suggested that the low salaries teachers receive in many *madrasahs* impacts on their focus on teaching. Some teachers even have to have second jobs to earn additional income.

Overall the study found that teachers' qualifications, mindsets and competencies are related to the disparities in education quality in East Java. Stakeholders in all study areas emphasised the need to upgrade teachers' competencies continually. They suggested strengthening teachers' pedagogical skills and their understanding of the psychological aspects of their students so they can identify and develop children's potential, use learning media and develop appropriate teaching tools.

Implementing curriculum 2013

The curriculum determines not only what is taught but also how knowledge, values and skills are transmitted to the students. It provides the guiding principles for developing teaching and learning methods. The primary schools and *madrasahs* both use the 2013 national curriculum, especially for the early grade classes. However stakeholders identified some challenges in implementing this curriculum:

- (1) Despite government's efforts, teachers at both regular schools and *madrasahs* are not ready to implement the curriculum due to the lack of socialisation and training. The changes in the Indonesian curriculum means teachers have frequently had to adapt materials, shift their perspectives and change their teaching methods. The 2013 curriculum uses a thematic approach that teachers find difficult to implement in the early grades.
- (2) Changes in the methods of assessing students' learning outcomes in the curriculum have created confusion among teachers.
- (3) The textbooks and student handbooks available to support the 2013 curriculum are limited.

School principal quality

Variations in the quality of education across districts in East Java are also evident between individual schools. Some schools are high performing compared to others and this is reflected in the exam results or through competitions for students and teachers at district and national levels. High performing teachers also cluster in certain schools. Stakeholders suggest that these schools are likely to be led by school principals with effective leadership and supervision skills. First, these principals are likely to be innovative leaders who support their teachers and also promote innovation and creativity in learning in their schools. Second, these principals are usually disciplined and consistently supervise their teachers in improving the learning process. School principals play an important role in delivering a quality education service in schools.

However, stakeholders identified some issues regarding school principals: (1) Principals who lack effective leadership and supervision skills are ineffective, resulting in a poor quality of education. Principals who do not encourage innovation or new initiatives make it harder for teachers to stay motivated and improve their performance. These principals may lack understanding of how to measure teachers' performance and provide objective evaluation and feedback. (2) Some school principals perform their roles as administrators and supervisors disproportionately. They focus on administrative matters, such as the schools' operational funds and infrastructure projects, but neglect their leadership roles. These principals appear unconcerned with pedagogical issues and this lowers the quality of education in their schools. Some informants suggested that hiring school administrators would resolve this issue and leave the principals free to carry out their supervisory and leadership roles.

In Sidoarjo, some school principals are considered less competent than their teachers. Similarly, stakeholders in Pasuruan and Sumenep said many principals at *madrasahs* have limited qualifications and

lack competencies in management and supervision due to weak recruitment processes. In private *madrasahs*, principals are recruited by the school founders and the process is often characterised by nepotism and politics. In Pasuruan and Sumenep, the independent status of the private *madrasahs* makes it difficult for the MoRA office to intervene and suggest ways to improve education quality.

'School principals need insight. Teachers have been running (progressing) while school principals have remained static. It is a public secret that in this district the competency of school principals is often below that of the teachers. All tasks related to technology have to be handled by the teachers' (male stakeholder interview, Sidoarjo).

In Sumenep, stakeholders said that people were reluctant to apply for principals' positions at primary school level because they are daunted by the responsibilities and duties the job entails. Some also consider the rewards as disproportionate. This may contribute to the lack of quality school principals in the district.

Similar issues were raised about the principals of the private *madrasahs* who apparently focus on school infrastructure rather than education quality. There is a perception that good infrastructure represents a good *madrasah* and will therefore attract high enrolment. The school principals also prefer to be autonomous and resist offers of help in improving education quality from other stakeholders such as MoRA and Ma'arif.

Recognising the vital role that principals play in quality education, stakeholders suggested they should participate in any teacher training courses or new initiatives in schools. This would keep the principals informed of any new approaches and ensure they are involved and committed to implementing them. They would also be in a better position to mentor and monitor their teachers throughout this process.

Disparities in school infrastructure and facilities

Most interviewees believe that the infrastructure and facilities available in schools affect the learning process and education outcomes. This study found that these were not an issue in the regular primary schools in Sidoarjo, Pasuruan and Batu city. In contrast, stakeholders concerned with *madrasahs* in these three districts raised the issue of inadequate infrastructure and facilities, especially at private *madrasahs*. For Probolinggo and Sumenep, infrastructure is a persistent issue in regular primary schools and *madrasahs* due to the limited local government funds available. This means that school infrastructure remains a major concern and expense in the districts' development planning every year.

Local government authority and financial constraints both have implications for *madrasahs* and result in limited support from the government. *Madrasahs* come under MoRA and they are still centrally managed. To support infrastructure projects in *madrasahs*, local governments in each area have to allocate block grants funded from the district planning budget. As the local governments are responsible for regular primary schools, they have to prioritise maintaining and building infrastructure and providing facilities in these schools. As a result, any plans to improve the infrastructure and facilities in *madrasahs* depends on government priorities and budget allocations. For private *madrasahs*, any infrastructure and facilities provided depends on the financial capacity of the *madrasah* itself or on the school founders.

In addition, this study revealed that up-to-date, comprehensive data on the conditions in schools with regard to infrastructure and facilities are not necessarily available making it difficult for local governments to draw up realistic plans. Local stakeholders reported that the information in the basic education data (Dapodik) lacks detail on infrastructure. In Sidoarjo, the local government has developed a separate database known as SIKEB (*sistem informasi kerusakan bangunan*) to monitor the state of infrastructure and facilities. This system more effectively supports the government planning process to maintain school infrastructure.

Characteristics of the learners

This study identified some learner issues that have the potential to affect education quality, as follows.

Starting grade one with different levels of competence in literacy and numeracy

While the gross enrolment rate in early childhood education centres (PAUD) or kindergartens in East Java is above 95 per cent (Table 3.4) the data also implies that some children are left out. According to the stakeholders, these centres are not always easily accessible in the rural areas. Also, low-income families find it more difficult to send their children to early childhood education due to the costs involved and the logistics of getting them there. Therefore, these children have less exposure to the alphabet and numbers before they start primary school. This creates disparities in education between urban and rural areas and especially for children in remote areas. These children do not achieve the same levels in literacy and numeracy as their counterparts who went to kindergartens or early childhood education centres.

This situation is also reflected in children's levels of competency in reading and writing when they start grade one. Differences emerge even among children who have enrolled in early childhood education as some of these children can read and write while others cannot. This is due to different perceptions and expectations of early childhood education in the targeted areas that lead to different standards or priorities at particular centres. Many people expect children to be able to read and write when they start primary school but teaching basic literacy is not part of the brief for early childhood education. The focus at this early stage is on developing the children's characters and social skills. MoEC even issued Minister of Education decree No 51 of 2018 on the school enrolment zoning system policy for 2019 that also prohibits literacy and numeracy tests for children enrolling in primary school. Nevertheless the basic principles and delivery of early childhood education services still need to be regulated and standardised.

Language barriers in Pasuruan and Probolinggo

Stakeholders reported that there are language barriers among early grade students in certain areas in Pasuruan, particularly in Lekok, Tukur. In the rural context of Pasuruan, most children do not understand the language of instruction and this creates challenges for the teachers in teaching literacy and numeracy. Teachers have to use the students' mother tongue as well as Bahasa Indonesia to help them understand the material. Children living in the coastal area of Probolinggo also have language barriers.

'In addition to the Indonesian language, we use local languages (to help students in class). For example, we use the Madura language to explain subtraction (in mathematics), so the students can understand' (male madrasah teacher, Pasuruan).

'In the coastal areas, most children use their native languages. Therefore, this is a barrier to the learning process. Teachers should be able to help students understand the learning materials' (male participant in focus group discussion, Probolinggo).

Low motivation to attend school

Children from low-income families are more likely to be discouraged from going to school because of their concern about their families' needs. This results in children dropping out of school to start work. This finding corresponds with the explanation for low school enrolment rates discussed under section 3.1. This phenomenon may also contribute to lower participation rates at the senior secondary school level. A Sidoarjo government official said that the local government provides educational support for children from poor families through the family hope program which is a conditional cash transfer scheme but the impact of this intervention also depends on whether parents encourage their children to go to school. Stakeholders emphasised that lack of support from the community affects children's motivation to study.

Child labour

Child labour is regarded as an issue in the rural areas of Probolinggo and Sumenep. In these two districts, children are likely to work on farms or help parents in other economic activities. During the tobacco harvest in Probolinggo, children are likely to be absent from school so they can work on the farms. Studies on child labour on tobacco farms in Indonesia, including in Probolinggo, have found that it has an impact on

children's education because the children work long hours at harvest time and some are forced to drop out of school (Human Rights Watch, 2016). The communities' long tradition of involving children in agricultural activities underpins the child labour issue on tobacco farms. People see it as part of their upbringing to develop their independence and sense of responsibility in helping their parents (Human Rights Watch, 2016; Karnaji and Mas'udah, 2013). Similarly, parents in Sumenep who work outside their immediate areas are likely to ask their children to help with their work for some days or even a month at certain times of the year. Many industrial businesses in Sumenep also attract boys and girls to work instead of finishing senior secondary school or pursuing higher levels of education.

'For example, there is seasonal child labour. During the tobacco season, children could be out of school for many days, even for up to 10 days. But these children have still not dropped out of school' (focus group discussion participant, Probolinggo).

Parental care

Teachers identified parental care as an issue that affects children's performance at school. Children who are not living with their parents for various reasons, tend to have difficulties in learning at school and this leads to limited learning outcomes. Their parents may be working in other areas or as migrant workers or they could be divorced but the children often then live with their grandmothers. The stakeholders also mentioned that the lack of parents' attention and support for their children in learning at home contributes to the children's low performance at school.

Education accessibility

One objective of this study is to establish the situation of universal access to education for all children in East Java, regardless of gender, social class, ethnicity, background or disabilities. The findings on this issue are discussed in this section.

Equal access for boys and girls only at primary level

This study found that stakeholders have different levels of awareness about gender disparities in access to education in East Java. Gender disparity is not considered a major issue in Sidoarjo and Batu city as they have the lowest gender gap in access to education, as discussed in section 3.1. However, stakeholders in Probolinggo were aware that girls are likely to be disadvantaged in accessing higher education. Most stakeholders in Pasuruan and Sumenep were not concerned about the gender issue as they believe boys and girls have equal access to education even at the higher education levels. These perceptions are incorrect because the school participation rates (Table 3.4) show clear gender disparities at junior secondary school level and above. The enrolment rate is only at the same level for boys and girls at the primary level (see chapter 3).

Child marriage and economic pressures underpin the gender disparities in education in Pasuruan, Probolinggo and Sumenep. Probolinggo and Sumenep are recognised as districts in East Java where child marriage is prevalent, at 35 per cent and 32 per cent of adolescent girls respectively (BPS, 2016). Stakeholders in Pasuruan and Probolinggo reported that girls are married early to reduce the economic burden on families. In Probolinggo, this practice prevails in Sukapura sub-district, for example in Curahwangi village. Boys usually marry at the age of 17 or 18 but girls tend to marry earlier. Local leaders are concerned about the issue and Ngadisari village in Sukapura sub-district has enacted a local regulation on child marriage. The regulation addresses the issue in that particular village context but this best practice does not seem to be disseminated to other areas in Probolinggo.

'There is a tradition that a baby can be engaged in Pakuniran village...Between 1998 and 2016...I found that girls could be married even though they were still school-aged children (in grade six at primary school). But the marriage ceremonies are not held in the local religious affairs office. Although the tradition has been diminishing over time, girls still get

married at junior secondary school age which is still under age. Those children usually stop schooling' (focus group discussion participant, group B, Probolinggo).

Similarly, some children in village areas in Sumenep become engaged (in the *khitbah* ceremony in Maduranese tradition)(Ulfah, 2016) although they are still school age (junior secondary level). The recent data shows that out of the average 9,000 marriages per year in Sumenep, about 60 per cent are child marriages (Hidayati, 2018). The Sumenep district government has tried to prevent child marriage by: allocating IDR15 billion to an economic empowerment program for young people (Busyro Karim, 2019); educating the community to prevent child marriages; and implementing the *Generasi Berencana* (GenRe) program (Sumenep district, 2018). The GenRe program is conducted by the women's empowerment and child protection services and involves adolescents in educating their peers on planning for their future, including completing higher education and preventing child marriages. Sumenep received an award from the Ministry of Women's Empowerment and Child Protection in 2018 for its efforts to reduce child marriages. Nevertheless, INOVASI needs to be concerned about the child marriage issue in the targeted areas.

In terms of equality at school, the respondents said that boys and girls are generally treated equally in class and at school. However, most participants emphasised that girls are likely to outperform the boys in school as they are generally more persevering.

Creating equal access to education for children with special needs or disabilities

All the respondents in East Java were concerned about equal access to education for children with disabilities or special needs. The government has provided special schools for these children but the distances and costs involved sometimes discourage parents from enrolling their children in these schools. Therefore, the provincial government has also endeavoured to improve access and promote inclusive education through the East Java governor regulation No 6 of 2011 concerning inclusive education. The government is planning to declare East Java an inclusive province by encouraging local governments to declare themselves as inclusive districts.

In total, 17 municipalities or districts that have been declared inclusive, including Batu city, Sidoarjo and Probolinggo districts (East Java provincial government, 2017). The Pasuruan and Sumenep district governments have not yet launched themselves as inclusive districts. This reflects the different levels of progress on inclusive education across East Java province. This study also revealed some challenges in implementing inclusive education in the INOVASI targeted areas.

The Sidoarjo government has made significant progress in implementing inclusive education through local regulation No 5 of 2006 and district head regulation No 13 of 2008, as well as an inclusive education program. The district education office has a specific technical implementation unit to improve services for children with special needs. There are 174 inclusive schools in the district. Sidoarjo received an Inclusive Education Award from MoEC in 2013 in recognition of this progress. However, local stakeholders observed that inclusive education has not been implemented in all schools due to the lack of knowledge, capacity, facilities and skilled teachers. Nevertheless, the district government is gradually increasing the number of inclusive schools and expanding their capacity to cater for children with severe disabilities. Local stakeholders said principals and teachers need to be more aware of the issues involved and have ongoing training to implement inclusive education successfully. Parents also create some challenges. Some parents are resistant to the idea of inclusive education because they feel ashamed if their children are considered slow learners. Some parents leave their children's education entirely up to teachers or schools offering minimal support for their children with special needs to learn at home. Some parents also lack the knowledge and skills to help their children to learn and confuse their children with different methods and advice. This can sometimes offset the teachers' efforts at school.

A study by Sulistyadi (2014) on inclusive education in Sidoarjo noted areas for improvement, including the knowledge and competencies of both teachers and non-teaching staff to implement inclusive education. Not all shadow teachers are qualified in special education, budgets to implement the program are limited in all regular schools and schools lack the facilities, like resources and treatment rooms, to implement inclusive education effectively.

Probolinggo and Batu city governments have focused on inclusive education. They have established inclusive education at many schools from primary to senior secondary levels. Probolinggo district has an inclusive working group to support inclusive school development and provides support, such as, hearing aids and glasses for children with hearing and vision problems. In Batu city, inclusive education is considered an effective means of improving education outcomes for children with disabilities. One success story was at Junrejo 1 primary school where teachers' methods in assisting students with special needs and managing inclusive classrooms have had a positive impact on their performance at school (Nurfitrani, 2016; Hidayat 2016). However, inclusive education has not been implemented in all schools and local stakeholders raised concerns about insufficient numbers of shadow teachers and limited specialist knowledge and skills. Other challenges cited in Probolinggo and Batu city included lack of supervision and support as well as inadequate infrastructure and facilities.

In Pasuruan and Sumenep, some schools have been appointed as inclusive schools but have not yet fully implemented the program. In these districts the initiative also does not have sufficient support, including shadow teachers, infrastructure, facilities and appropriate adjustments in the curriculum. Awareness about inclusive education remains low among education practitioners. Pasuruan has no specific budget and program to leverage inclusive education but the government is planning to allocate a budget to improve inclusive education in 2019. In Sumenep, the inclusive education program is still at the early stages and teachers are currently being trained.

In Batu city and Sumenep, *madrasahs* have not focused on inclusive education because MoRA has not issued any regulations or policies to guide or support the program and there is no budget allocation for it. Furthermore the limited supervision from the religious affairs offices means that few *madrasahs* would be ready to implement the inclusive model.

A study in Surabaya city on the implementation of the East Java governor's regulation No 6 of 2011 confirmed the challenges pointed out by stakeholders from Batu city, Sidoarjo, Pasuruan, Probolinggo and Sumenep. The classic problems cited in the study included: the lack of qualified teachers for children with special needs (shadow teachers); lack of knowledge about children with special needs among teachers; no professional psychologists or counsellors available to assist the children; no space available to treat children needing special care; and limited awareness on inclusive education in the community (Sudarto, 2016).

Geographical barriers affecting education quality in Sidoarjo, Sumenep and Probolinggo

Stakeholders in Sumenep raised the issue of education quality for islanders in the district. Students living in some areas on the islands come to school by boat and their trip can be affected by the weather which means they have to miss school. Moreover, teachers are generally from the mainland and do not always stay on the islands during the school period. This means that teachers may often arrive late or end up missing school. This has an impact on the quality of education on the islands. Despite the incentives local government provides for teachers in these areas, teachers are reluctant to stay on the islands.

Teachers (at schools) on the islands mainly come from the mainland. If they return to Sumenep (mainland), they may stay there a month and yet they spend only a week on the islands. The school has to find another teacher to teach their classes (male focus group discussion participant, group A, Sumenep).

Table 4.13: Geographical features of several sub-districts and number of students in Sumenep district

Sub-district	Inhabited islands	Distance from the capital regency (km) and additional time to cross the sea	Number of students					
			SD	MI	SMP	MT	SMA	MA
Giligenting	3	28 kms and additional ± 1 hour	1,259	1,294	401	836	68	374
Talango	2	14 kms and additional ± 5 minute	2,136	1,291	630	539	192	-
Dungkek	1	30.5 kms	1,571	1,089	441	725	207	216
Nonggunong	3	11.01 kms and additional ± 2.5 hours	716	249	276	239	90	-
Raas	9	33 kms and additional ± 5 hours	1,773	2,201	442	1,232	227	-
Sapeken	21	13 kms and additional ± 12 hours	4,859	3,762	1,232	2,064	612	307
Arjasa	3	21 kms and additional ± 10 hours	5,508	2,433	1,747	1,871	1,408	295
Kangayan	3	67 kms and additional ± 10 hours	1,809	1,143	686	661	392	419
Masalembu	3	23 km and additional ± 12 hours	1,154	1,443	516	793	556	266

Source: BPS, 2018

Notes: SD = primary schools; MI = primary *madrasahs*; SMP = junior secondary school; MT = junior secondary *madrasah*; SMA= senior secondary school; MA = senior secondary *madrasahs*

In Sidoarjo, Ketingan island and Tambakan areas are difficult to access and this has an impact on the education process because many children are absent from school during the rainy season. Children living in mountainous areas of Probolinggo also face challenges getting to school but the local government has provided a transport fund to try to keep children in school. In 2019, the government is even planning to provide transport such as motorcycles to drive the students to and from schools, particularly to improve access to junior secondary and senior secondary schools.

Education governance

The division of education between the Ministry of Education and Culture (MoEC) for regular schools and the Ministry of Religious Affairs (MoRA) for *madrasahs* has created several challenges in managing the education system.

The first issue is the unbalanced distribution of schools between the two ministries (see Table 3.8). East Java has a high number of *madrasahs* resulting in a heavy load for MoRA officers in the *madrasah* education division at the district level, especially in areas with the most *madrasahs*. However, this extra responsibility for the MoRA offices is not reflected in the capacity of the institution in terms of structure and budget.

Secondly, the two-system approach to education also has an impact on funding and programs. The district education offices are considered to have the capacity to provide school infrastructure and facilities, and to develop programs to improve the quality of education. In contrast, the religious affairs district offices' budgets and programs are totally dependent on the MoRA national office. Funds to support *madrasahs* in East Java are considered insufficient, especially with the small, private *madrasahs* in the province. The different capacity to fund education in the two systems creates disparities in the opportunities for teachers in *madrasahs* and regular schools. Under the jurisdiction of the religious affairs offices, there is limited support

for the private *madrasahs* and this widens the gaps in education quality between small private *madrasahs* and other schools.

'Public schools have sufficient infrastructure and facilities, and teachers are frequently upgraded. The schools are more advantaged. Though some madrasahs are outperforming public schools, the number of madrasahs is quite small. In fact, the number of small private madrasahs that need most help are largely in Pasuruan. These madrasahs really need financial support, infrastructure and facilities, and upgrading for their teachers' (male informant interview, Pasuruan).

Stakeholders at provincial level are particularly concerned about the impact of Law No 23 of 2014 on local government. The law outlines the transfer of authority over secondary schools and special schools (for children with disabilities or special needs) from district to provincial governments. The shift is perceived as placing a high burden on provincial governments to take on this new authority. As the quality of inputs at primary school level will impact on the quality of secondary education, the regulation is thought to limit the provincial government's role in ensuring the quality of primary education. Similarly, local stakeholders at district level believe the law has reduced district governments' opportunity to improve gross and net enrolment rates at secondary school that contribute to their performance in the district's human development index. Some districts with enough local government funding would prefer to keep senior secondary school management under their jurisdiction.

The moratorium on hiring new civil servants has encouraged local governments to recruit non-permanent teachers to fill the gaps in the education system. However, these teachers are paid from the local government funds (APBD) because salaries are part of the direct expenditure in education, resulting in a small proportion of education funding left to improve quality. If teachers all had permanent civil servant status, their salaries would be paid by the national government from the national budget. Therefore local governments are advocating national government to increase the quota of permanent teachers in the next recruitment process.

At school level, principals and education committees face challenges in improving education quality due to limited financial resources and low community support for funding such programs. Stakeholders in all the study areas highlighted misconceptions about the nine-year free education the government offers that results in parents and communities' low participation in support for education, especially in public schools and *madrasahs*. This means that schools depend heavily on the schools' operational funds (BOS) for their operational costs but these funds are not always sufficient to fund improvements in the learning process.

Community context factors

This section looks at the factors that emerged related to the community contexts that characterise education in East Java.

Parents' socioeconomic status and values in relation to education

The stakeholders in this study recognise the important role that parents can play in improving education quality. However, parents' socioeconomic status is said to have an impact on children's access to education and their performance at school. Parents with high incomes and education are more likely to: enrol their children in early childhood education centres or kindergartens; provide additional activities outside school to boost their children's progress; and to encourage their children to pursue higher education. Meanwhile parents with low incomes and education levels have financial constraints that limit the support they can give for their children's education. They prefer their children to work and be independent rather than pursue higher levels of education. Thus the different education levels and economic status of parents contribute to the disparities in education quality in East Java.

Communities with strong Islamic values

According to the history, some areas in East Java are acknowledged as the gateway of the spread of Islam in Indonesia. East Java is also the burial place for five of the nine pioneer preachers of Islam in Indonesia (Wali Songo). This provides the context for the strong influence of Islam in the education system in East Java and explains why the *madrasahs* play such an important role in the province. There are more *madrasahs* in East Java than in any other province in Indonesia. With these strong Islamic values underlying the community, many parents prefer to enrol their children in *madrasahs* or other Islamic institutions.

Priority interventions to improve education quality

We asked respondents in this study to suggest three main issues that need to be addressed to improve the quality of education in each district. Their responses, summarised in Table 4.14, show a consensus that improving the quality of teachers is the top priority since they are key actors in this process. This concern about teacher quality aligns with INOVASI's own area of interest.

Table 4.14: Top three priorities in interventions to improve education quality in East Java, according to respondents

N o	Province	Batu city	Sidoarjo	Pasuruan	Probolinggo	Sumenep
1	Addressing disparities in education	Improve teacher quality: <ul style="list-style-type: none"> Shift fixed mindsets so teachers will continually learn and upgrade their skills Develop teachers' pedagogical skills Improve evaluation methods to monitor teachers' performance 	<ul style="list-style-type: none"> Address disparities in education quality to improve performance and outcomes 	Improve teacher quality: <ul style="list-style-type: none"> Shift mindsets so teachers will continually learn and upgrade their skills Develop teachers' pedagogical skills 	<ul style="list-style-type: none"> Improve access to education, as well as facilities and infrastructure 	Teachers: <ul style="list-style-type: none"> Develop teachers pedagogical skills Encourage innovation in literacy teaching
2	Improve gross and net enrolment and education quality at senior secondary school	Promote parents' participation in supporting their children to study at home	Improve teachers' competencies continually and promote contract teachers to permanent teacher status	Improve school principals: <ul style="list-style-type: none"> Develop their skills to supervise to teachers and advise on pedagogy Develop their managerial skills 	Improve teachers' competencies continually and promote contract teachers to permanent teacher status	Improve facilities and infrastructure
3	Improve teacher	Improve facilities and infrastructure in	Improve school principals' professional	Regular schools: Promote community	Encourage the participation of communities and the	Encourage the participation of communities in

	quality	<i>madrasahs</i>	competence	participation	private sector to support education	education
			Madrasahs: Improve facilities and infrastructure, and provide additional funding to improve teachers' professional competence	Madrasahs: Increase budget allocations to provide infrastructure and facilities and to support teacher training for both public and private <i>madrasah</i> teachers		

Discussion

The study findings suggest there are disparities in the quality of education across East Java. These relate to variations in input, processes, education governance and community contexts. Various elements contribute to the differences in performance at the school level: the number of teachers; teachers' qualifications, experience and competencies; school principals' professional competencies; and the quality of infrastructure and facilities. At national level, different jurisdictions and funding schemes between MoEC and MoRA result in differences in the levels of support from government between regular schools and *madrasahs*. Gender, disability and parents' socioeconomic status and role in their children's education also contribute to disparities in access to higher education and in learning outcomes. This finding corresponds with a study by Sholikhah *et al.* (2014) that suggests disparities in education in East Java stem from differences in budget allocations for education, gender-related gaps in accessing education and family spending on education.

Issues in literacy and numeracy also vary across East Java. Stakeholders in Batu city, Sidoarjo and Pasuruan are concerned by students' lack of reading comprehension and the limited reading culture in schools and communities. Meanwhile, stakeholders in Probolinggo and Sumenep consider students' fluency and comprehension in reading remain a problem. In Sidoarjo, stakeholders highlight the need to improve numeracy skills in the district. Literacy and numeracy issues are recognised as obstacles to learning for students that can result in slow progress towards education outcomes.

This study also identified several learning barriers that potentially affect education quality. These barriers include: children starting grade one with different levels of competency in literacy and numeracy; language barriers for children with different mother tongues; child labour; parental issues; and children's motivation to study. These barriers should be considered when developing programs to address education issues in East Java. Programs to improve teachers' capacities, for example, should equip teachers in rural areas to manage the language issue. While programs for grades one to three teachers should also focus on teaching methods for literacy and numeracy.

4.3 LOCAL GOVERNMENT POLICIES AND PROGRAMS TO IMPROVE THE QUALITY OF BASIC EDUCATION

This section elaborates on current actions that local stakeholders are taking to address education issues in East Java and how they are being implemented. The section also suggests future directions for local governments to improve education and learning outcomes in the province.

Local policies on education funding

All local governments have complied with Law No 20 of 2003 on national education and the third constitutional amendment that obligates the government to allocate 20 per cent of its budget expenditure on education. However, most stakeholders admitted that a large portion of the education budget is spent on teachers' salaries, followed by school facilities and infrastructure. Excluding Sidoarjo and Batu city, the other districts have allocated a small proportion of the education budget to support programs to improve education quality, such as teacher training. The districts' different local government funding (APBD) capacities are the underlying reason for the different budget allocations to the education sector.

Considering the high number of *madrasahs* in East Java, the government has an interest in improving the quality of education they offer through specific policies. For example, since 2014, the provincial government has run a support program for non-formal Islamic school (*madrasah diniyah*) and private Islamic school teachers to improve the quality of education in these institutions. Government provides block grants and scholarships for teachers to upgrade their qualifications and competencies. The program also aims to provide schools operational funds (BOSDA) for these non-formal *madrasahs*. The provincial program has implications for the use of block grants from the education budget at district level because the program is expected to be replicated at district level and funded from local government funds. Similarly, to support *madrasahs*, the Pasuruan district government issued a local regulation 2014 concerning education service delivery and district head regulation No 21 of 2016 regarding mandatory non-formal Islamic schools (*madrasah diniyah*). The Pasuruan education office also has a sub-unit for Islamic schools whose role is to deliver operational grants and training for *madrasahs* in the formal and non-formal sectors. This structure has been in place for ten years.

There is some debate about the regulation on non-formal Islamic schools. Some respondents believe that provincial and district governments should focus on improving the quality of the education system under their jurisdiction rather than supporting non-formal Islamic schools that come under the religious affairs office. However, the regulation is considered important to address disparities in quality between non-formal Islamic schools and other formal education. There was no information on whether the program would continue under the governor appointed early in 2019. A change in political agenda may affect the sustainability of the non-formal sector Islamic schools program in following years. However, considering the strong Islamic cultural context in East Java, the new governor may want to continue the program. In Pasuruan, the government has offered to support village governments that implement the program. The 2014 regulation concerning education service delivery and district head regulation No 21 of 2016 regarding mandatory non-formal Islamic schools provide a legal foundation for village governments to allocate village funds to the program. The initiative to use village funds for the program in Pasuruan suggests potential alternative funding to support these institutions in other districts.

The Sidoarjo, Batu and Probolinggo district governments have allocated schools' operational funds (BOSDA) from the local government budgets as additional grants for schools to meet their actual needs.

To provide additional funding for the education sector, Sidoarjo enacted district head regulation No 43 of 2012 concerning the implementation of school-based management from primary to senior secondary school. The regulation provides policy support for schools, especially school committees, to improve community participation in education and ultimately improve education quality. The government also stipulated the implementation of the corporate social responsibility program (CSR) through district head regulation No 2 of 2013, that states that these funds can be used directly to implement programs in the community, including in the education sector. Based on the interviews, the Pasuruan government also plans to issue a regulation regarding the specific contribution of corporate social responsibility funds to support education development in the district.

The findings of this study show that local governments in East Java have allocated the minimum 20 per cent funding to the education sector, stipulated in the national constitution and Law No 20 of 2003 on national education. Improving education quality is also an important agenda for local stakeholders in East Java.

However, there is some debate on whether spending in the education sector, especially on programs to improve education quality, have resulted in better education outcomes and reduced disparities across districts. This suggests the need for cost-effectiveness analyses on education policy in the five districts to gauge the impact of education programs to improve education quality in relation to the costs of these programs.

Policies and programs to improve the competencies of teachers and principals

The Indonesian government has implemented the continuing professional development program based on the Ministry of National Education regulation No 16 of 2007 and regulation No 16 of 2009 on improving teachers' professional competency. The program is expected to help improve education quality in Indonesia. Sidoarjo initiated the continuing professional development program through district head regulation No 38 of 2013. It is conducted through teachers' working groups at cluster level with assistance from school supervisors. The course has a set of basic modules as the core learning program. In Sidoarjo, the continuing professional development activities are funded from local government funds and additional funding from the certified teachers. Through district head regulation No 38 of 2013, the district requires certified teachers to allocate 5 per cent of their certification incentives to continuing professional development. Batu city, Pasuruan and Sumenep also launched continuing professional development programs although at a later stage in 2018.

Local governments have implemented several policies and programs to improve teachers and principals' professional qualities, as presented in Table 4.15.

Table 4.15: Policies and programs to provide sufficient teachers and to improve teacher competencies

Policies, strategies and programs	Pasuruan	Sidoarjo	Probolinggo	Batu	Sumenep
<ul style="list-style-type: none"> Recruit temporary teachers and employees to provide adequate number of teachers. Select temporary teachers to be promoted to permanent teacher status (PNS) 	✓	✓	✓	✓	✓
Allocate budgets and facilitate workshops/training for teachers to improve their pedagogical competencies and implementation of curriculum 2013	✓	✓	✓	✓	✓
Training for school principals includes academic supervision, leadership and management skills	✓	✓	✓	✓	✓
Provide scholarships for principals and teachers to improve their qualifications	✓		✓		
Hold competitions for teachers and principals from local to national levels to encourage them to improve their performance	✓	✓	✓	✓	✓
Training for school supervisors on mentoring, monitoring and evaluating teachers as well as on the education systems in the school	✓	✓	✓		
Allocating budgets through BOS and BOSDA to strengthen working group activities, including for primary teachers, subject teachers and principals	✓	✓	✓	✓	✓

Policies, strategies and programs	Pasuruan	Sidoarjo	Probolinggo	Batu	Sumenep
Implementing continuing professional development for teachers through teachers' working groups The program aims to improve professional competencies, especially through classroom action research	✓	✓		✓	✓
Continuing professional development for school principals through principals' working groups Focusing on developing management and supervisory skills.		✓			
Implementing quality assurance reports These are regular reports on implementing the eight national education standards at school level.			✓		
Training on inclusive education		✓	✓		✓

Stakeholders recognise the district education offices efforts to improve the quality of teachers, principals and supervisors. However, problems arise in equalising the programs and monitoring them effectively for consistency across the continuing professional development programs and the various working groups for teachers, principals and supervisors. Although principals and teachers receive the same capacity building input the results or impact on improving schools could be different. Different outcomes reflect the different levels of commitment and various initiatives that the respective principals or teachers may implement with their new knowledge.

Stakeholders from the *madrasahs* describe the opposite situation with regard to capacity building for principals and teachers under MoRA. They mentioned limited interventions from MoRA to improve the quality of teaching and non-teaching staff. Private *madrasahs* rarely involve staff in capacity building because they have to fund any programs from the schools' own limited funds.

Policies and programs to improve literacy

Local governments have implemented some programs to improve literacy and numeracy in the five study areas in East Java. Firstly, district education offices have adopted the national literacy movement program based on Ministry of Education Law No 21 of 2015. The law encourages every school to institute fifteen minutes of individual reading before school starts. It suggests schools provide reading corners and improve school library facilities to improve literacy in schools. This study notes different practices between regular schools and *madrasahs* in implementing the national literacy movement. In regular schools, students read general books for 15 minutes before school while children in *madrasahs* are encouraged to read the Al Quran or other Islamic books. The literacy program can effectively improve literacy at both regular and *madrasah* schools. However, the program creates some challenges: (1) teachers need to apply the 15 minutes of reading consistently and students should use the class reading corners or library facilities in the school; (2) limited space in the classrooms can make it difficult to set up the reading corners; (3) schools may lack library facilities, for example their book collections may be limited; (4) Parents offer little support in developing their children's reading habits at home.

Literacy emerged as a concern for most local stakeholders, especially in Sidoarjo and Batu city. The Sidoarjo government commitment to promoting a reading culture is evident in various initiatives. The commitment to improving literacy is stated in the indicators in the regional mid-term development plan that proposes a reading interest Index. The education office, library and filing services collaborate to promote a reading culture, for example by encouraging students to visit the library, by providing mobile libraries and by

establishing and improving libraries in schools or at sub-district level. In 2017, the reading interest index reached 42.95 per cent (above the 42 per cent target)(Sidoarjo district, 2017). The government declared the literacy movement to improve the culture of reading and writing in the districts. The movement involves many stakeholders including: a memorandum of understanding with *Jawa Pos* (a local newspaper) to generate interest in reading newspapers; the literacy movement in schools; competitions; and publishing books or stories written by teachers and students. The district government even received the PRIORITAS literacy award in 2017. While Sidoarjo has been promoting literacy for some time, Batu city launched itself as a literacy city in 2018 to promote a culture of reading in schools, homes and the community. The Batu government is in the process of developing a mayor's decree to provide the legal basis for implementing the literacy movement in the city.

Besides the literacy movement, local governments have implemented other national programs, including providing books for school libraries and running science competitions to improve and promote literacy and numeracy skills.

Table 4.16: Local initiatives to improve literacy and numeracy

Local program	Pasuruan	Sidoarjo	Probolinggo	Batu	Sumenep
Implementing the national literacy movement. The program recommends 15 minutes reading before school, providing reading corners in classrooms and providing other facilities to support literacy at school	✓	✓	✓	✓	✓
Science competitions (O2SN, Science Olympics) are part of a national program and these competitions are called 'Aksioma' in the <i>madrasahs</i>	✓	✓	✓	✓	✓
Allocating APBD to provide books through BOS and BOSDA	✓	✓	✓	✓	✓
Mobile libraries as part of the district government library department	✓	✓	✓	✓	
Stipulating policy and programs concerning literacy		✓	✓	✓	

Discussion

This section describes the baseline study results on local governments' current policies and programs to improve education quality in the five study areas in East Java. Overall, the policies and interventions that have been implemented correspond with the top three priorities raised by respondents in this study. Similarities across the five districts emerged with regard to government policies to improve teacher quality by allocating budgets and implementing programs to develop their professional skills. Common policies and programs to improve literacy and numeracy in the five areas were derived from the national education program, including the national program on literacy, science competitions and books for school libraries.

Sidoarjo district has established strong practices and policies to improve teachers' professional competencies and literacy levels among students and the community as a whole. Teachers in Sidoarjo are asked to allocate 5 per cent of their certification incentives to participate in continuing professional development. Secondly, the Sidoarjo government has involved all components of the community in promoting a literacy culture. Indicators to measure its achievement are incorporated in the district mid-term development plan. In addition the Sidoarjo government is in the process of revising its local regulation, concerning education service delivery. The revised regulation will regulate improvements in education quality through character building, inclusive education, outdoor learning methods, developing a literacy culture and

continuing professional development for teachers, principals and supervisors. It will also strengthen previous regulations, such as the district head decree on education quality. Regulations provide the legal basis to support the sustainability of all the initiatives to improve education quality in Sidoarjo. These effective practices and policies in Sidoarjo can be promoted in other areas in East Java and in other provinces to improve continuing professional development practices for teachers, principals and supervisors as well as students' literacy levels.

4.4 LOCAL BEST PRACTICES TO IMPROVE BASIC EDUCATION QUALITY

Local stakeholders cited a number of local best practices – implemented by individuals, institutions and village governments – that have helped improve education quality. Some of these aim specifically at improving students' literacy and numeracy skills.

1. Teachers apply effective and creative teaching methods to improve students' performance at school.
 - (a) In Pasuruan, one respondent at a *madrasah* said that two of the early grade teachers, Ibu Susriati and Susmiyati, use particularly creative teaching methods.
 - (b) In Sidoarjo, respondents also mentioned some of the outstanding teachers by name. Harum Kawaludin,¹ a teacher and head of the Indonesian teachers' association (IGI) in Sidoarjo, has developed an effective literacy teaching method he calls '*tangga cerita*' (household stories) which has been disseminated through continuing professional development programs. He also uses technology to promote creative teaching methods through Youtube and talk shows. Sri Sugiarti, a teacher from Sidokerto primary school actively promotes inclusive education. Rolis Awang Widodo, a teacher at Geluran 1 Tama primary school was also described as an innovative teacher who actively promotes literacy. Fajar, a teacher at Pembangunan Jaya primary school, has developed creative learning methods in numeracy and the best practices at this school were identified in the INOVASI stocktake study.
 - (c) In Sumenep, respondents singled out a primary school teacher, Fatkhor, who promotes story telling in schools to improve literacy.
2. Individual teachers or institutions actively promote literacy.
 - (a) In Pasuruan, informants mentioned Aslin Nuraini, a non-permanent teacher at Kalianyar II Bangil primary school who promotes literacy among teachers. She is also author of '*Ku ingin jadi: bukan guru biasa*' (I want to be: an extra ordinary teacher), an inspirational book for teachers.
 - (b) In Sumenep, a 'house of literacy' (*rumah literasi*)² has been set up to promote literacy among teachers and students. This institution provides a reading space, helps teachers and students develop their writing skills and publishes the books they write.
3. Schools institute good practices in literacy.
 - (a) In Probolinggo, Paiton Bhakti Pertiwi primary school and Negeri 2 *madrasah*, both private schools, are known for their good practices in implementing their literacy programs.
 - (b) In Batu city, teachers from Punten 1 primary school³ produce child-friendly handbooks, written in the form of children's storybooks.
 - (c) Pamolakan 3 primary school⁴ has promoted literacy in and outside the classroom using innovative approaches, such as their reading walls displayed in classrooms.

^{1, 18, 19, 20, 21} These best practices are also identified in the East Java stocktake (INOVASI, 2018).

- (d) Pangarangan 3 primary school⁵ publishes a school bulletin in Sumenep.
4. Model schools are established for inclusive education.
- (a) In Sidoarjo, Sidokerto primary school has an effective inclusive program.
 - (b) In Probolinggo, Tukul 2 primary school has also instituted effective methods to help children with disabilities learn in the regular school environment.

Most respondents identified individuals who have developed best practices to improve education quality at the school level. Several local best practices cited in this study also featured in the stocktake study in East Java that INOVASI conducted in early 2018. Enabling conditions that contribute to the development of best practices are: (1) principals with effective leadership and management skills; (2) competent teachers and a supportive environment; and (3) active school committees that participate in efforts to improve education quality. School committees play an important role in monitoring education quality and raising funds for school activities. The findings show that each district has the potential and the resources to accelerate improvements in literacy and numeracy. However, any best practices need to be acknowledged, promoted and disseminated at the local level if the benefits are to spread to other institutions or areas. As this does not always happen, the provincial education office is planning to implement an information system for school innovations (*sistem informasi inovasi sekolah* – SIISKA) so that teachers in East Java can share and adopt best practices from all the schools.

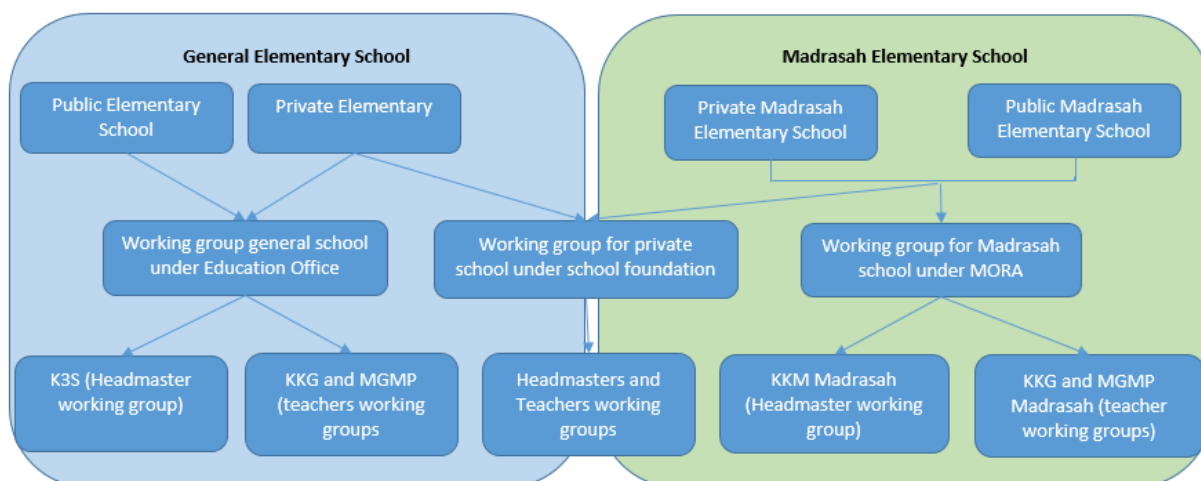
Based on these findings, INOVASI could also help promote local best practices. The INOVASI literacy program can collect information on local teaching methods, test them to verify and evaluate their effectiveness in different contexts and document the best practices in training modules or other learning media for other teachers to learn and replicate the ideas. The module or other materials can also be incorporated in teachers' working group activities and other continuing professional development programs.

4.5 PROFILE AND SITUATION ANALYSIS OF TEACHERS' WORKING GROUPS SUPPORTED BY LOCAL GOVERNMENT

MoEC aims to develop and refresh the professional skills of teachers, principals and supervisors through the working group cluster system. The primary teacher and subject teacher working groups are learning forums where teachers can share information, teaching methods, experiences and learning tools as well as find solutions for problems that arise in the classroom. The working groups also function at the sub-district level. Similarly, the working groups for school principals and supervisors provide a forum to share experiences and run continuing professional development programs.

MoRA has also established working groups for teachers and principals at *madrasahs* at both primary and secondary level. Private *madrasahs* under the Ma'arif and Muhammadiyah Islamic organisations have established working groups or forums at school cluster and sub-district levels for a similar purpose. These groups have regular monthly activities. Figure 3.7 shows how the working groups are set up under the different systems, including for the private schools run by school foundations.

Figure 3.7: Teachers and principals' working groups: primary and secondary schools



Notes: K3S = principals' working group ; KKG = teachers' working group; MGMP = subject teachers' working group; KKM = *madrasah* teachers' working group

The district education and religious affairs offices in the targeted areas use these working groups to coordinate with principals and teachers and to develop their professional capacity. Teachers' working groups for regular schools are at the cluster level while the *madrasah* working groups are usually at sub-district level. Overall the groups across the two systems tend to organise similar types of activities.

Activities in the teachers and principals' working groups under MoEC are funded from the schools operational funds (BOS) and the local government budget (ABPD) for meetings at district level. The activities are planned by semester and also annually. Most teachers' working groups under MoEC in the targeted areas hold regular meetings after school, at least once a month, except for the groups in Probolinggo and Sumenep. In Probolinggo, about 50 per cent of the teachers' working groups are not active due to difficulties in timing the meetings to suit all members and generally less interest among teachers. In Sumenep, respondents said that some groups are less active due to the lack of financial support for regular meetings. Some teachers' working groups only meet two months before the exams specifically to coordinate and prepare for the exams.

Respondents said that monthly teachers' working group meetings at cluster level tend to focus on administrative matters relating to school events and exam preparation as well as exchanges among the teachers. In all five study areas they noted that only some of the group activities effectively improve teachers' pedagogical skills. Common group activities include: developing lesson plans, learning materials and teaching methods; sharing experiences and learning tools; and discussing issues that arise in the classroom. Working group members also use the forum to disseminate new initiatives or programs after they have attended training courses. In Sidoarjo, continuing professional development activities conducted through the working groups aim to improve the professional competency of teachers and principals.

Respondents also highlighted disparities in the quality of working groups that are determined by: (1) the motivation of group members to share knowledge and to learn from others; (2) the quality of the working group committees that develop the activity program; and (3) the level and quality of support from the school supervisors.

Similarly, the *madrasah* working groups do not always focus on developing teachers' pedagogical skills. Furthermore their budget constraints make it difficult to hold regular meetings that all the teachers can attend. In Sumenep, many teachers have lost interest in participating in the working group activities because there is no support for their transport costs.

Nevertheless, most respondents still regarded all the working groups – for primary teachers, secondary teachers, principals and supervisors – as useful forums for coordinating, sharing knowledge and discussing problems and solutions. Many groups still do not focus on improving teaching strategies but respondents acknowledge the potential for the working groups to become a forum for continuing professional development. As school supervisors usually facilitate the meetings, INOVASI could develop their capacity to fulfil this role and ensure they are involved in any programs to establish the working groups as a forum for professional development. The INOVASI program will also be monitored and disseminated to other schools under the supervision of school supervisors. In Sidoarjo, school supervisors play an important role in upgrading the skills of principals and teachers and this coincides with INOVASI's own core purpose.

4.6 GOVERNMENT PLANNING IN THE EDUCATION SECTOR THROUGH DEVELOPMENT PLANNING MEETINGS AND THE USE OF VILLAGE FUND ALLOCATIONS

This section describes how communities and local governments discuss and prioritise education interventions through the development planning meetings mechanism, known as *musrenbang*. *Musrenbang* is the government multi-stakeholder consultation forum for development planning. This section also explores stakeholders' perspectives and practices related to the village budget policy to support education in East Java. These practices are based on Law No 6 of 2014 on villages, Law No 60 of 2014 regarding village budget policies and Ministry of Finance regulation No 49 of 2016 regarding procedures for the allocation, distribution, utilisation, monitoring and evaluation of village budgets.

This study found that education practitioners were not engaged with the village or community planning process in their areas, particularly in urban areas. However in rural areas, school principals were involved in the *musrenbang* process. Some respondents recognise the *musrenbang* as a bottom-up decision-making process that effectively accommodates community aspirations. However, the main focus of education sector planning in the *musrenbang* tends to relate to facilities and infrastructure in the early childhood education centres. Most participants in the planning process pay little attention to the quality aspects of education in their villages. Respondents explained that the *musrenbang* process at village level is not the forum to discuss aspirations for education services at primary and higher levels as these issues are better discussed in technocrat planning meetings at district level.

However, education practitioners need to assist village communities to shift their mindsets from focusing on infrastructure to considering the quality aspects of education in future proposals raised at *musrenbang* meetings.

Village funds

The respondents observed that village funds for the education sector tend to be spent on improving pre-schools or other early childhood education centres and community libraries. These both come under the village government jurisdiction. However, they generally agree that the funds could potentially support other education programs in the community. In Sumenep, funds have been used to support the non-formal education *madrasah* program. In Sidoarjo, the village allocated funds to improve literacy in the community by providing a village library. In Probolinggo the local government is working on a regulation to encourage the use of village funds to support literacy and non-formal education at the village level. Non-formal education includes early childhood education centres and tutorial activities in the villages. The regulation should provide policy support and persuade village leaders to promote literacy by providing a village library. In Probolinggo, INOVASI has the opportunity to engage with and support the local government in finalising this regulation.

4.7 PARTNERSHIPS

This study found that cities and districts in East Java have many potential partners that can contribute to improving education quality. Some areas have already collaborated with the private sector through the corporate social responsibility program. The stakeholders that have been working in Batu city, Sidoarjo, Pasuruan, Probolinggo and Sumenep are listed in Table 4.5.

Table 4.17: Education stakeholders in East Java

Stakeholders	Description
Education boards	<p>Education boards at provincial and district level are supported by APBD and actively engage with local government to address education issues in East Java.</p> <p>At provincial level, the education boards work in partnership with government to improve education quality through the provincial government authorities. In 2019, the boards will collaborate with local government to develop an inclusive school model.</p> <p>The roles of the education boards include advocacy and conducting workshops or training to improve the capacity of school committees with regard to school budget planning and monitoring the education quality in schools.</p>
Teachers' Association of the Republic of Indonesia – PGRI	<p>At provincial and district level, the teachers' association has annual regular programs including workshops or training courses for teachers. The programs cover relevant government regulations and develop professionalism for teachers and non-teaching staff. They also advocate on education issues with local governments.</p> <p>PGRI activities are funded by membership fees and through private sector sponsors. PGRI often collaborates with universities to conduct workshop, namely: Airlangga University (UNAIR), PGRI University, Budi Utomo University and Petra University.</p>
Ma'arif, Nahdlatul Ulama	<p>Ma'arif comes under the large Islamic organisation, Nahdlatul Ulama (NU), and is responsible for implementing education policy and programs at NU institutions. Ma'arif supports the <i>madrasah</i> schools under NU in terms of infrastructure and capacity building for teachers and non-teaching staff. At sub-district level, Ma'arif deploys sub-district coordinators to facilitate regular meeting with <i>madrasahs</i> and monitor the <i>madrasahs</i>' operations.</p> <p>Teachers' workshop aim to improve learning and evaluation processes while principals' workshops aim to improve management skills, particularly in managing <i>madrasahs</i>.</p> <p>Ma'arif interventions vary across areas due to different organisational capacities. In Sidoarjo, Ma'arif has limited capacity to assist <i>madrasahs</i> and while there was a Ma'arif workshop in 2018, it was the first in five years. Meanwhile in Pasuruan, Ma'arif conducts numerous workshops and meetings annually.</p>
Muhammadiyah education division (majelis pendidikan)	<p>This division supports schools affiliated with the Muhammadiyah Islamic institution. It runs programs at provincial and district level that include training for principals and teachers, as well as various competitions. Training for school principals usually focuses on their vision or mission for the <i>madrasahs</i> as well as management and supervisory skills. Training for teachers focuses on lesson planning, teaching methods and learning assessments. Participants usually support themselves or they may be funded from the school budget. The institution has a subsidies mechanism to help teachers from small schools to participate in the training. The division conducts regular monitoring and evaluation visits annually. Muhammadiyah has a working group for principals that functions at district level.</p>
Indonesian	<p>This association provides workshops and training for teachers and non-teaching</p>

Stakeholders	Description
Teachers' Association (IGI – <i>Ikatan Guru Indonesia</i>)	<p>staff to improve their professional competency. The training covers, for example: developing lesson plans; improving literacy; high order thinking skills – concept and implications for education; IT training for teachers; and developing academic writing skills for teachers as part of the classroom action research program.</p> <p>Participation in activities conducted by IGI is also self-funded or with additional funding from private donors.</p>
Universities	<p>A number of universities in East Java play an important role in improving education quality by training teachers. The following universities have collaborated with local stakeholders in East Java: State University of Surabaya (UNESA), Islamic University of Malang (UNISMA), State Institute for Islamic Studies (IAIN), Brawijaya University (English teacher training), Technology Institute of Surabaya (ITS), Muhammadiyah University, Ikatan Sarjana Nahdlatul Ulama and Electronic information Technology System educational division (SETI).</p>
Private sector through the corporate social responsibility program (CSR)	<p>Pasuruan</p> <p>(1) The Putra Sampoerna Foundation established a teacher learning centre in Pasuruan where teachers and non-teaching staff can share their knowledge and improve their skills. The foundation also conducts training on improving education quality, professional competencies for principals and teachers and school management.</p> <p>(2) Cargill Ltd – Pasuruan: Building school infrastructure (Gempol 2 junior secondary school) and conducting teacher training</p> <p>Probolinggo</p> <p>IMUNI Ltd, YTL East Java Ltd and Pembangkit Jawa Bali Ltd (PJB) supported the literacy program by: providing books and infrastructure; promoting health units in schools; supporting school logistics, for example by providing bags; and funding school infrastructure and facilities. One private company also supports tutorial sessions and sports facilities for children in villages.</p> <p>The limitation of CSR is that it only targets communities near to the industrial areas.</p>
Non-governmental organisations that have worked in targeted areas	<p>Sidoarjo: Mutiara Rindang Foundation promoted literacy through a library program in 40 schools in Sidoarjo and USAID contributed through the PRIORITAS and Decentralised Basic Education (DBE) programs (2012–2017)</p> <p>Batu: USAID contributed through the PRIORITAS and Decentralised Basic Education (DBE) programs (2012–2017)</p> <p>Pasuruan: USAID through the Decentralised Basic Education and PRIORITAS programs (focus on school management and teaching methods/active learning) – the practices are still applied in two sub-districts (2012–2017). Lesson Study – Japan International Cooperation Agency (JICA) aimed to promote better teacher learning (2006–2008). USAID also implemented the <i>Madrasah</i> Development Centre (MDC) from 2012 to 2017.</p> <p>Probolinggo: Managing Basic Education – USAID (2003–2007)</p> <p>Sumenep: Improving the minimum service standards in education with support from the European Union (2015–2017)</p>

Most participants in this study recognised the positive impact on the communities through the non-governmental organisations and other education stakeholders working in East Java. These organisations are perceived as supporting local governments to improve educational quality in the targeted areas. However some lessons can be learnt from the drawbacks in their approaches.

1. Many non-governmental organisation programs only intervene in the same areas or schools. Meanwhile, many schools with educational issues have not had the opportunity to work with them. This leads to uneven improvements across schools. For example, the Decentralised Basic Education and PRIORITAS programs were both implemented in the same schools.
2. Corporate Social Responsibility projects usually support schools near the industrial areas where the company is situated. This means less opportunity for other schools to receive additional support from these funds.
3. The lack of commitment of some school principals, school supervisors and teachers contributes to previous non-governmental organisation programs becoming unsustainable. They implement the program only while it is being monitored. Yet stakeholders all recognise the vital role these three actors play in the success of these interventions at school level.
4. The impact of non-governmental organisation programs usually only lasts for a short period despite local governments' support and efforts to sustain and disseminate best practices to other areas. Respondents suggest that INOVASI could help develop a policy, in the form of a local government regulation, to ensure the sustainability of the new initiatives.

5. CONCLUSIONS AND RECOMMENDATIONS

This baseline study found that most respondents define education quality in relation to education outcomes represented by the quality of the students or graduates and their level of competencies, as well as their strength of character. This reflects the expected results of education according to curriculum 2013. However this study found some disparities in education development across the cities and districts in East Java, and particularly in the INOVASI targeted areas. In terms of education outcomes, Sidoarjo and Batu city achieved high performance while in Pasuruan, Probolinggo and Sumenep the outcomes ranged from medium to low performance. Moreover, all stakeholders highlighted the disparities in education in each area. Different education quality is evident between urban and rural areas as well as between regular and *madrasah* schools. In Pasuruan, respondents cited disparities in education quality between the eastern and western parts of the district.

This study identifies some issues and challenges related to the different quality of education and outcomes in the targeted areas, as shown in Table 5.1.

Table 5.18: Summary of issues and challenges in education in East Java

Issue/challenges	Batu	Sidoarjo	Pasuruan	Probolinggo	Sumenep
Competency in literacy and numeracy	<ul style="list-style-type: none"> • Not major issues • Concern about developing a culture of reading • Disparities between urban and rural areas 		Literacy still a problem	Children's lack of fluency in reading is a major issue	
Teacher issues				<ul style="list-style-type: none"> • Shortage and unequal distribution of teachers • Teacher with low qualifications 	<ul style="list-style-type: none"> • Shortage and unequal distribution of teachers
	<ul style="list-style-type: none"> • Teachers with fixed mindsets resist change and professional development • Different pedagogical and professional competencies among teachers due to 				

Issue/challenges	Batu	Sidoarjo	Pasuruan	Probolinggo	Sumenep
	different opportunities for training, fixed mindsets, resistance to change				
Issues on implementing curriculum 2013	<ul style="list-style-type: none">Teachers are less willing to implement curriculum 2013 because they need to change their teaching methods, especially in early grade classes that use thematic learningTeachers are confused about how to assess students' performance against curriculum 2013				
Quality of school principals	<ul style="list-style-type: none">Some principals have lack leadership and supervisory skills which has an impact on education qualitySome principals focus on administrative matters rather than leading and supervising teachers to improve education qualityFor <i>madrasahs</i>, principals are likely to prioritise infrastructure over improving education quality and the autonomous approach of principals at private <i>madrasahs</i> makes it difficult for MoRA or Ma'arif to intervene				
Disparities in school infrastructure	Infrastructure issues were raised by the <i>madrasah</i> respondents			Infrastructure issues at regular schools and <i>madrasahs</i> persist due to limited APBD	
Learner characteristics	<ul style="list-style-type: none">Although most first grade students had early childhood education, they started grade one with different levels of literacy and numeracyStudents from low income families prefer to start work rather than pursue higher education and this affects enrolment at senior secondary school levelChildren living apart from parents tend to face more difficulties in learning				
				Language barriers in learning are found among children in rural areas because they are not fluent in Bahasa Indonesia	
				Child labour affects school attendance and education quality	
Issues of access to education				Gender disparities in access to higher education due to economic reasons in Pasuruan and early marriages in Probolinggo and Sumenep	
				Mountainous topography and distances create challenges for children to get to school	Limited achievements in education for children living on the islands due to access difficulties that affect both teachers and students' attendance at school
	Unequal access to special and inclusive schools for children with special needs or disabilities				

Disparities in the quality of education in schools across East Java relate to various issues: input, processes, education governance, parents' socioeconomic status and the community context. Stakeholders believe that improvements in education quality will stagnate if these disparities are not addressed. Respondents agreed that improving teacher quality is the most important strategy in improving education quality overall. This implies too that the quality of education needs to be consistent in all schools. As part of this strategy, the leadership and supervisory skills of school principals and school supervisors also need to be developed to ensure sustainable improvements at school level.

Implications for the INOVASI program

1. By aligning with the national government program to improve teachers' professional skills through continuing professional development, INOVASI has an opportunity to contribute training modules or learning materials to improve teachers' competencies and boost literacy and numeracy in early grade classes. The modules or materials can be used in continuing professional development programs. The curriculum for grades one to three teachers may include multilingual teaching methods that use local language as a second language of instruction to overcome the language barrier in rural areas. Applying INOVASI's experimental approaches could help provide evidence of the most effective aspects of the professional development curriculum in improving teachers' competencies.
2. INOVASI's literacy program can focus on collecting local best practices (local teaching method), testing the methods for their effectiveness in different contexts and documenting the methods for various learning media so best practices can be replicated by other teachers. These best practice can also be promoted through the teachers' working groups or other continuing professional development programs.
3. The school principals and school supervisors play a vital role in improving education quality at school level and INOVASI needs to involve these two actors in all their interventions from the planning stages.
4. INOVASI can improve the effectiveness of teachers' working groups in increasing teacher quality. Improving the capacity of the teachers' working group committees to manage and develop programs is essential to increasing their impact. INOVASI can implement its pilot activities aimed at improving teachers' skills through the teachers' working groups. INOVASI can also develop and promote an effective model for discussion in the groups creating a forum to focus on problem-solving and resolve specific issues that arise in particular contexts.

Policy implications

1. The change of governor in East Java and the newly elected district heads in some targeted areas gives INOVASI an opportunity to advocate improvements in education quality as the main agenda in the new provincial and district level mid-term development plans. Improvements in education quality imply improving teachers' qualification and skills, and developing a culture of literacy. The Sidoarjo mid-term development plan includes a literacy indicator showing the district government's commitment to improving literacy levels. This is a good example and shows the potential for government to program, monitor and measure improvements in literacy. All stakeholders recognise the potential of using village funds to improve literacy at village level. INOVASI could support local government to advocate using village funds in this way, especially in promoting a reading culture at the village level. Finally, this strategy can improve the sustainability of any initiatives or programs that INOVASI implements in East Java.
2. Sidoarjo has developed good policy practices for continuing professional development and literacy that should be promoted or leveraged to other areas in East Java or other provinces. INOVASI can facilitate this process of sharing good practices in cities and districts in East Java.
3. Sidoarjo and Batu city have conducted some effective programs to improve teachers' competencies, while other areas have not allocated funding for these programs. However, by conducting a cost-effectiveness analysis of education policy in targeted areas, local governments will be able to evaluate the impact and value of these programs. For Pasuruan, Probolinggo and Sumenep the analysis can help

identify issues in education programming and potential sources of additional funding (or reallocating the existing budget) for the quality aspects of education.

4. The high number of *madrasahs* in East Java means they are at a disadvantage due to MoRA's limited capacity to manage the *madrasah* system. INOVASI could facilitate a meeting of all stakeholders to devise an appropriate structure and funding scheme to improve the education quality in the *madrasahs*.

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