



# Assessment of Indonesia's Early Childhood Education and Development Accreditation Process

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## Abbreviations and Acronyms

<b>BAN-PNF</b>	National Accreditation Agency-Nonformal Education ( <i>Badan Akreditasi Nasional–Pendidikan Nonformal</i> )
<b>BAN PAUD</b>	National Accreditation Agency for Early Childhood Education ( <i>Badan Akreditasi Nasional–Pendidikan Anak Usia Dini</i> )
<b>BKKBN</b>	National Population and Family Planning Board ( <i>Badan Kependudukan dan Keluarga Berencana Nasional</i> )
<b>BSKAP</b>	Body of Standards, Curriculum, and Education Assessment ( <i>Badan Standar, Kurikulum, dan Asesmen Pendidikan</i> )
<b>DAPODIK</b>	Basic Education Data ( <i>Data Pokok Pendidikan</i> )
<b>ECE</b>	Early Childhood Education
<b>ECED</b>	Early Childhood Education and Development
<b>GER</b>	Gross Enrollment Rate
<b>Gol</b>	Government of Indonesia
<b>IPV</b>	Visitation Assessment Instrument ( <i>Instrumen Penilaian Visitasi</i> )
<b>KM</b>	Emancipated Curriculum ( <i>Kurikulum Merdeka</i> )
<b>KPA</b>	Accreditation Application Classification ( <i>Komisi Pelaksanaan Akreditasi</i> )
<b>LMIC</b>	Low- and Middle-Income Country
<b>MoECRT</b>	Ministry of Education, Culture, Research and Technology
<b>MoHA</b>	Ministry of Home Affairs
<b>MoRA</b>	Ministry of Religious Affairs
<b>MSS</b>	Minimum Service Standards
<b>NGO</b>	Nongovernmental Organization
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>PASA</b>	Programmatic Advisory Services and Analytics
<b>PAUD</b>	Early Childhood Education Program ( <i>Pendidikan Anak Usia Dini</i> )
<b>PISA</b>	Programme for International Student Assessment
<b>PNF</b>	Nonformal Education ( <i>Pendidikan Nonformal</i> )
<b>PPA</b>	Accreditation Prerequisite Assessment ( <i>Penilaian Prasyarat Akreditasi</i> )
<b>RA</b>	Islamic Early Childhood Education ( <i>Raudhatul Athfal</i> )
<b>SISPENA</b>	Accreditation Assessment System ( <i>Sistem Penilaian Akreditasi</i> )
<b>SNP</b>	National Education Standards ( <i>Standar Nasional Pendidikan</i> )
<b>TK</b>	Kindergarten ( <i>Taman Kanak-kanak</i> )
<b>UN</b>	United Nations
<b>UNESCO</b>	United Nations Educational, Scientific, and Cultural Organization
<b>UNICEF</b>	United Nations Children’s Fund
<b>WHO</b>	World Health Organization

A photograph showing several young children sitting on a patterned mat on a tiled floor. They are wearing orange and black clothing. One child in the foreground is looking at a green card with a diagram of a house. Another child is looking at a pink card with a cartoon character. There are other cards and materials scattered around them.

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# EXECUTIVE SUMMARY

Investments in early years of education and childhood development are among the most cost-effective and beneficial a country can make to tackle learning poverty, promote healthy child development, and enhance shared prosperity. Over the past two decades, the Government of Indonesia (GoI) has scaled up its commitment to early childhood education and development (ECED)<sup>1</sup> through various educational reforms, policies, programs, and financial investments. In response, the provision of public and private services has significantly expanded. Between 2013 and 2016, the number of government-registered ECED institutions nearly doubled. Likewise, the gross enrollment rate for three- to six-year-olds increased from 26 percent in 2010 to 37 percent in 2018. To ensure that all children enter primary school prepared to learn, the GoI established Minimum Service Standards (MSS) to provide early childhood education (ECE)<sup>2</sup> for children aged 5 to 6, creating a path for a minimum of one year of preprimary education for all children by 2030. Despite improvements in access to ECED services, nearly one-half of Indonesian children do not receive any support before entering first grade, particularly those in rural areas and in impoverished households. Nearly 12 million children aged 3 to 6 are not enrolled in preschool education (World Bank 2020). Moreover, for children who do have access to early learning programs, more than one-half attend centers whose quality is unknown.

In Indonesia, ECED services are predominantly provided by private institutions. Almost all (99 percent) of the registered ECED (*Pendidikan Anak Usia Dini* or PAUD) centers are privately managed, established by and for the community, and funded through government subsidies and fees charged to families. The large proportion of private institutions presents a challenge for the GoI to ensure children's equitable access to quality early

learning programs. To address this issue, the GoI passed a government regulation concerning National Education Standards (*Standar Nasional Pendidikan* or SNP) in 2005 (*Peraturan Pemerintah Republik Indonesia* No. 19/2005) that established a national accreditation body for nonformal education (*Badan Akreditasi Nasional–Pendidikan Nonformal* or BAN-PNF). Since the formation of the accreditation system, three periods of operation highlight important improvements that have occurred: (a) 2006–2012; (b) 2013–2017; and (c) 2018–present, as detailed below.

In 2009, BAN-PNF was tasked to carry out accreditation of nonformal PAUD centers using an instrument aligned with the SNP. Later, in 2014–2015, a revised accreditation instrument was developed and BAN-PNF changed its name to BAN PAUD and PNF (per an amendment to the 2005 government regulation) to assess both formal and nonformal PAUD centers. In 2018, BAN PAUD and PNF removed the paper-based requirements in adoption of digital processing and automation. In 2019–2020, two accreditation tools became available: the Accreditation Prerequisite Assessment (PPA) and Visitation Assessment Instruments (IPV). Stipulated by the Decree of the Minister of Education and Culture of the Republic of Indonesia No. 71/P/2021, the PPA and IPV are used in the accreditation process for both public and private educational institutions. Concurrently effective as of 2021, accreditation was included in the MSS per the Ministry of Home Affairs (MoHA)'s regulation No. 59/2021 and the Ministry of Education, Culture, Research and Technology (MoECRT)'s regulation No. 32/2021, reflecting the GoI's commitment to strengthening the role of local governments to ensure the provision of quality ECED services. More recently, in April–May 2023, BAN PAUD and PNF in collaboration with MoECRT's ECED Directorate began to train inspectors and supervisors from all districts/cities in Indonesia on PAUD accreditation.

<sup>1</sup> Meaning services provided to children aged 0 to 6 in this report.

<sup>2</sup> Meaning services provided to children aged 4 to 6 in this report.

In recent years, the number of accredited PAUD centers substantially increased, from 53,270 in 2018 to 107,092 in 2022. However, less than one-half of the 253,075 registered PAUD centers are accredited. As Indonesia's ECED system is characterized by a high degree of decentralization—where responsibility for education services shifts from the central government to local authorities—and many regions have low capacity to ensure quality of services in remote and hard-to-reach locations, ECED accreditation rates vary across provinces. In response to reliable evidence on the common challenges that PAUD centers face when pursuing accreditation, BAN PAUD and PNF recently improved the accreditation system and related processes with the goal of increasing the number of accredited institutions in an effort to ensure high-quality ECED services for all Indonesian children and families.

Within this context, a nationwide assessment was undertaken to identify PAUD center principals' perceptions of what is working well and what could be further improved in the existing ECED accreditation process. This report is the output of that study. As a tripartite collaboration between the MoECRT, BAN PAUD and PNF, and the World Bank,<sup>3</sup> the study surveyed the principals of registered PAUD centers throughout Indonesia's diverse provinces to: (a) identify the characteristics of PAUD centers and their principals, including key differences between accredited and unaccredited centers; and (b) analyze the perceived barriers and facilitating factors that correlate with accreditation status.

Data were collected in March 2022 through an electronic quantitative survey made available via MoECRT's platform

for the management of education data to all registered Indonesian PAUD centers serving children birth to age 6. The survey was informed by extensive international and country-specific research on factors that influence whether ECED centers pursue and obtain accreditation, as well as commonly reported barriers or obstacles to accreditation. Barriers include: (a) infrastructure and financing; (b) program characteristics; (c) school leadership; (d) relational elements; and (e) quality monitoring and evaluation policies and procedures. Further, the survey aimed to uncover how PAUD center principals perceive the value of accreditation as an approach for ensuring the quality of the services that their institutions offer.

The survey was completed by 11,475 principals of registered PAUD centers (the "sample"), equivalent to 4.5 percent of the total PAUD institution population (N=253,075). Around 65 percent of survey responses derived from accredited PAUD centers (compared to administrative data showing that 44 percent of registered centers are accredited). Although the survey sample is not statistically representative of the population, respondents are located in all Indonesian provinces and comprise public and private centers of diverse sizes, ownership, and contexts, thereby affording valuable insights. Because the accreditation of ECED institutions is valid for five years, findings from this study also reveal differences in the perceptions of principals of recently accredited PAUD centers following changes to the system and processes between 2019 and 2021. Thus, the research offers relevant feedback to BAN PAUD and PNF regarding the newly revised accreditation requirements and processes from the perspective of PAUD center principals.

## Key Findings

**The context for improving the quality of ECED institutions in Indonesia is complex.** As the largest archipelagic state, Indonesia consists of more than 17,000 islands spanning over 5,000 kilometers. The country is organized into 38 provinces and 7,252 districts where 253,075 PAUD centers are legally registered to operate. Whereas Indonesia has made significant gains in poverty reduction, increased access to the Internet, and expansion of the education system, significant disparities exist between rural and urban areas and by socioeconomic demographic group.

Due to the decentralization of the education system and the majority of PAUD centers being privately operated, the GoI is challenged to ensure the quality of ECED service provision nationwide. This study's findings illuminate these challenges, as respondent PAUD principals reported working in diverse contexts, ranging from large centers with 30 teachers, three principals, and more than 200 children to much smaller centers with as few as three teachers and only a few children served. PAUD centers are also delivered through different formal (public kindergarten

<sup>3</sup> This study was conducted under the Learning for Human Capital Development Programmatic Advisory Services and Analytics (PASA), which provides analytical and advisory support to the GoI to enhance its evidence-based policy making and implementation of the National Education Strategy 2020–2024.



or private Islamic kindergarten) and nonformal (for example, playgrounds and daycare) systems. Principals' ages, education levels, and working hours per week as well as PAUD center ownership, funding, and Internet access needed to access the accreditation application and tools were also very diverse. It is perhaps unsurprising that PAUD principals reported a variety of barriers and facilitating factors to applying for and achieving accreditation within the Indonesian ECED system.

**Accredited and unaccredited PAUD centers vary by structural characteristics.** Infrastructure and financing, for example, correlate with participation in and achievement of accreditation. In this study's sample, private PAUD centers are more likely than their public peers to achieve accreditation. Further, while Internet access was deemed challenging for nearly one in three respondents, principals in unaccredited centers reported more difficulty accessing the Internet as well as SISPENA, the online accreditation system portal. As BAN PAUD and PNF recently revised the accreditation process to include electronic submission of required documentation, the study's findings suggest this may pose a significant barrier to participation. Additionally, large PAUD centers (measured by the number of teachers, child enrollment, or the number of staff) are more likely to be accredited than small institutions. This finding suggests that smaller centers may not have the capacity to engage in the accreditation process. Lastly, the school leader's qualifications, access to training, and working hours were significant predictors of accreditation status, with the principal's level of higher education the strongest predictor of PAUD center accreditation.

**The majority of PAUD center principals—regardless of accreditation status—perceive that accreditation is beneficial for Indonesia's ECED system.** Principals believe that engaging in the accreditation process improves the quality of early learning provided to children and supports the implementation of the national standards. They also deem the accreditation tools and activities, such as the prerequisite self-assessment and the on-site visitation by external assessors, to support quality improvement. Despite this, more than one in five principals indicate they have never made changes in PAUD structures and/or practices based on monitoring results and external evaluation. Thus, the study's findings suggest that there is overall "buy in" by school administrators of the perceived benefits of accreditation but the transfer of feedback intended to improve practice may fail to occur.

**PAUD center principals report key barriers and facilitating factors to seeking accreditation that relate to the requirements and process.** Barriers include not having

enough information or knowledge about the accreditation process, having too much administrative work to do (such as filling out forms), and keeping up with the changes in the accreditation process. Principals of PAUD centers that became accredited after January 2021—following improvements made by BAN PAUD and PNF—were, however, less likely to report challenges keeping up with changes in the accreditation process. Further, the majority of principals were challenged to manage education personnel through the process. Inadequate PAUD center budget and resources, insufficient Internet access, and the shortage or inadequacy of play or learning materials (measured by the accreditation quality indicators) were additional key obstacles to seeking accreditation. These barriers were associated with accreditation status, suggesting that principals of accredited centers have experienced such challenges and thus deemed them obstacles in meeting the requirements. In terms of facilitators, principals report that relational factors—such as discussing accreditation results with local education supervisors and superintendents, students' parents encouraging them to become accredited, and education personnel collaborating on accreditation activities—were motivators to seeking and obtaining accreditation.

The study results highlight several important characteristics of PAUD centers and demonstrate relevant differences by accreditation status. Taken together and notwithstanding the limitations of the sample of PAUD centers that participated in the survey (as documented in the survey methodology), these insights can inform policies and practices to increase the number of institutions that understand the importance of providing high-quality ECED services and that are prepared to apply for and achieve accreditation.

Recommendations resulting from the study's findings that may be considered by the MoECRT and BAN PAUD and PNF include: (a) continue to improve the existing accreditation process by removing barriers and enhancing support for participation; (b) implement rolling, decentralized, and well-designed communication campaigns on ECED accreditation, its benefits, and how accreditation can be secured; (c) widen the reach of training activities on ECED quality to target more remote PAUD centers with fewer resources, as well as ECED supervisors in more remote, less-well-resourced districts; (d) provide targeted incentives for participation in accreditation; and (e) conduct studies and research on the short- and long-term impacts of accreditation on children's development and readiness for primary education. An overview of each recommendation is provided below.

# Five Main Recommendations for Improvements to the Indonesian ECED Accreditation System

## *Recommendation 1:*

**Continue to improve the existing accreditation process by removing barriers and enhancing support for participation.** Between 2019 and 2021, BAN PAUD and PNF made significant improvements to the Indonesian accreditation system. These include the removal of paper document requirements and the use of SISPENA, an online accreditation system portal, where PAUD centers digitally submit the accreditation application and required documents. Further, new accreditation instruments were developed with fewer indicators measured and the application fee was eliminated to lessen the burden on education units. Provincial accreditation bodies were established in all provinces and their responsibilities included the organization of accreditation socialization activities. Inspectors and supervisors from District Education Offices became responsible for training PAUD centers on how to apply for accreditation. This study's findings suggest that these improvements have reduced some obstacles to seeking accreditation for education units. With this said, barriers remain, such as lack of Internet access needed to apply for accreditation, limited school leader capacity, and lack of information or knowledge about the accreditation process as well as its complexity. Further identifying and addressing differential barriers PAUD centers face while increasing technical support based on need are recommended. Examples include alternative mechanisms like the use of a smartphone app to submit documentation, streamlining the accreditation system with enhanced automation, and data synchronization between information systems like DAPODIK (Basic Education Data or *Data Pokok Pendidikan*) and SISPENA.

## *Recommendation 2:*

**Implement rolling, decentralized, and well-designed communication campaigns on ECED accreditation, its benefits, and how accreditation can be secured and maintained.** Survey results reveal that principals' perceptions of the value of accreditation are overall positive. However, because the respondents are not representative of the Indonesian PAUD center population, it is plausible that principals of larger, more resourced centers closer to urban areas were more likely to receive and respond to communications from central authorities, like this survey. Ensuring that all stakeholders have a clear understanding of the benefits of accreditation, the steps in the process, and the specific requirements is essential. Such messaging may build upon the MoECRT's current communications targeting local governments and service providers about their shared responsibility for ensuring high-quality early education for all children, for which accreditation is a proxy. Clear communication campaigns available in different formats (for example, print, digital, and multimedia) designed to reach different audiences, including unaccredited centers and those seeking reaccreditation, can help to ensure equitable participation in the ECED accreditation system, including for the most remote or marginalized PAUD center.

### **Recommendation 3:**

**Widen the reach of training activities on ECED quality indicators to target more remote PAUD centers with fewer resources, as well as ECED supervisors in more remote, less-well-resourced districts.** The central BAN PAUD and PNF train their provincial counterparts on accreditation mechanisms and requirements through a process known as socialization. In turn, the provincial BAN PAUD and PNF works with other provincial institutions to train supervisors who guide PAUD units on accreditation activities. It is important to note that assessors are not supposed to train PAUD centers' staff on accreditation. Beginning in 2023, the Body of Standards, Curriculum, and Education Assessment (*Badan Standar, Kurikulum, dan Asesmen Pendidikan* or BSKAP) endorsed a compulsory policy encouraging units in remote areas to be fostered by their respective District Education Offices for them to have better access to trainings on the national standards and quality indicators. The study's findings show that principals in accredited PAUD centers report having more access to more trainings on the national standards and related quality indicators than those working in unaccredited centers. It is thus recommended to continue to widen the reach of socialization and training activities to guide PAUD center principals through accreditation requirements and the related processes. Such trainings may be targeted to reach PAUD units less likely to be accredited, such as those located in more remote areas or those centers that are smaller, are open fewer hours per week, or have school leaders and personnel with low levels of education.

### **Recommendation 4:**

**Provide targeted incentives for participation in accreditation.** Currently, incentives to seek accreditation in the Indonesian ECED system are weak and limited to opportunities to apply for grant funding available only to accredited units with the highest rating. However, PAUD financing is overseen at the district level and influenced by each village's budget, resulting in disparate access to funding support. The study's findings reflect the perceived value of incentives, such as financial and resource support and opportunities for professional development, particularly for those working in unaccredited centers. To ensure equitable distribution and support, it is essential that the central and regional governments provide incentives for accredited units. By incentivizing PAUD centers that are at the margin to participate in the accreditation process, BAN PAUD and PNF, the MoECRT, and the Ministry of Religious Affairs (MoRA) may experience increased accreditation rates, particularly if implemented as part of an integrated suite of actions linked to the other recommendations. Examples of incentives may include providing formal educational opportunities for school leaders, enhancing grant opportunities, supplying marketing materials, and creating a professional network of accredited PAUD centers to coach unaccredited centers through the accreditation process.

### **Recommendation 5:**

**Conduct studies and research on the short- and long-term impacts of accreditation on children's development and readiness for primary education.** Study findings offer new insight into the perspectives of PAUD center principals regarding the Indonesian accreditation system, including barriers and facilitating factors that correlate with accreditation status. Follow-up research exploring different aspects of accreditation in greater depth may strengthen public awareness about the benefits and return on investment of enrolling young children in accredited education institutions. For example, little research has been conducted on Indonesian school leadership and principal preparation, offering an opportunity for further examination of the interplay between principal qualifications, program structure, and interactions with children, teachers, and parents that, together, yield positive impacts on children's development.

# INTRODUCTION

**Investments in early years of education and childhood development are among the most cost-effective and beneficial a country can make to tackle learning poverty, promote healthy child development, and enhance shared prosperity.** Decades of research on child development demonstrate that high-quality early childhood education and development (ECED) enhances children’s cognitive and social-emotional outcomes in both the short and long term (Campbell and Ramey 1994; Engle et al. 2011). Because early experiences shape the brain’s architecture, laying the foundation for lifelong learning, health, and well-being (Center on the Developing Child 2007), ECED interventions yield greater returns on investment and to society than interventions implemented with adults (Heckman 2006). The rate of return on investments in ECED is particularly significant in low- and middle-income countries (LMICs). In contrast, failure to ensure children’s access to ECED services may result in significant, irreversible damages for individuals and nations in the short, medium, and long term. Many countries across the globe have increased their investments in ECED based on this evidence (Sayre et al. 2015). The importance of such investments has been magnified in light of the negative impacts of the COVID-19 pandemic on children’s learning and development (Box 1).

**Over the past two decades, the Government of Indonesia (Gol) has scaled up its commitment to ECED through various educational reforms, policies, programs, and financial investments.** In 2001, it established a new directorate dedicated to early childhood within the Ministry of Education, Culture, Research and Technology (MoECRT). The National Education System Law No. 20 of 2003 specified that ECED services should be available for children from birth to age 6 and provided through different models, such as playgroups and kindergartens (Hasan, Hyson, and Chang 2013). More recently, a 2022 draft revision of the national law will include one year of compulsory preprimary education (MoECRT 2022b). In

2005, the Gol established Minimum Service Standards (MSS) to provide early childhood education (ECE) for children aged 5 to 6, creating a path for a minimum of one year of preprimary education for all children (Government of the Republic of Indonesia 2005). Whereas primary school beginning at age 7 is mandatory and free, ECED services are not currently part of Indonesia’s compulsory education system (Brinkman et al. 2017b). Between 2006 and 2013, the Gol invested US\$34.9 million<sup>4</sup> in partnership with the World Bank on the Indonesia Early Childhood Education and Development Project, the goals of which were to increase access to early childhood services and to improve school readiness for 738,000 children aged 0 to 6 living in impoverished communities (Pradhan et al. 2013). The Gol furthered its aim to expand provision of early learning through 2025 with the 2013 policy agenda called “The Grand Design” (Denboba, Hasan, and Wodon 2015). In the same year, the MoECRT designed a national ECED curriculum emphasizing children’s holistic development to ensure that all children enter primary school prepared to learn. This includes meeting children’s needs, namely health, nutrition, education, care, protection, and welfare through Integrative Holistic Early Childhood Development (*Pendidikan dan Pengembangan Anak Usia Dini Holistik Integratif* or PAUD HI). Starting in late 2019, the Gol initiated a series of systemic education reforms known as Emancipated Learning (*Merdeka Belajar*) (Randall et al. 2022). Among these reforms, the MoECRT launched a new curriculum in 2022 entitled Emancipated Curriculum (*Kurikulum Merdeka* or KM), the aim of which is to promote age-appropriate practices to support children’s development in domains such as religious-moral, physical-motor, emotional-social, language, and cognition (MoECRT 2022a). The Gol’s ultimate goal is universal access to quality ECED services throughout the country by 2030, as declared in United Nations (UN) Sustainable Development Goal Target 4.2 and supported by the Gol’s Presidential Decree No. 59/2017 (Iskandar 2020).

<sup>4</sup> The project amount was over US\$127 million.



## Box 1: Impacts of the COVID-19 Pandemic on Young Children and Students

**The COVID-19 pandemic has adversely impacted the development of the world's youngest and most vulnerable children.** Between March 2020 and February 2021, an estimated 167 million preprimary-age children in 196 countries lost access to ECED services, exacerbating existing disparities in basic health care, nutrition, and responsive stimulation. When countries devised reopening plans in mid-2020, ECED schools were the least prioritized and young children had the lowest support compared to their older peers (Bendini and Devercelli 2022). As a result of these disruptions, an estimated 10.75 million additional children fell “off track” in their development, with anticipated developmental losses concentrated in LMICs. Moreover, new research on babies born during the pandemic suggests that pandemic-related stress during pregnancy (regardless of infection) may produce a “developmental dip” in children’s early learning and motor skills (Moyer 2022). The impacts were greatest on children from low-income families and on boys compared to girls. Among older students, learning poverty increased by one-third, with 70 percent of ten-year-olds in LMICs unable to read or understand a simple text due to school closures and other disruptions (World Bank 2022b).

**The effects of the pandemic on Indonesia’s 80 million children are significant and widespread.** Access to education and essential health, nutrition, and protected services, widespread loss of jobs and income, increased stress and mental health challenges of parents and children, and other factors have negatively affected Indonesian children’s physical, cognitive, and educational development (UNICEF 2021b). Using a simulation tool, a recent World Bank report predicted that school closures between March and November 2020 will negatively impact students’ future academic learning by 21 points on the PISA (Programme for International Student Assessment) reading scale and US\$484 in future annual individual earnings,<sup>5</sup> as well as exacerbating social exclusion and inequality, especially for already marginalized and vulnerable students (Yarrow, Masood, and Afkar 2020). With decreased family income to spend on basic necessities and education expenses, the pandemic may also result in 7–10 million children dropping out of school (Butcher et al. 2021). Although the Gol responded quickly to offer guidelines and resources for parents to support their young children’s learning at home when the pandemic hit, including introducing an emergency curriculum and different modes of distance learning as well as providing free Internet access to students since August 2020, many parents struggled to provide appropriate stimulation and interaction at home necessary for optimal development and thriving (Wahyuni and Rudiyanto 2021).



<sup>5</sup> This could drive a present value loss in lifetime earnings for all students of about US\$151 billion, equivalent to 13.5 percent of 2019 gross domestic product (World Bank 2020).

**Due to the Gol's commitment to ECED, the provision of services steadily increased over the last decade.** Between 2013 and 2016, the number of registered ECED institutions nearly doubled, from 117,051 to 224,321 (Won and Adriany 2020), and the gross enrollment rate (GER) for three- to six-year-olds increased from 26 percent in 2010 to 37 percent in 2018 (Filantropi Indonesia 2021). As of December 2021, 237,062 registered ECED (*Pendidikan Anak Usia Dini* or PAUD)<sup>6</sup> centers operated throughout the country, serving approximately 36 percent of children aged 3 to 6 (Ministry of Women's Empowerment and Child Protection 2021).

**Despite increased ECED enrollment over time, disparities in access remain by location and sociodemographic factors.** For example, children living in rural areas and in poor households and children with special needs are less likely to attend early learning programs (Denboba, Hasan, and Wodon 2015). Key constraints to higher access to ECED services include limited funds, low number of trained staff, limited awareness by parents, and low provision of services in remote areas (UNICEF 2020). Seventeen percent of villages in the country lack ECED services altogether (World Bank 2020). In response, the Gol established a national agenda for providing one year of preprimary education for all children by 2030 (Iskandar 2020).

**With the expansion of Indonesia's ECED system, the Gol has committed to improving its quality since the early 2000s.** In 2005, the Gol passed a government regulation concerning National Education Standards (*Standar Nasional Pendidikan* or SNP) that established a national accreditation body for nonformal education (*Badan Akreditasi Nasional—Pendidikan Nonformal* or BAN-PNF). The accreditation process was first implemented in 2008 to ensure and oversee the quality of PAUD centers in a systematic way (Won and Adriany 2020). Later, in 2014–2015, one instrument was developed to carry out accreditation of both formal and nonformal PAUD centers, and BAN-PNF changed its name to BAN PAUD (*Badan Akreditasi Nasional—Pendidikan Anak Usia Dini*) and PNF. BAN PAUD and PNF's key responsibilities include preparing policies and guidelines for the implementation of accreditation assessments, as well as reporting accreditation results to the government with the goal

of improving the quality of ECED services (Rukhiyak, Notosudjono, and Sunaryo 2020). In 2018, the Gol issued updated MSS that emphasize holistic, integrated ECED. Additional actions included strengthening of the coordination across key institutional actors and levels of government, as well as provision of subsidies to PAUD centers by the central government through an operational management grant of about US\$40 per child per year. This grant is only available to centers formally registered with the government. Finally, to support quality improvement and data-driven planning, in 2022 the MoECRT developed tools (called *Rapor Pendidikan* and *Perencanaan Berbasis Data*) for local governments and centers to self-assess the quality of their services.

**As a key mechanism to raise the quality of ECED services, the Gol actively encourages PAUD centers to become accredited (Box 2).** The MoECRT and the Ministry of Religious Affairs (MoRA) oversee Indonesia's education system (Denboba, Hasan, and Wodon 2015), while BAN PAUD and PNF are authorized to accredit ECED institutions. As an independent evaluation body, BAN PAUD and PNF support the Gol's role in helping families to make the best choices for their children (Yuliantina 2020). Each year, BAN PAUD and PNF establish a quota to target the number of PAUD centers to become accredited (BAN PAUD and PNF 2021b). It is worth noting that the PAUD center accreditation rate nearly doubled from 22.5 percent in 2018 (Won and Adriany 2020) to 44.0 percent in 2021 despite the challenges posed by the COVID-19 pandemic.

**An analysis of factors that influence whether and how PAUD centers participate in the accreditation system is helpful to inform continuous quality improvement of Indonesia's ECED services.** Ensuring quality service delivery is challenging in Indonesia's highly decentralized system (World Bank 2020). Due to the country's vast size and diversity and the differential challenges facing under-resourced communities, it is helpful to understand the perceptions of PAUD center principals who directly experience the accreditation process. Such insight may inform BAN PAUD and PNF's improvements to accreditation mechanisms, thereby further increasing the rate of participation in the short and medium term.

<sup>6</sup> It is worth noting that "ECED program" is translated into Bahasa as *Pendidikan Anak Usia Dini* (PAUD); in this report, ECED centers are referred to as PAUD centers. Whereas the scope of a PAUD is from birth to 6 years old (Ministry of Women's Empowerment and Child Protection 2021), the phase from ages 3 to 6 emphasizes preparation for primary education.

## Box 2: Accreditation is Paramount for ECED Quality Assurance

**Globally, high-quality ECED systems that support children’s holistic development play a critical role in preparing children for primary education and lifelong learning.** Government quality standards articulate the process and structural elements that characterize “quality” settings and experiences for young children (Britto, Yoshikawa, and Boller 2011; Connors and Morris 2015; Raikes, Neuman, and Burton 2019). *Process quality* emphasizes relationships and interactions with teachers and peers, whereas *structural quality* includes recommended staff qualifications, group size, child-staff ratios, the amount of space per child, safe environments, and other similar quantifiable elements articulated in government regulations and policies (UNICEF 2019). Process quality is measured through instruments like the Early Childhood Environment Rating Scale® (Revised), the Classroom Assessment Scoring System™, and the Measure of Early Learning Environments, whereas structural elements are more likely to be measured through policies, work samples, records, and review of physical space (Iruka and Forry 2018). Due to the importance of both process and structural quality, tools like TEACH ECE, a World Bank observation tool designed for classrooms in LMICs serving children aged 3–6 to monitor and improve teaching quality, measure both (Pushparatnam et al. 2021). ECED systems that support and measure high-quality early learning settings are the exception rather than the norm throughout the world, however (Britto, Yoshikawa, and Boller 2011; Kagan and Landsberg 2019). Quality provision of ECED services can be especially challenging in impoverished, rural contexts (Brinkman et al. 2017a). LMICs face unique challenges in monitoring service quality and developing quality assurance systems due to issues like limited capacity and resources and having a large, unregulated private provision without incentives or enforcement mechanisms (UNICEF 2019). In these countries, most principals lack a strong pedagogical background and management skills, which may create barriers to quality improvement in ECED centers (Bendini and Devercelli 2022).

**The GoI’s ECED accreditation process is fundamental for ensuring quality service provision throughout the country.** Accreditation is “a continuous process of self-evaluation, reflection, and improvement of education in an educational institution” (Purba et al. 2022, p. 135). In general, accreditation incorporates a set of standards and instruments, as well as the accompanying processes by which to evaluate and improve the quality of early learning experiences for young children (Raikes, Neuman, and Burton 2019). To optimize ECED, the standards established by accrediting organizations or governing bodies exceed the minimum regulatory requirements. These standards provide clarity and focus for the curriculum and teaching and help early educators to assess children’s knowledge and development as they grow. They also articulate structural quality, like the education qualifications of staff, infrastructure and learning environment, and process quality — for example, interactions between adults and children. Achieving accreditation in the Indonesian ECED system involves an application, self-assessment against the quality standards, documentation, and an on-site verification and evaluation by experts that the quality standards are met. Importantly, the three accreditation instruments used during this process are aligned with the MoECRT’s quality assurance framework per government regulation No. 9/2022 on Education System Evaluation. This policy strategy ensures a systematic, integrated process for developing standards, guidelines (*pedoman*), and other policy products to realize quality education at the unit level. The Indonesian ECED accreditation process rates the quality of early learning settings at three levels (A, B, and C, with A representing the highest quality rating) with the intent of improving children’s development outcomes. Institutions achieving accreditation at the A level are incentivized by opportunities to apply for governmental grant funding assistance not otherwise available. Accreditation regulations apply to both public and private ECED centers to ensure equity in the quality of early education throughout the country (Aminah and Amiliya 2021). Given the current accreditation rate, it is estimated that more than one-half of preschool-aged children in Indonesia attend centers whose quality is unknown (Aboud et al. 2016).

**Existing evidence indicates that PAUD center participation in accreditation is hindered by factors such as limited infrastructure, lack of understanding of the requirements and procedures, and perceptions that applying for accreditation is time-consuming and intimidating.** For instance, in a study of PAUD centers engaged in the accreditation process in Bandung, West Java, Won and Adriany (2020) found that institutions' readiness for accreditation was hindered by principals' and teachers' anxiety about the process and limited familiarity with the national standards or accreditation procedures. In another study in North Cimahi Sub-district (also in West Java), PAUD centers' limited infrastructure, funding, and knowledge of how to prepare accreditation documents were deemed key barriers to seeking accreditation (Muldiani et al. 2020). Additional obstacles include centers where the administrative management is also held by teachers or where staff lack credentials in ECE (Musa and Uthartianty 2019). To improve the quality of PAUD centers, an understanding of participants' perspectives and experiences is deemed valuable (Won and Adriany 2020).

**The World Bank is providing the MoECRT technical assistance and advice to improve Indonesia's ECED system.** This work is aligned with the Human Capital Project, a global effort of the World Bank to increase investments in people to improve equity and economic outcomes (World Bank 2021a). Over the past two decades, the World Bank has supported the Gol to expand

enrollment in preschool education and provide training for early childhood educators. As part of this long-lasting engagement, the Learning for Human Capital Development Programmatic Advisory Services and Analytics (PASA) was launched in 2019 in mutual agreement between the World Bank, the MoECRT, and the MoRA; it includes a pillar in ECED.

**Supported by the Learning for Human Capital Development PASA, this study was conducted to inform further improvements to Indonesia's ECED accreditation system.** Specifically, PAUD centers' principals were surveyed to learn their perceived barriers and facilitating factors (or challenges) pertaining to participation in accreditation. The objective was to inform policy and practice decisions that ultimately strengthen the ECED accreditation system and related activities at the national, provincial, and local levels.

**This report presents the findings from the abovementioned ECED accreditation system assessment and is organized in four main sections after an introduction.** Section I describes the study's background and the country context, with emphasis on the ECED system and its quality assurance mechanisms. Section II details the methodology used. Section III presents a summary of the survey results. Section IV discusses the implications of the findings and outlines recommendations to inform accreditation policies and programs.



# BACKGROUND

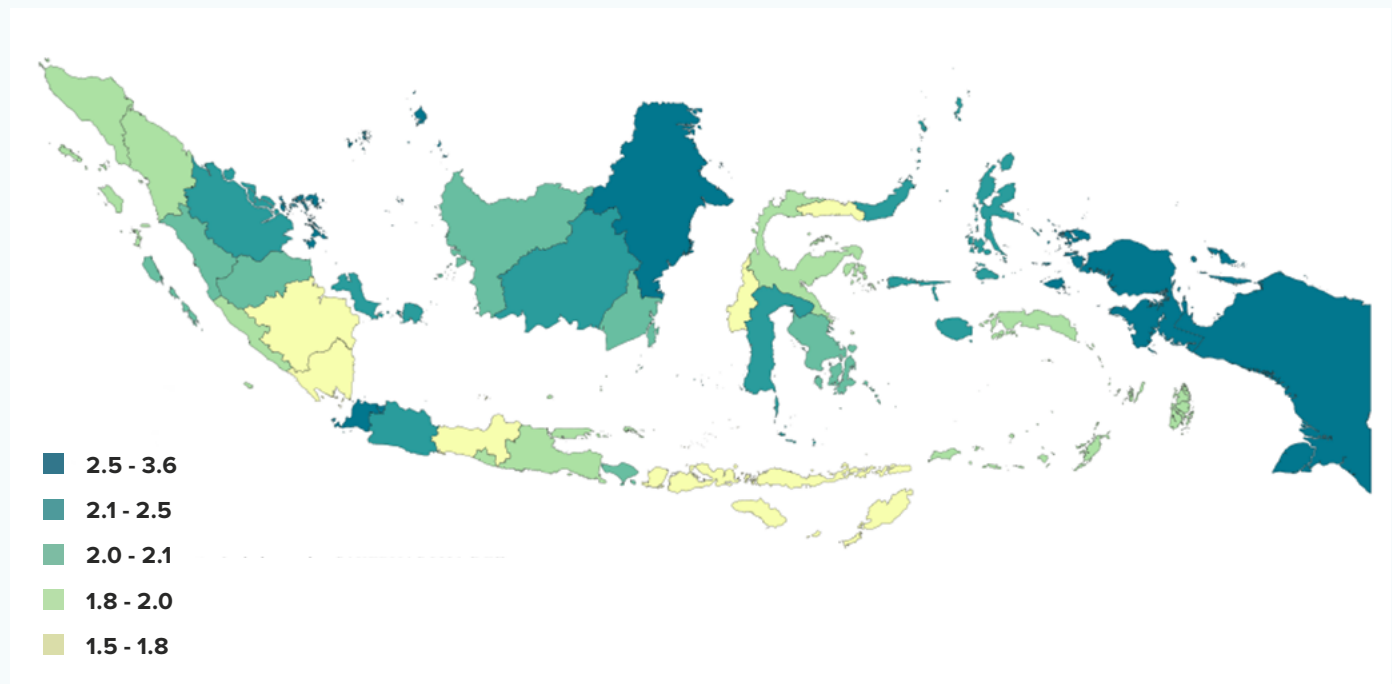
## Country Context

**Indonesia is a large and diverse country.** With 279 million people (UNFPA 2022), it is Southeast Asia's most populated and the world's fourth most populated nation. Its populace is very young: one-half of Indonesians are under the age of 30 (World Bank 2020). Indonesia's 80 million children constitute one-third of the population, ranking it the world's fourth largest child population (UNICEF 2020). The country has more than 700 distinct ethnic and linguistic groups. Most people (87 percent) are Muslim, making it the most populous Muslim-majority nation in the world (World Bank 2020). Also, the largest archipelagic state, Indonesia consists of more than 17,000 islands spanning over 5,000 kilometers, east to west, and three time zones. The country is organized into 38 provinces and 7,252 districts, with 60 percent of the population living in the four provinces of the island of Java (Banten, West Java, Central Java, and East Java).

**In recent decades, Indonesia's economy accelerated strongly due to government policy, its natural resource endowment, and the young and growing workforce.** The third largest democracy in the world, Indonesia has made significant gains in poverty and stunting reduction, increased access to the Internet, and expansion of the education system (World Bank 2019). It has emerged as a confident LMIC and the world's tenth largest economy, with a gross national income per capita of US\$4,291.80 (World Bank 2021c). If growth rates continue as projected, Indonesia will become the fourth largest world economy by 2050 (PwC 2017).



**Figure 1: Average nominal monthly income (millions) by province (2021)**



Source: World Bank staff calculations using SAKERNAS 2021 (LFS)

**Within Indonesia, however, significant differences arise in income by spatial dimension.** Poverty rates are higher in rural than urban areas (13 percent and 7 percent of households, respectively) (UNICEF 2020). The economic impacts of the COVID19 pandemic have resulted in Indonesia's income status falling from upper-middle to lower-middle as well as reversing recent progress in poverty reduction, from 9.2 percent in September 2019 to 9.7 percent in September 2021 (World Bank 2022c). These impacts have been felt hardest by children. Though representing one-third of the population, nearly 40 percent of those who fell below the poverty line in 2020 were children (UNICEF 2021a). Incomes also differ by province. The highest average nominal monthly incomes are concentrated in North and East Kalimantan, Papua, and Banten. The lowest are found in South Sumatra and Lampung, Central Java, West Sulawesi, Gorontalo, and Nusa Tenggara (Figure 1).

**Indonesia's education system is the fourth largest in the world, but faces various challenges.** More than 340,000 schools and other learning institutions across 500 districts serve more than 50 million students in primary and secondary education. Since 1999, Indonesia has decentralized most of the education system, making oversight and coordination of multiple actors at the central, provincial, district, and local school levels challenging (World Bank 2020). Though decentralization is appropriate for a large system such as Indonesia's, it also has the potential to disproportionately affect smaller and more rural districts with low capacity to fund and oversee schools and

student learning (Al-Samarrai 2013). Following decades of education reform initiatives, compulsory education has expanded to 12 years of schooling offered to children aged 7 to 18 (World Bank 2020). Currently, preprimary education is neither compulsory nor free, though the Gol is moving toward one year of universal participation in preprimary education (UNESCO 2017). While the Gol has made significant improvements to the education system, including access and educational attainment, Indonesia lags behind many countries in student learning outcomes. For example, Indonesian students scored lower than the OECD (Organisation for Economic Co-operation and Development) average on the 2018 Program for International Student Assessment (PISA) in reading, mathematics, and science, with only 30 percent meeting the basic level of literacy proficiency (OECD 2019). Disparities in student learning outcomes exist between regions and schools as well as within schools. In general, students who attend schools located in wealthier, urban regions perform higher on national examinations compared to those in less affluent, rural districts (World Bank 2020).

**The national education system consists of formal, nonformal, and informal education.** Based on the National Education Law No. 20/2003, formal education is overseen by the MoECRT and the MoRA and comprises different levels (Figure 2): (a) preprimary education, which is provided in institutions including kindergartens; (b) six years of primary education (*Pendidikan Dasar*); (c) three years of junior secondary education (*Pendidikan Dasar*); (d) three years of senior secondary education (*Pendidikan*

*Menengah*); and (e) postsecondary and higher education (*Pendidikan Tinggi*). The formal system serves 53.1 million children in primary and secondary education and employs 3.3 million teachers (World Bank 2020). The MoECRT and the MoRA also oversee nonformal education (for example, the education provided through playgroups), which are

offered to the public as a substitute for, addition to, and/or complement to formal education (World Bank 2020). Together, formal and nonformal ECED services support the early learning of 7.4 million children across more than 231,000 centers (World Bank 2020). Informal education is considered the one provided by families, for example.

**Figure 2:** Levels of formal education in Indonesia by age and year of schooling

Age	School/Education Level	
>22	Postsecondary and Tertiary	
19-22	Higher Education	
16-18	Senior Secondary	
	General	Vocational
13-15	Junior Secondary	
7-12	Primary School	
4-6	Kindergarten	
0-3	Day Care Centers	

Source: Modified from Purnastuti and Izzaty (2016).

## Early Childhood Education and Development in Indonesia

**Early childhood investment yields strong returns on children’s healthy growth and development and the quality of learning in later years.** Interventions include early stimulation, nutrition and parent education programs, and quality ECE (Filantropi Indonesia 2021). Employing a multisectoral approach aims to address the prevalence of childhood stunting throughout the country—defined by the World Health Organization (WHO 2015) as “the impaired growth and development resulting from poor nutrition, repeated infection, and inadequate psychosocial stimulation”—and achievement gaps by poverty, disability, or other vulnerable populations. Although Indonesia’s rate of childhood stunting decreased in recent years, it remains high at a national average of 24.4 percent in

2021, with children of low-income families most affected (Ministry of Health Republic of Indonesia 2021). This presents a significant public health concern, as children who demonstrate signs of stunting are likely to have delays in cognitive development (Crookston et al. 2011). Stunting also results in economic loss to the nation. In 2017, the Gol launched a US\$14.6 billion National Strategy to Accelerate Stunting Prevention (*StraNas Stunting*), with each dollar spent expected to yield US\$48 in economic return (World Bank 2018). Among the basic social services aimed to address stunting, PAUD centers provide early stimulation for children from birth to six years old to support their cognitive, physical, and spiritual development (World Bank 2021b).

**Indonesian ECED services vary in format and oversight throughout the country.** In many countries, ECED refers to “a range of processes and mechanisms that sustain, support and aid in the holistic development of children, from birth to age 8 years” (UNESCO and UNICEF 2012, p. 4). In the context of Indonesia, these services are offered for children from birth to six years old. In Indonesia, ECED services are delivered through the so-called formal and nonformal streams: (a) formal relates to services delivered in kindergartens (*Taman Kanak-kanak* or TK) and Islamic ECED centers (*Raudhatul Athfal* or RA); and (b) nonformal corresponds to services delivered in playgroups and daycare centers. Both the MoECRT and the MoRA oversee the delivery of formal services, but differences exist in the management and funding of their institutions (World Bank 2020). Common types of programs for children from birth to six years old include toddler family groups (*Bina Keluarga Balita*), playgroups (*Kelompok Bermain*), daycare centers (*Tempat Penitipan Anak*) (which are often located in urban centers), and TK and RA serving children aged 4 to 6. Because the Indonesian education system is decentralized, more than 500 district-level governments are responsible for administration and delivery, while the central government is in charge of system oversight.

**The governance of Indonesia’s ECED system is shared by different institutions, including the MoECRT, the MoRA, the MoHA (Ministry of Home Affairs), and the National Population and Family Planning Board (*Badan***

**Kependudukan dan Keluarga Berencana Nasional or BKKBN).** According to BAN PAUD and PNF, nearly all (99 percent) of the 253,075 registered centers are privately managed, established by and for the community, and funded through both government subsidies and fees charged to parents. The large percentage of private institutions presents a challenge for the Gol to ensure children’s equitable access to preprimary education (Iskandar 2020). Table 1 provides an overview of the types of services and their responsible organization.

**The Indonesian national ECED curriculum promotes whole child development.** In 2013, the Ministry of Education and Culture (now MoECRT) established a framework for early learning and development in six domains: (a) religious and moral values; (b) physical and motor skills; (c) cognitive skills; (d) language skills; (e) socioemotional development; and (f) artistic development (MoEC 2015). These domains are addressed in the eight MSS under the *content* and *process* standards to ensure the quality of ECED services. Specifically, the *content* standard emphasizes child-centered, play-based learning and the *process* standard entails the planning, implementation, and evaluation of learning experiences in the format of daily, monthly, and annual lesson plans. Importantly, the national standards and curriculum apply universally to formal and nonformal ECED services, such as playgroups and daycare services (Denboba, Hasan, and Wodon 2015). In late 2019, the Gol initiated a series

**Table 1:** Types of formal and nonformal ECED services in Indonesia

Type	MoECRT	MoRA	MoHA	BKKBN
Formal	Kindergartens ( <i>Taman Kanak-kanak</i> )	Islamic Kindergartens ( <i>Raudhatul Athfal</i> )		
Nonformal	Daycare Centers ( <i>Tempat Penitipan Anak</i> )  Units for Integrated Programs for Children Under Five ( <i>Pos PAUD</i> )  Playgroups ( <i>Kelompok Bermain</i> )  Other ECED Units ( <i>Satuan PAUD Sejenis</i> )	Islamic Kindergarten ( <i>Taman Pendidikan Quran</i> )	Integrated Health Service Units ( <i>Pos Pelayanan Terpadu, Posyandu</i> )	Toddler Family Groups ( <i>Bina Keluarga Balita</i> )

Source: Denboba, Hasan, and Wodon 2015; Hasan, Hyson, and Chang 2013; World Bank 2020.



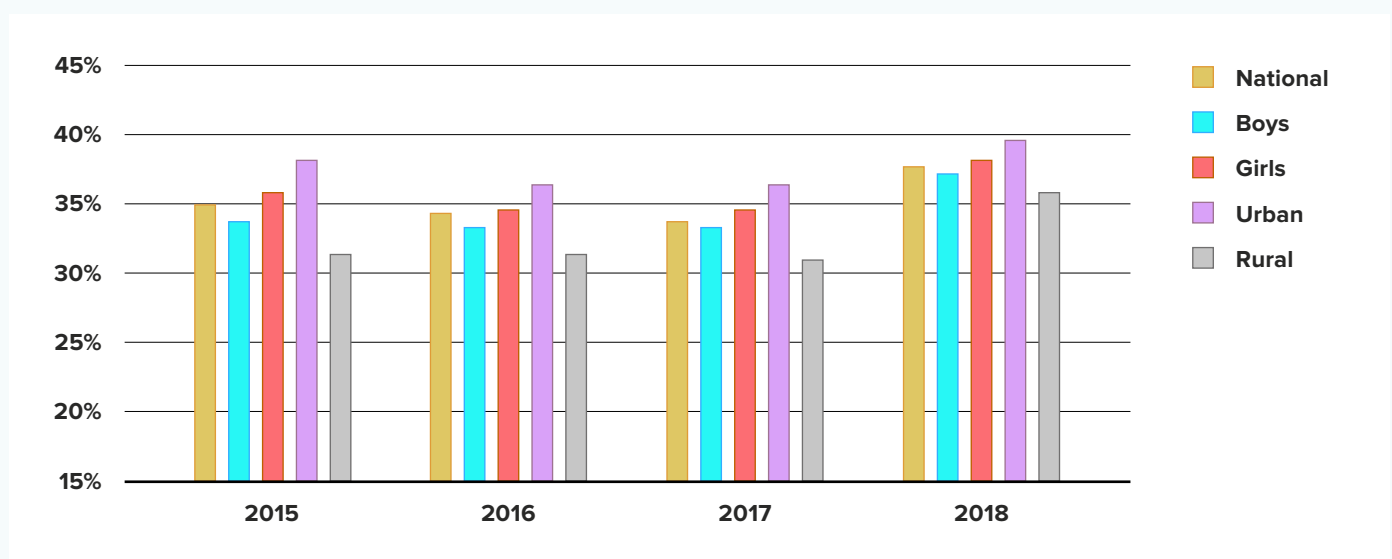
of education reforms known as Emancipated Learning (*Merdeka Belajar*) with the overarching goal of improving learning outcomes and promoting quality, equitable education for all (Randall et al. 2022). Among these reforms is an ambitious new curriculum entitled Emancipated Curriculum (Kurikulum Merdeka or KM) that emphasizes the importance of ECE as a foundation for future learning (MoECRT 2022a). As of May 2023, this new curriculum serves as an alternative to the 2013 national curriculum and its adoption is optional.

**The quality of Indonesian PAUD centers varies across districts.** Due to their varying institutional capacities and socioeconomic and geographic conditions, many districts struggle to deliver education services effectively and efficiently, especially in remote and hard-to-reach locations (World Bank 2020). Many PAUD centers operate in private homes or garages or in conjunction with other social services providers like health care centers. Most have limited space for play and few stimulating learning materials and toys (Iskandar 2020). Teacher qualifications are limited (for example, only 32 percent of preschool teachers have a diploma or Bachelor's degree in education), and teacher salaries are low (UNICEF 2020). PAUD centers also often have volunteer teachers who have had little to no training (Brinkman et al. 2017a). The academic achievement of school leaders has also been identified as critical to school and system improvement (Day, Gu, and Sammons 2016), but little research has been conducted on Indonesian school leadership and principal preparation (Sumintono et al. 2015). Government policies, poor coordination channels, inadequate educational

facilities and infrastructure, and lack of school, parent, and community support may also be barriers to quality early learning programs in the country (Kurniah, Andreswari, and Kusumah 2019).

**Participation in preprimary education remains much lower for younger cohorts.** Although the GoI has implemented strategies to ensure equitable access to PAUDs for the nation's 33 million children aged 0 to 6 years, for example by integrating ECED programs with other government services, only 34 percent of children access early learning programs (MoEC Center for Educational and Cultural Data and Statistics 2019). The GER in preschool for the age cohort 3 to 6 years is 37 percent<sup>7</sup> and 50 percent for the cohort aged 4 to 6 years (compared to 55 percent for children aged 5 to 6). In rural areas, children aged 4 to 6 have a lower enrollment rate than those in urban areas (47 percent versus 52 percent). Similarly, children from families in the bottom third consumption quantile have a lower enrollment rate (44 percent) than those in the top third (58 percent) and middle third (49 percent) quantiles. This means children in rural areas and in poor households have lower chances of attending any kind of ECED service at preprimary age and are more likely to enter primary school education unready to learn and develop. Disadvantaged groups, such as those living with disabilities and members of ethnic or linguistic minorities, also face disproportionate barriers to ECED access. These disparities in access and achievement thus continue—and even widen—later in the education system. Figure 3 depicts the GER for ECE for children aged 3 to 6 years between 2015 and 2018.

**Figure 3: Gross enrollment ratio for children aged 3 to 6 (2015–2018)**



Source: Filantropi Indonesia (2021).

<sup>7</sup> MoEC's DAPODIK (Basic Education Data or *Data Pokok Pendidikan*) estimates the actual preprimary enrollment rate for three- to six-year-olds at 38.8 percent for 2018, while SUSENAS estimates it at 37.3 percent.

# Accreditation and Quality Assurance in Indonesia

**Accreditation plays an important role in the quality assurance of ECED services in Indonesia.** In 2008, the Gol launched an accreditation process to ensure the quality and a systematic monitoring of ECED institutions (Won and Adriany 2020). Based on the Education Law No. 20/2003, accreditation serves as a public accountability measure in which education institutions are evaluated against a set of transparent criteria (Government of the Republic of Indonesia 2003). Eight overarching National Education Standards (SNP) outline minimum criteria that must be met by education institutions at all levels. The standards areas include: (a) student outcomes; (b) content standards; (c) process standards; (d) educators and education personnel standards; (e) facilities and infrastructure standards; (f) management standards; (g) financing standards; and (h) educational assessment standards. More recently in 2021, the Gol established a government regulation (Peraturan Pemerintah Republik Indonesia No. 57/2021) that aims to ensure that national standards have been met, specifically regarding the certification of staff, by PAUD centers offering ECE. Overseen by BAN PAUD and PNF, the accreditation system serves as a monitoring framework at the central level (Aminah and Amiliya 2021). Accreditation results also provide valuable data for local government officials responsible for ECED quality assurance and for the individual ECED institutions to support quality improvement (World Bank 2020).

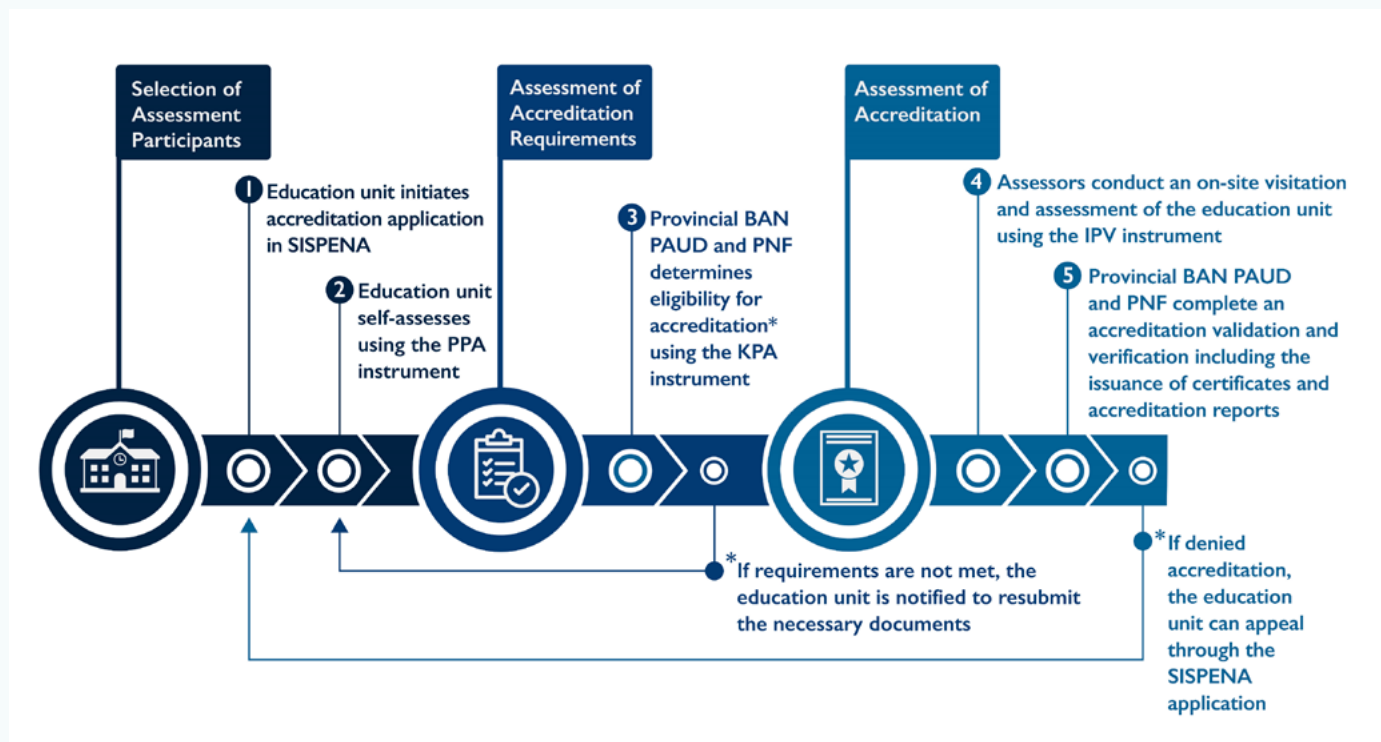
**Since its establishment in 2006, BAN-PNF (now BAN PAUD and PNF) has periodically updated the national accreditation process to support the scaling of quality learning in response to changing needs and developments.** Beginning in 2019, BAN PAUD and PNF implemented several improvements to the accreditation process. These have included: (a) revision of accreditation instruments to promote quality improvement rather than verifying compliance with standards; (b) increasing the competence of assessors; (c) improving the accreditation application system to include the creation of a monitoring dashboard; and (d) enhancing data integration between systems (Yuliantina 2020). Guided by a review of the international literature on early learning quality, new indicators were added to the instruments. The improved accreditation system measures 24 quality indicators, a substantial reduction from the previous set of 60 indicators, according to BAN PAUD and PNF. Further, the COVID-19 pandemic in 2020 led BAN PAUD and PNF to place a temporary accreditation moratorium and focus on enhancing the competence of assessors. Competency tests were introduced to measure assessors' understanding of the improved accreditation instruments and ensure

they are prepared to objectively assess the quality of an educational institution (Purba et al. 2022). Building on these improvements, BAN PAUD and PNF formulated a follow-up plan for 2022 to include the implementation of offline visits, strengthening assessor training and the number of assessor assignments, and continued efforts to increase the effectiveness of data integration (Hasain 2021).

**The accreditation process entails three phases and includes a self-assessment and site visit.** BAN PAUD and PNF organize the mechanism of accreditation in the following overarching phases during which specific accreditation activities occur: (a) selection of assessment participants; (b) assessment of accreditation requirements; and (c) assessment of accreditation (Figure 4). Phase One, the selection of assessment participants, begins when PAUD centers register through the MoECRT or the MoRA using the accreditation online portal Accreditation Assessment System (*Sistem Penilaian Akreditasi* or SISPENA), which is hosted by BAN PAUD and PNF and managed at the district level. Registration is the legal authorization to operate and requires two inspections per year to ensure minimum standards are met (Denboba, Hasan, and Wodon 2015). Registered PAUD centers are included in the MoECRT's platform named DAPODIK (Basic Education Data or *Data Pokok Pendidikan*), which collects nationwide data on schools, teachers, and students. Unique unit identification numbers (*Nomor Pokok Satuan Pendidikan* or NPSN) are assigned to the PAUD center, which allows the data in DAPODIK to sync with the accreditation data in SISPENA (Purba et al. 2022). Once registered with BAN PAUD and PNF, the PAUD center logs into SISPENA to access the accreditation application and directions for completion. Afterward, the PAUD center completes the Accreditation Prerequisite Assessment (*Penilaian Prasyarat Akreditasi* or PPA) instrument, in which the applicant self-assesses the center against the eight national standards following 24 quality indicators (SNP) (see Annex I). The unit also updates data in DAPODIK and uploads required application documents.

Phase Two, the assessment of accreditation requirements, includes the review of the self-assessment by BAN PAUD and PNF using the Accreditation Application Classification (*Komisi Pelaksanaan Akreditasi* or KPA) assessment to measure the minimum standard of eligibility. The estimated timeframe for this activity is 3 days. If the PAUD center submits the required documents and scores 60 percent or higher on the PPA indicators, a visitation assessment is scheduled. If requirements are not met, the education unit is notified to resubmit the necessary documents.

**Figure 4: PAUD center accreditation process**



Phase Three, the assessment of accreditation, includes the accreditation visitation. The provincial BAN PAUD and PNF assigns two assessors to conduct a site visit of the qualified center. The assessors use the Visitation Assessment Instrument (*Instrumen Penilaian Visitasi* or IPV) during which time a report is written. The estimated timeframe for the site visit is 10 days and 5 days for the report. The final activity is accreditation validation and verification. The accreditation assessment results are validated and verified by a validation assessor. The education unit's accreditation level of A, B, or C is established. The estimated timeframe for this activity is 3 days. Within 7 days of receipt of the validation and verification results, a decision letter and accreditation certificate signed by the head of BAN PAUD and PNF are shared with the PAUD center and local education authority. The accreditation status is added to DAPODIK. If denied accreditation, the center can appeal through the SISPENA application. The deadline for filing an appeal is one month (BAN PAUD and PNF 2021b). PAUD centers can submit applications from April to October of every year. According to BAN PAUD and PNF, if a center submits all documentation on time, the accreditation process takes approximately six weeks.

**The ECED accreditation status lasts for five years, after which PAUD centers are expected to apply for reaccreditation.** However, for 2022, BAN PAUD and PNF issued a one-year accreditation extension in provinces with low accreditation rates to prioritize processing of applications from unaccredited centers, given the limited

national budget for accreditation. This was done on an exceptional basis. To assist with implementation of the new accreditation processes and tools, BAN PAUD and PNF (2021b) developed operational guidelines that outline the requirements using the revised instruments along with the respective responsibilities of the provincial BAN PAUD and PNF Secretariat, its members, and assessors for all stages of accreditation (see Annex II). Other institutions play a role in the provision of ECED services in Indonesia, as follows: (a) the MoHA to help ensure that the budget is allocated; (b) the PAUD Ambassador—usually the wife of the Head of Districts/Subdistrict/Village—to advocate for ECED; (c) the Ministry of Villages, Development of Disadvantaged Regions and Transmigration to support the provision of services at the level of villages, including the training of teachers; and (d) BKKBN in the support of early stimulation programs.

**To support accreditation at the provincial level, BAN PAUD and PNF conduct socialization activities that seek to improve the knowledge of various stakeholders about the latest accreditation procedures and tools.**

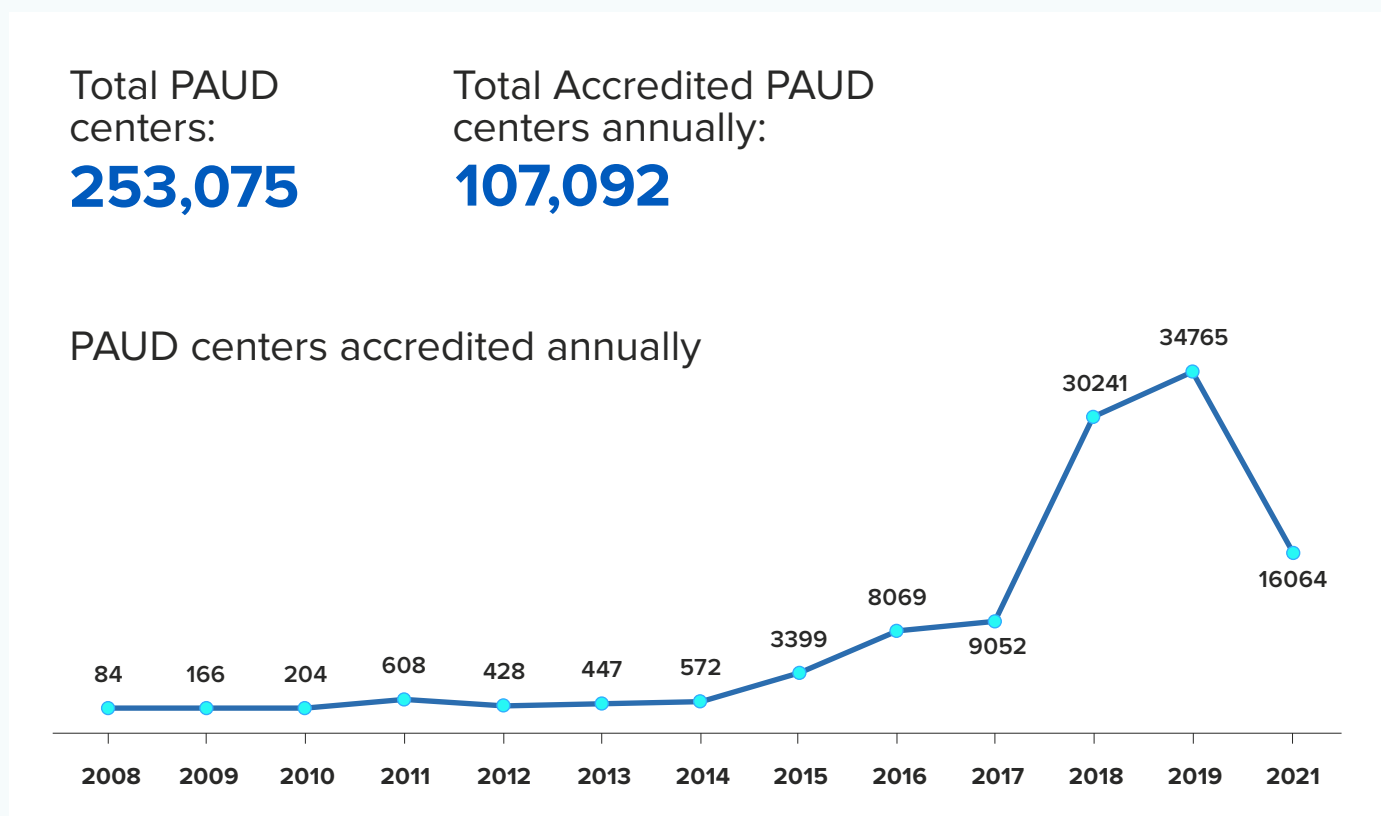
Socialization activities include exchanges through social media and regional coordination meetings (Rakorda) that are attended by various stakeholders, such as the District Education Offices, representatives of the MoECRT and the MoRA at the district level, and partner organizations. Rakorda happen twice a year. At the first Rakorda of every year, participants discuss the quota for accreditation of every province based on the available accreditation

budget, number of assessors, and accreditation rate. The central offices of BAN PAUD and PNF train representatives of the provincial offices of these institutions, as well as representatives of district-level education unit and partner organizations. Socialization entails the mechanisms of the process and accreditation instruments, such as filling out the PPA as a requirement for participating in accreditation, according to BAN PAUD and PNF. BAN PAUD and PNF (2021a) published a guidebook to support implementation of socialization activities in accordance with the annual established quota.

**Since 2014, BAN PAUD and PNF has experienced steady improvements in the rate of accredited PAUD centers.** At the end of 2021 (when official reporting occurs), there were 237,062 registered PAUD centers,<sup>8</sup> of which 44 percent were accredited, nearly double the percentage accredited in 2018 (Won and Adriyani 2020). As mentioned above,

one of the key determinants of the accreditation pace is funding, which is provided by the MoECRT. According to BAN PAUD and PNF, between 2008 and 2014 the accreditation rate basically did not increase because of limited funding and the absence of BAN PAUD offices in provinces. With a higher budget and the establishment of province offices, the rate started increasing in 2014. The establishment of SISPENPA in 2017 led to a substantial increase in the rate in that year. An increase in the rate was observed in 2019 before the start of the COVID-19 pandemic. The highest annual nationwide-set quota to date was 55,000 PAUD centers; however, due to the COVID-19 pandemic, decreased funding, and a moratorium on accreditation in 2020, the quota decreased between 2019 and 2021. Despite this, the total number of accredited PAUD centers has increased from 84 centers in 2008, when accreditation assessments began, to 107,092 centers in 2022 (Figure 5).

**Figure 5: Number of PAUD centers accredited annually (2008–2022)**



**Total accredited PAUD centers by year**

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2021	2022
84	250	454	1,062	1,490	1,937	2,509	5,908	13,977	23,029	53,270	88,035	104,099	107,092

World Bank staff calculations using BAN PAUD PNF March 2022 accreditation internal data.

<sup>8</sup> Note that by March 2022 when this study was conducted, the number of units was 253,075, according to BAN PAUD and PNF.

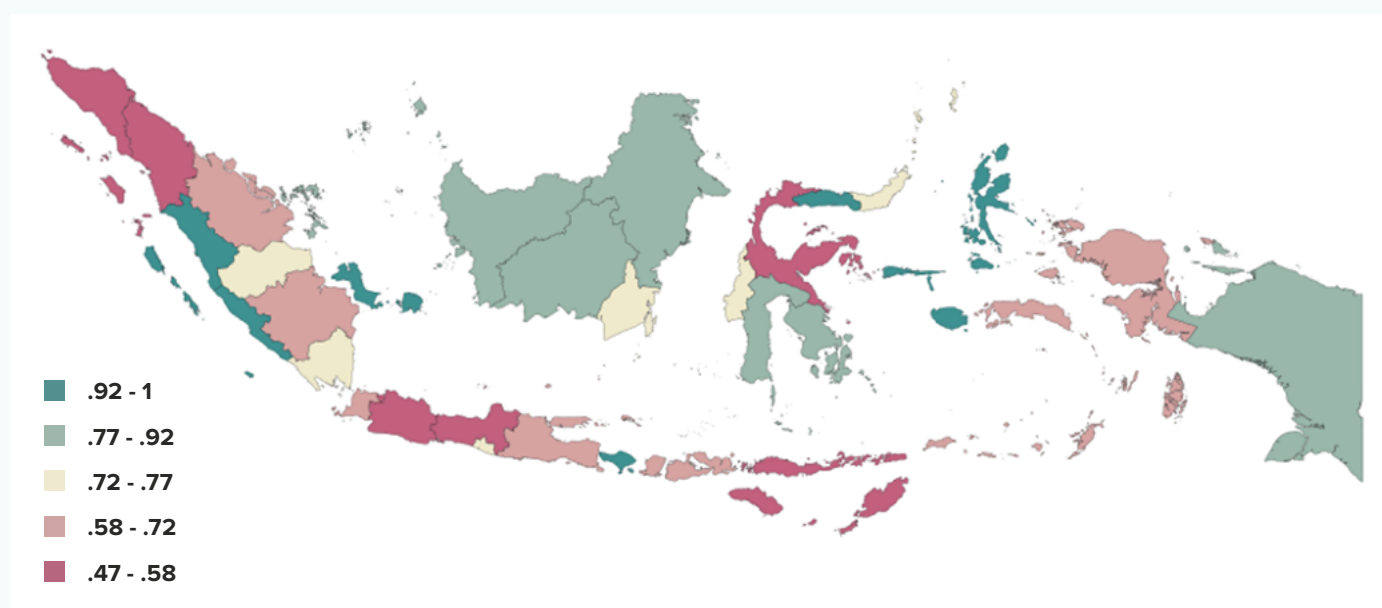




**Accreditation rates vary by province.** According to the BAN PAUD and PNF data, 56 percent of accredited centers are concentrated in Java's provinces (BAN PAUD and PNF 2022). Figure 6 depicts the share of accredited PAUD centers by province. Aceh, North Sumatra (*Sumatera Utara*), some provinces in Java, East Nusa Tenggara (*Nusa Tenggara Timur*), and Central Sulawesi (*Sulawesi Tengah*)

have a lower share of accredited PAUD centers than the rest of Indonesia. Conversely, West Sumatra (*Sumatera Barat*), Bengkulu, Bangka-Belitung, Bali, the Kalimantan provinces, Gorontalo, the Maluku provinces, and Papua have relatively high accreditation shares. Figure 7 highlights the total number of accredited PAUD centers and the accreditation share by province.

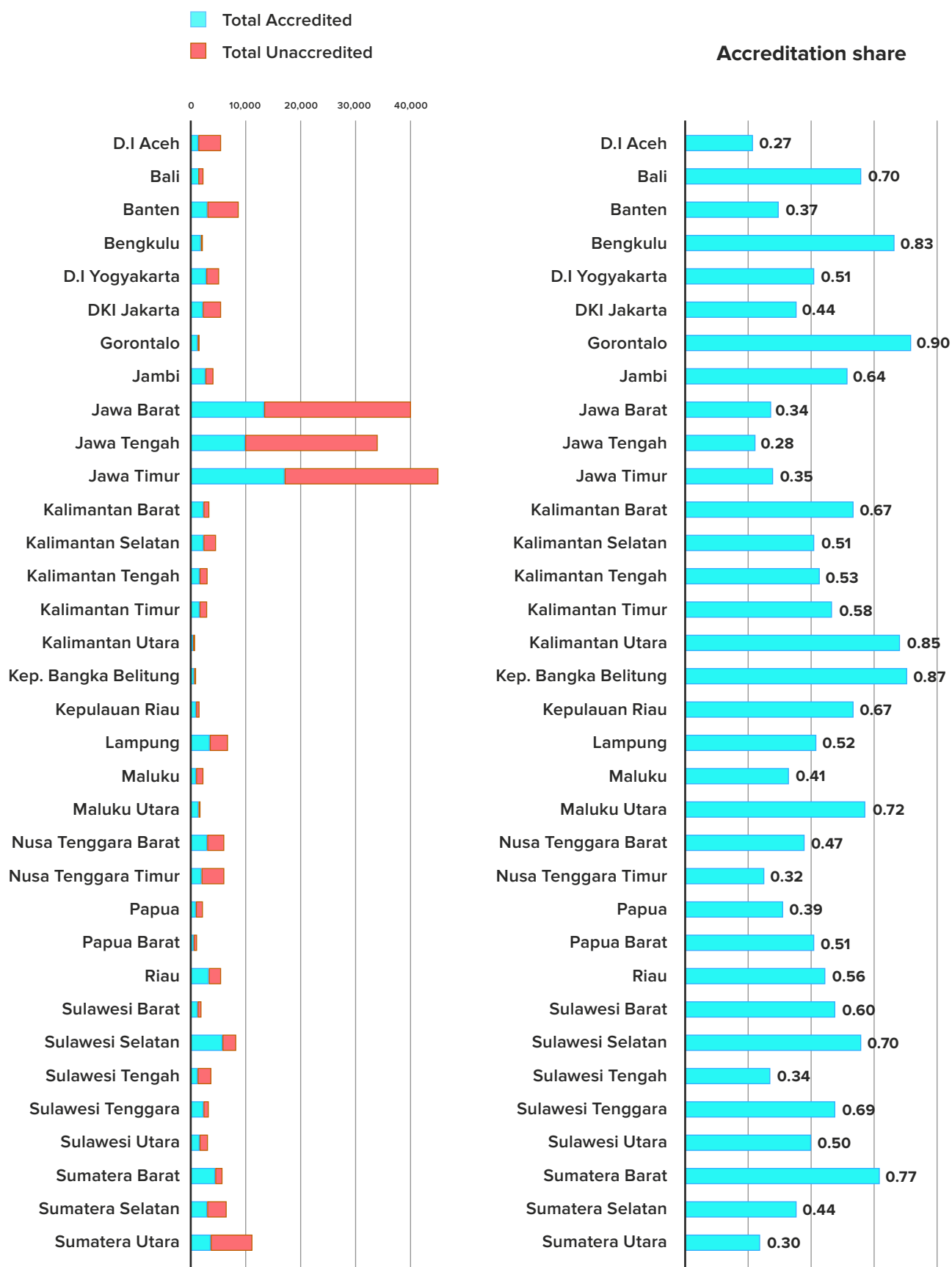
**Figure 6:** PAUD center accreditation share by province



Source: World Bank staff calculations using internal data



Figure 7: PAUD center total accreditation and share by province



Source: World Bank staff calculations using BAN PAUD PNF March 2022 accreditation internal data

### **Indonesian PAUD centers are challenged to meet quality standards due to lack of knowledge and/or capacity.**

Research suggests that many institutions do not know how to prepare for accreditation as they lack information about how to do so (Won and Adriany 2020). Whereas the Indonesian ECED accreditation standards apply universally to formal and nonformal PAUD centers, their different cultural, socioeconomic, and geographic contexts may require varied approaches and levels of support. The ability of the school leader or principal to effectively manage the center and guide teachers impacts readiness and the evaluation of the accreditation assessment. For instance, in a study conducted in the West Bandung district located in West Java, limited infrastructure and weak management were highlighted as the main reasons for low levels of accreditation (Musa and Uthartianty 2019).

**Indonesia's limited ECED budget may also impact participation in accreditation.** ECED financing as a percentage of gross domestic product reached only around 0.04 percent in Indonesia in 2018, which is very low compared to the OECD average of around 0.70 percent (World Bank 2020). Whereas the Gol has a strong national ECED policy, decentralization leaves most of the financing and provision of services to the community and local organizations. Thus, districts have significant authority to allocate ECED funding, with many centers receiving inadequate financial and human support, particularly in impoverished communities (Shaeffer 2016). While families' contributions supplement government funding, ECED-associated fees are out of reach for many parents in a country where 57 percent of children face a high degree of vulnerability and income insecurity, a problem exacerbated by the COVID-19 pandemic (UNICEF 2021b).

### **Centers also face barriers in applying for accreditation.**

This includes understanding the process, having the time and resources (including Internet access) needed to complete the process, and understanding the benefits of being accredited. For example, in a study of two nonaccredited nonformal PAUD centers, personnel expressed a lack of understanding of how to complete accreditation documents and instruments and how to submit them online as barriers to seeking accreditation (Muldiani et al. 2020). In another study of an Islamic kindergarten established in 2010, researchers determined that incomplete administrative documents, lack of evidence of principal supervision, inaccurate DAPODIK data on teaching and education personnel, and other unmet

criteria resulted in the center being unprepared to become accredited (Aminah and Amiliya 2021). Internet access may also create a barrier to accreditation as it is required to access SISPENA, where information about the national standards and the overall accreditation process is available. Although Indonesia's Internet penetration increased in recent years, from 64.8 percent in 2018 to 73.7 percent in 2020, access is largely concentrated in urban areas (Eloksari 2020). Internet accessibility may thus be a barrier to accreditation for PAUD centers located in rural regions. Lastly, perceptions of the accreditation process may hinder participation. For instance, a study of PAUD centers engaged in the accreditation process in Bandung, West Java found that institutions' readiness for accreditation was hindered by principals' and teachers' anxiety about the process (Won and Adriany 2020). Other research suggests that accreditation preparation and the associated documentation requirements are deemed time-consuming for applicants and assessors alike (Purba et al. 2022).

**In summary, over the past two decades, the Gol has scaled up its commitment to supporting children's development and to improving their learning and future life opportunities through various ECED policies and programs.** As families' access to PAUD centers has expanded, the focus is on improving the quality of services that they provide. In a large, diverse country in which 99 percent of PAUD centers are privately managed, it is critical to ensure that all children have equitable access to early learning programs that meet standards for ECED quality. Accreditation acts as a mechanism for overseeing and ensuring the quality of PAUD centers as measured against research-informed national standards emphasizing children's holistic development. Overseen by BAN PAUD and PNF, the ECED accreditation process has been revised over many years in response to changing conditions. Currently, less than one-half of PAUD centers are accredited, thus their quality is unknown. Between 2019 and 2021, BAN PAUD and PNF revised the accreditation instruments, documentation required, and process to enhance PAUD center participation in accreditation. To determine what is working well and what may be improved from the user's perspective, this study was initiated in collaboration between the MoECRT, BAN PAUD and PNF, and the World Bank to provide a nationwide snapshot of PAUD center principals' perspectives and experiences in the accreditation system, with the ultimate goal of helping to improve it.

## II

# METHODOLOGY

## Overview of Survey

**This study aimed to analyze challenges and opportunities for further improving the process for accreditation of ECED institutions in Indonesia.** Its objectives were to: (a) identify the characteristics of PAUD centers and their principals, including key differences between accredited and unaccredited centers; and (b) analyze the perceived barriers and facilitating factors that correlate with accreditation status.

**The study employed a quantitative methodology to collect data from PAUD center principals throughout the country.** In consultation with BAN PAUD and PNF and the MoECRT, the World Bank team developed a quantitative survey of PAUD principals' barriers and facilitating factors for participation in accreditation. The survey instrument was designed to gather information about principal and PAUD center characteristics as they related to the center's accreditation status, as well as principals' perceptions of accreditation, to inform further improvements to the process. The instrument included three sections: (a) information about the PAUD center; (b) information about the principal; and (c) information about accreditation. It included 97 data collection points, comprising both closed- and open-ended questions.

**In February 2022, the World Bank team piloted the survey through a focus group discussion with 24 principals engaged in accreditation (currently accredited or seeking accreditation) and 16 principals of PAUD centers not engaged in the process.** Participants completed the survey and provided feedback on the clarity of the questions, length of completion time, and the relevance of the items. As a result, several items on the survey were eliminated, clarifying language was added to various items, and one question was added to capture data on the accessibility of content resources for seeking accreditation.

**In March 2022, an invitation to complete the online survey was made available to all registered PAUD centers through DAPODIK.** The primary participants were PAUD principals, as they typically maintain the locus of control for participation in accreditation. The survey was open 16 days, after which it was closed, and the data were cleaned.

**After data cleaning, responses of 11,475 principals from registered PAUD were considered.** As of March 2022, 253,075 PAUD centers were registered with the MoECRT or MoRA, thus the respondents comprised 4.5 percent of the total PAUD center population.<sup>9,10</sup>

**Once it was cleaned, the dataset was analyzed to determine key findings.** To support the data analysis, the World Bank team of specialists calculated the differences in characteristics between accredited and unaccredited PAUD centers and their principals. The team then used regression analysis to explore which sources of variation are linked to an increase or decrease in accreditation rates. The effects presented below are not causal, as the survey design in reference did not allow for that. However, the study enabled the determination of correlations about the magnitude of the relationship between potential drivers of accreditation status that might be informative. Annex III presents a detailed technical overview of the process of data analysis.

## Limitations of the Study

**Despite this study's value added to understanding relevant challenges faced in Indonesia's ECED accreditation system, it has some limitations worth mentioning.** First, disparities in Internet access across Indonesian provinces may have impacted the survey response rate. Because the MoECRT relies upon DAPODIK for electronic communications with education institutions and only registered PAUD centers receive such communications, the responses were limited to those that had access to DAPODIK when the MoECRT posted the link to the survey. Second, the reliability of data may be impacted by the completeness and accuracy of open-ended responses, such as PAUD centers' and principals' characteristics. Third, the voluntary nature of the survey may have led to selection bias. For example, principals

having more experience with and/or strong opinions about the accreditation process may have been more likely to respond than principals with less or no engagement in accreditation. Fourth, the principals sample is not representative of their PAUD center populations, although it includes institutions of varying sizes, ownership, and locations. A comparison between this survey's sample and all PAUD centers in Indonesia is not presented in this study because administrative data are not completely available. The administrative data available are limited to the total number of accredited PAUD centers by province. Data on unaccredited PAUD centers are not available unless they applied to become accredited but were unsuccessful. Annex III presents more detailed information on the methodology.

<sup>9</sup> The survey's response rate is considered low and indicates that the data might not properly represent the reality of Indonesia's ECED accreditation system, as it might be subject to selection bias. Principals who are more engaged in their professional tasks, have better access to technology, or are more inclined to complete a task requested by the MoECRT, might also be disproportionately more likely to participate in surveys like the one conducted under this study.

<sup>10</sup> Indonesia is divided into provinces (subdivision level 1), regencies and cities (level 2), districts (level 3), and villages (level 4). At the time of the survey, there were 34 provinces. As of February 2023, there are 38 provinces.



## III

# FINDINGS



This study provides insight about whether and how the characteristics of respondent PAUD centers and their principals correlate with accreditation status, as well as principals' perceptions of the barriers and facilitators to achieving accreditation. The following factors are known to influence educational institutions' participation in and achievement of accreditation standards, including in Indonesia's ECED system: (a) infrastructure and financing; (b) program characteristics; (c) school leadership; (d) relational elements; and (e) quality monitoring and evaluation policies and procedures. These factors are used to structure the presentation of the findings.

First, an overview of the demographics of the study sample organized by geographic context, PAUD center principal characteristics, and PAUD center characteristics is provided. While the survey is not representative of the PAUD center population, the data show the diverse contexts in which young children are nurtured and educated throughout the country. Afterward, a comparison is made of accredited and unaccredited PAUD centers by measures of structural quality. Finally, principals' perceptions of the barriers and facilitating factors to participation in the accreditation process are explored. An analysis of the potential drivers of accreditation status is included.



# Demographics of the Sample

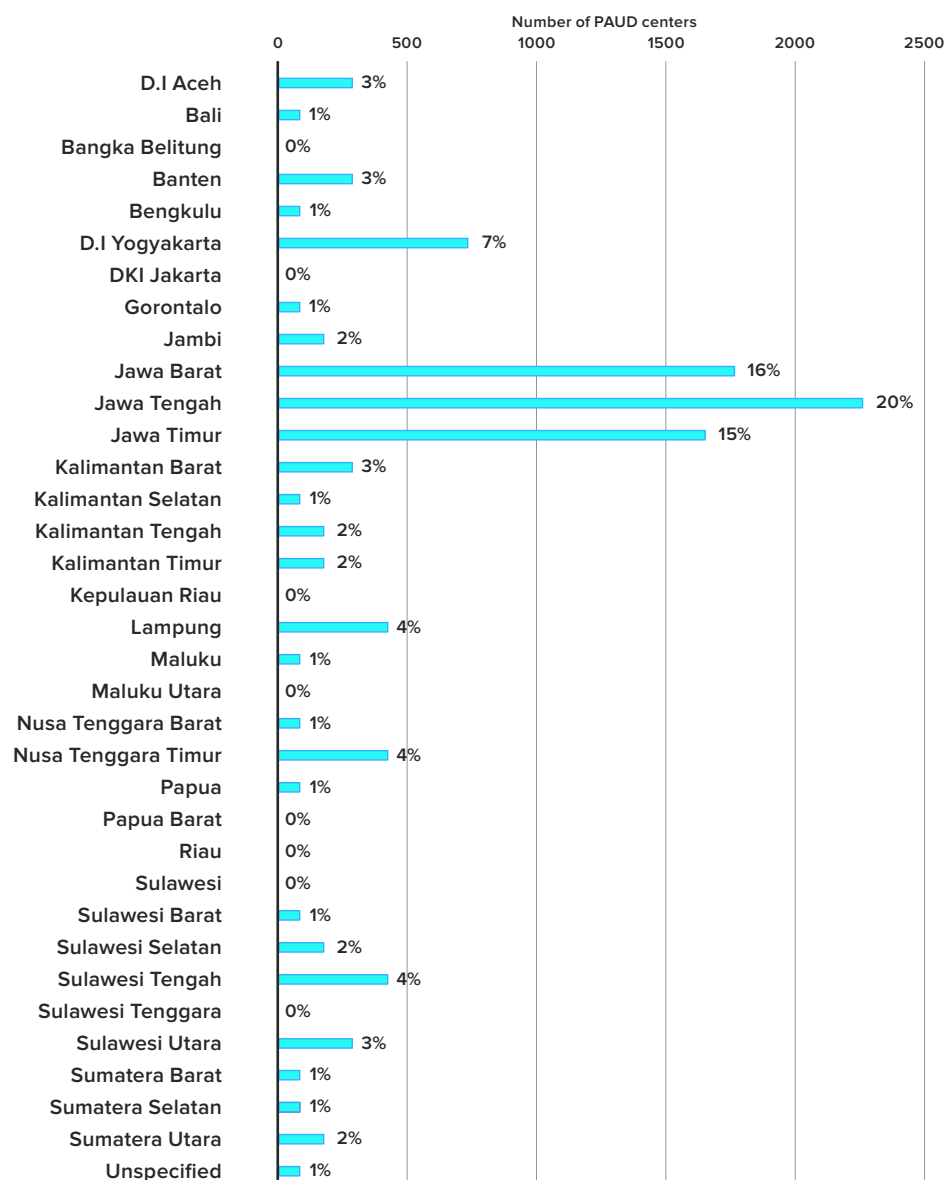
A total of 11,475 PAUD center principals from all Indonesian provinces participated in the survey (4.5 percent response rate). Participant responses reflect the diversity of geographic locations and the country's digital infrastructure, namely disparities in Internet access. They also reveal the variation in PAUD center characteristics and PAUD center school leadership and management throughout the country. Included are the number and roles of school personnel, the academic qualifications of school leaders, child enrollment, and operating hours, which are common measures of structural quality in early learning settings.

## Geographic Context

**Respondents derive from all Indonesian provinces.** One-half (51 percent) of respondents work in West Java, Central Java, and East Java, with the rest located in all other provinces, including remote and lowly populated provinces like Papua (0.8 percent) and West Papua (0.2 percent) (Papua Barat). Figure 8 depicts the number of respondents by province.

**Nearly one-third of all principals report difficulty accessing the Internet.** Of these, 21.7 percent report it to be “difficult” and 7.6 percent “very difficult.” Further, 47.0 percent have not personally used SISPENA, while 12.0 percent and 1.7 percent cite access to be “difficult” and “very difficult,” respectively.

**Figure 8:** Number of survey respondents by province



## PAUD Center Principal Characteristics

Respondent PAUD center principals vary significantly in age, academic qualifications, years of professional experience, and hours worked per week. Principals' ages ranged from 19 to 84 years, with an average age of 44. The average number of years working as a principal at the current PAUD center was 10.5. Three in four principals have earned a Bachelor's degree or higher. On average, principals work 20.7 hours per week at their PAUD center, though more than one-half work 21 or more hours and one in five work less than 10 hours per week. Table 2 highlights the diversity of PAUD center principal characteristics.

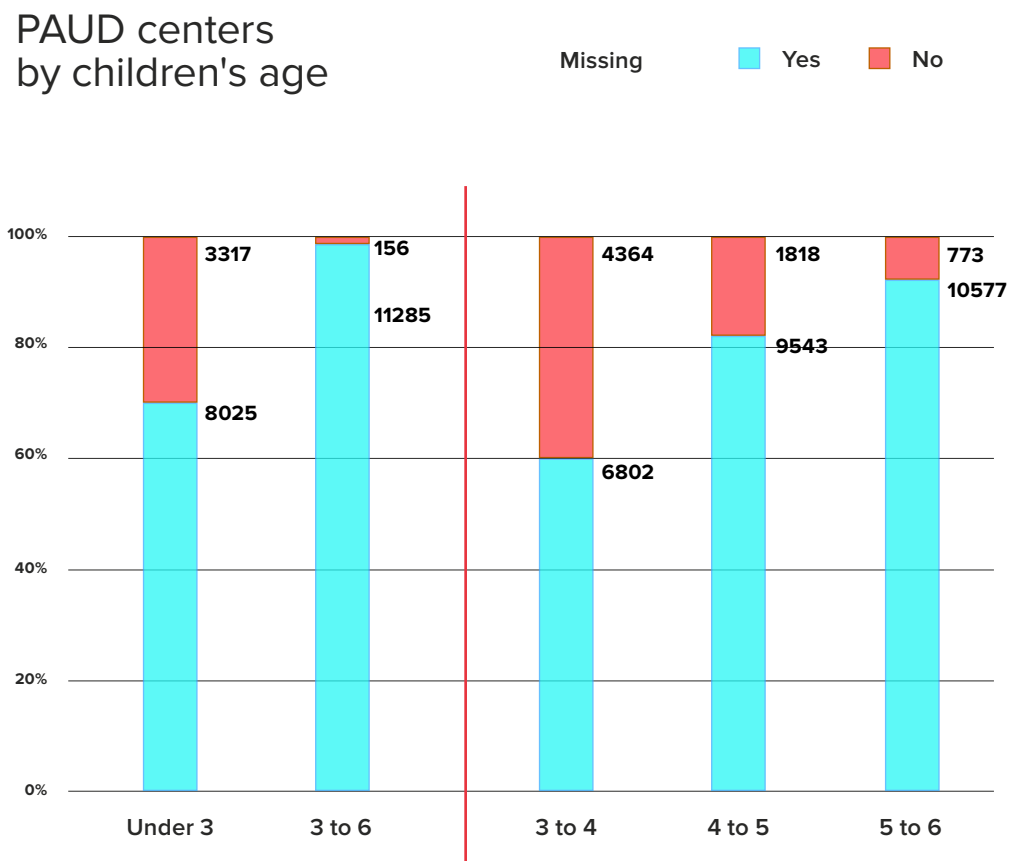
**Table 2:** PAUD center principal characteristics

	Number of respondents	Percentage (%)
<i>Principal Age</i>		
<25 years	130	1.1
25 to 34 years	1,869	16.6
35 to 44 years	3,966	35.0
45 to 54 years	3,869	34.2
55 to 64 years	1,403	12.5
65 to 74 years	68	0.01
75+ years	3	<0.001
<i>Principal's Education</i>		
Not completed high school	136	1.2
High school or equivalent	2,092	18.2
Diploma (1–3 years)	478	4.2
Bachelor's degree (4 years)	8,332	72.6
Master's degree	395	3.4
Ph.D.	4	<0.001
<i>Working Hours at this PAUD Center Per Week</i>		
<11 hours	2,327	20.9
11–20 hours	2,631	23.6
21–30 hours	5,006	45
31–40 hours	812	7.3
41–50 hours	332	3
51+ hours	26	0.2

## PAUD Center Characteristics

PAUD centers likewise differ in their management, funding, personnel, child enrollment, and operating hours. Seventy-three percent of surveyed PAUD centers are privately managed, while 27 percent are publicly managed (or managed by a public education authority, government agency, or municipality). Operational funding derives from a variety of sources: the central government (76 percent); local government (province, district, and subdistrict) (60 percent); parents or guardians (77 percent); nongovernmental organizations (NGOs) (11 percent); benefactors (18 percent); and personal funds (30 percent). Some PAUD centers are very large, with up to 30 teachers, three principals, and more than 200 children, while others have few personnel and children enrolled. The centers serve a variety of age groups: children under age 3 (70 percent); those aged 3 to 4 (71 percent); those aged 4 to 5 (83 percent); and those aged 5 to 6 (92 percent). The vast majority (98 percent) serve children aged 3 to 6 (Figure 9). Sixty-two percent of PAUD centers also report serving children with identified special needs. Hours of operation vary from 1 to 7 days per week, with an average days per week of 5.29 and an average hours per day of 3.43.

**Figure 9:** PAUD centers by children's age



## Accreditation Status and Ranking

**Sixty-five percent of surveyed PAUD centers are currently accredited.** For the 35 percent that indicate they are unaccredited, it is unclear whether they are currently engaged in the accreditation process, were denied accreditation and have filed an appeal, or have yet been unable to be assessed due to limited annual quotas in their region. Accreditation rates vary across provinces, with the lowest in East Nusa Tenggara (*Nusa Tenggara Timur*) (47 percent) and the highest in Bengkulu (97 percent). PAUD centers indicated accreditation rankings at all three levels: A (6.1 percent), B (38.8 percent), and C (18.5 percent), with 36.6 percent unsure or unwilling to respond to this survey item. The year of accreditation ranged from 1995 to 2022, with 80 percent of responses indicating the PAUD center was accredited in the last five years (after which time education units are expected to apply for reaccreditation).

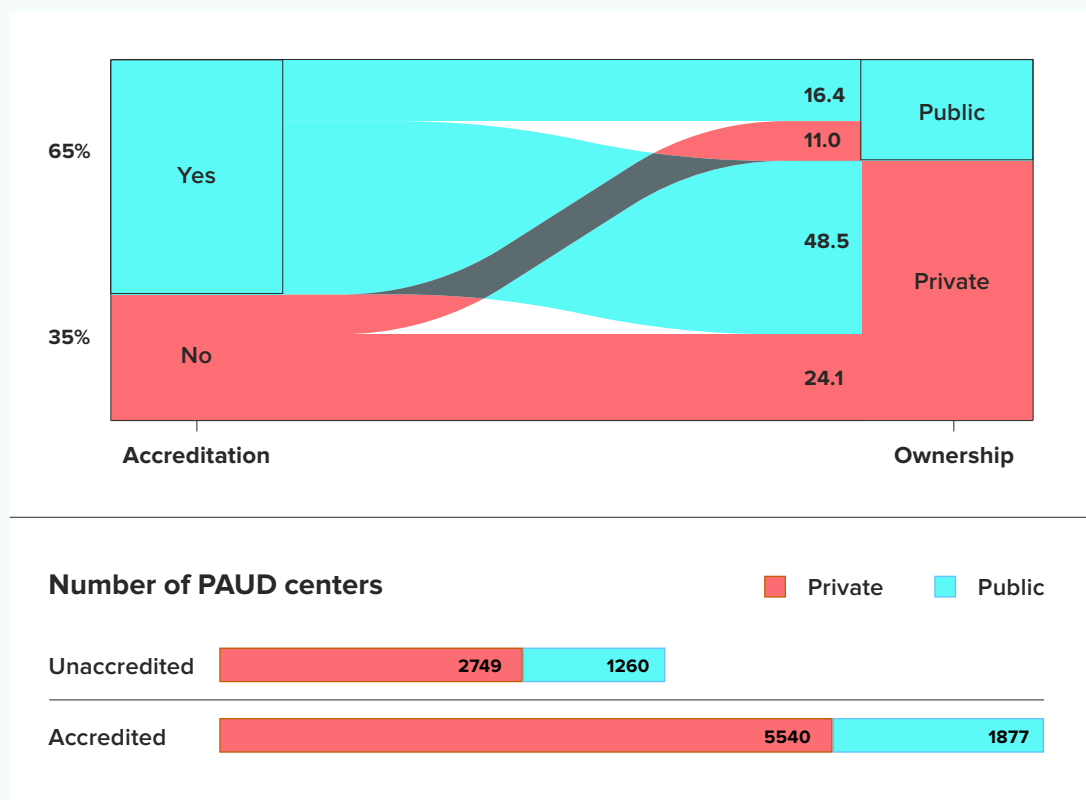
# Comparison of Accredited and Unaccredited PAUD Center Characteristics

In this section, respondent accredited and unaccredited PAUD centers are compared by their structural features to determine whether specific characteristics correlate with accreditation status. Measures of structural quality addressed in the survey include: *infrastructure* and *financing* (for example, management and ownership, funding, and Internet access); *program characteristics* (for example, the number of teachers and other personnel; the number of children served); and school leadership (for example, school leader's academic qualifications, school leader's hours worked per week, and training and professional development). These measures are explored below by theme.

## Infrastructure and Financing

In this study's sample, private PAUD centers are more likely (than their public peers) to achieve accreditation (Figure 10). Accredited PAUD centers are also more likely to be owned by a foundation and less likely to be managed by NGOs, businesses, or other private institutions. They are also more likely to be funded by parents, benefactors, donations, or fundraisers. Accredited PAUD centers are less likely to be financed by personal funds or other programs, however.<sup>11</sup>

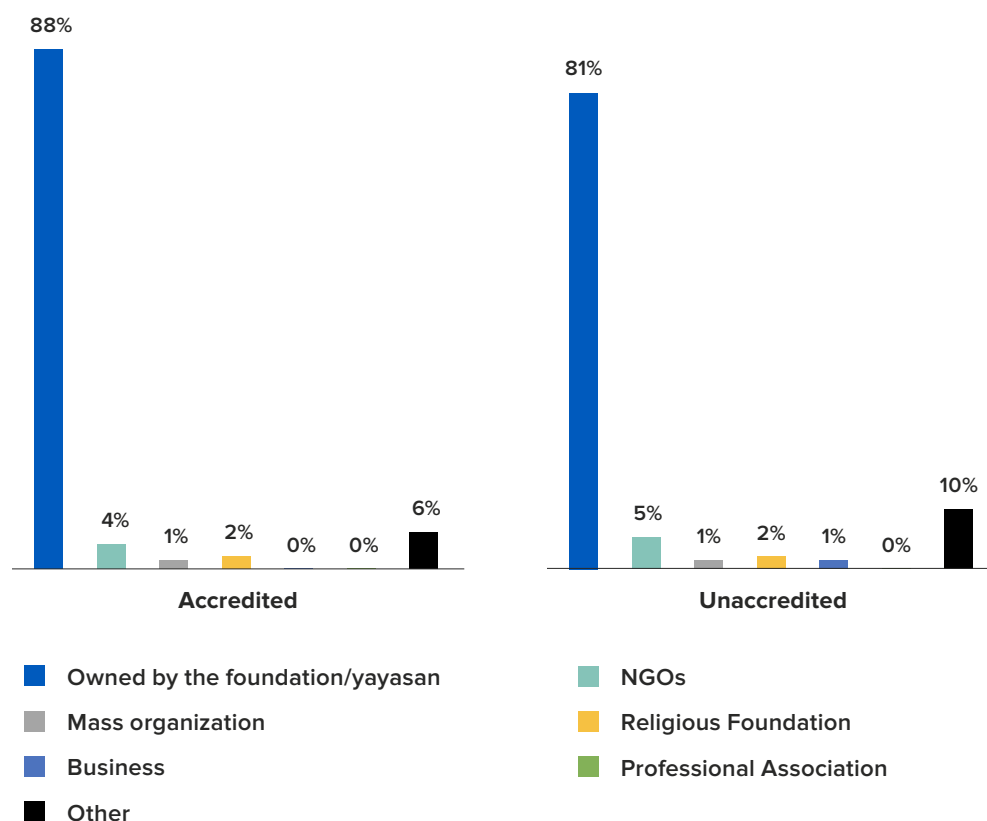
**Figure 10:** Distribution of surveyed PAUD centers by accreditation status and ownership



**More than one-half of PAUD centers are managed by a foundation, though differences in management exist between accredited and unaccredited institutions.** The survey shows that 81 percent of unaccredited PAUD centers are managed by a foundation, compared to 88 percent of accredited institutions. Further, only 5 percent of unaccredited PAUD centers are overseen by NGOs, compared to 4 percent for accredited institutions. Across PAUD centers, around 10 percent are managed by mass organizations, religious foundations, businesses, professional associations, or other private institutions or people. Figure 11 presents the accreditation status by type of organization responsible for day-to-day management.

<sup>11</sup> Table 6 in Annex II includes all the parameters discussed in this section. The full set of regressors, including controls, can be found in Table 10 in Annex II.



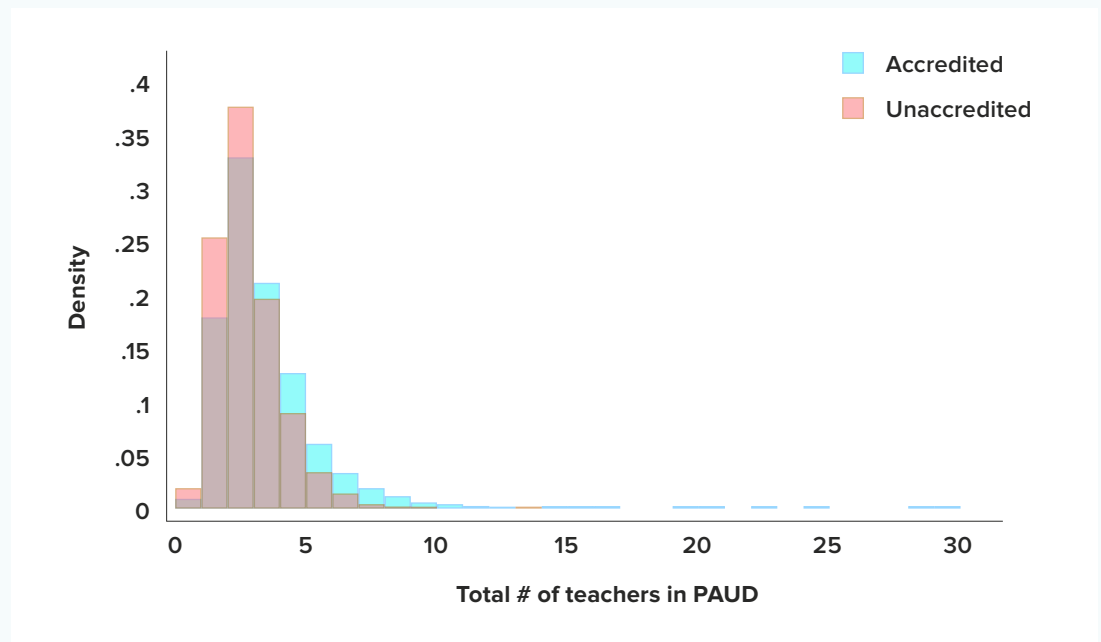
**Figure 11: PAUD center organization responsible for management**

**Principals in accredited PAUD centers report less difficulty accessing the Internet than their counterparts in unaccredited centers.** Whereas Internet access is deemed challenging for nearly one in three respondents, only 26.4 percent of principals in accredited PAUD centers rate it “difficult” or “very difficult,” compared to 34.6 percent of principals from unaccredited institutions. Further, only 27.9 percent of principals of unaccredited PAUD centers report having ever accessed SISPENA, the online accreditation assessment system portal, compared to 65.6 percent of principals in accredited PAUD centers. Thus, digital infrastructure correlates with participation in and achievement of accreditation. While these findings are perhaps unsurprising since the revised accreditation process requires Internet access and this survey was administered electronically using SISPENA, the data affirm that Internet access may be a barrier for education units throughout Indonesia.

## Program Characteristics

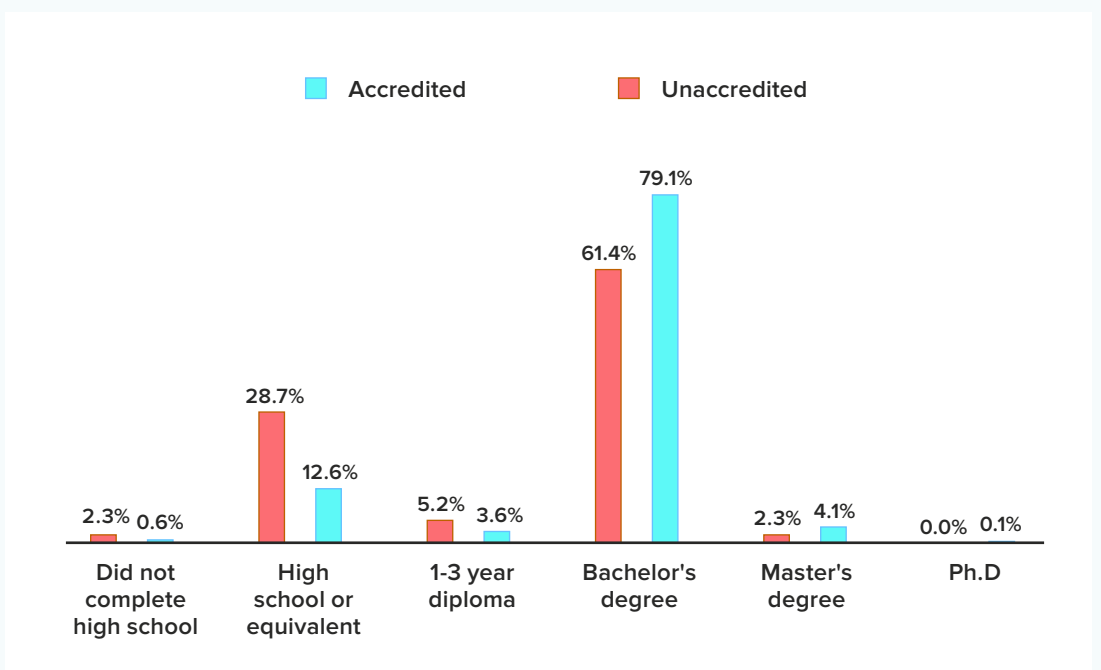
**Large PAUD centers are more likely to be accredited than small institutions.** Considering the number of teachers, child enrollment, or the number of staff as proxies for PAUD center size, the survey found that the higher the number of people attending and working at a PAUD center, the higher its likelihood of being accredited. Figure 12 displays the distribution of the total number of teachers conditional on accreditation status (green indicates the distribution conditional on being accredited; pink indicates that the center is not accredited). The larger right-hand-side tail for the distribution of the total number of teachers in a PAUD center shows that accredited PAUD centers are more likely to be larger than those that are unaccredited. Figure 14 and Figure 15 in Annex IV show the same graph for the other PAUD center size proxies considered: total number of enrolled children and total school staff. Regression analysis shows that for every additional teacher in a PAUD center, the probability of being accredited is 2.6 percent higher.<sup>12</sup>

<sup>12</sup> Table 6 in Annex II includes all the parameters discussed in this section. The full set of regressors, including controls, can be found in Table 10 in Annex II.

**Figure 12:** Number of teachers distributed in accredited and unaccredited PAUD centers

## School Leadership

**Principals of accredited PAUD centers are more likely to have higher education levels than those of unaccredited institutions.** They are more likely to have a Ph.D. (0.1 percent), a Master's degree (4.1 percent), or a Bachelor's degree (79.0 percent) than those in unaccredited centers (0 percent, 2.3 percent, and 61.0 percent, respectively). Figure 13 shows the distribution of the highest level of education achieved by accreditation status for all principals in our dataset. The largest divide is found at the Bachelor's degree level, the highest level of education achieved by 79 percent of the principals in accredited PAUDs, compared to 61 percent for those in unaccredited PAUD centers. This difference is matched by the divide found in high school or equivalent as the highest education attainment level. In this case, only 13 percent of principals in accredited PAUD centers report high school or equivalent as their highest level of education, compared to almost one-third (29 percent) for those overseeing unaccredited PAUD centers.

**Figure 13:** Principals' highest level of education

**Regression analysis results point to principals' level of education as the strongest predictor of PAUD center accreditation.** The effect is stronger the higher the level of education. A PAUD center is 18.9 percent more likely to be accredited if its principal has a Bachelor's degree or higher, compared to a center whose principal does not have this degree. Compared to principals who have not completed high school, a PAUD center is 12.3 percent more likely on average to be accredited if its principal has a senior secondary education diploma. The same is true for a 1–3-year diploma (23.1 percent), a Bachelor's degree (38.1 percent), and a Master's degree (44.4 percent). These coefficients are robust to the addition of a large number of controls.

**Principals in accredited PAUD centers work 4.8 more hours per week than those in unaccredited institutions** (22.3 hours compared to 17.6 hours, on average). In public PAUD centers, the divide increases. Principals in accredited public institutions work 5 hours per week more than those of unaccredited public centers (20.6 hours compared to 15.6 hours).

**Regression analysis results indicate that for every additional hour that principals work per week, PAUD centers are 0.7 percent more likely to be accredited.** This means that, if principals work 20 hours on average per week, their PAUD centers are 12.6 percent less likely to be accredited than principals who work 38 hours per week (Table 8 and Table 12 in Annex IV).

**Principals in accredited PAUD centers have access to more training opportunities.** Nearly three in four principals in accredited PAUD centers report having access to training on the SNP compared to 60.1 percent of those in unaccredited institutions, and this difference is statistically significant at the 1 percent level (Table 7 of Annex IV). It is important to note that BAN PAUD and PNF is not in charge of training representatives of PAUD centers on the accreditation process or overall matters pertaining to the quality of ECED.

## Principals' Perceptions: Barriers and Facilitating Factors

This section presents respondent PAUD center principals' perceptions of accreditation and the Indonesian ECED accreditation system and related processes. Because it is unclear whether principals of unaccredited PAUD centers were previously accredited (and thus familiar with accreditation standards and processes) or were in the process of seeking accreditation, percentages for all respondents were calculated. Afterward, regression analyses reveal factors associated with accreditation status. Perceptions are organized by the following categories: (a) *quality monitoring and evaluation policies and procedures*; (b) *school leadership*; (c) *infrastructure and financing*; and (d) *relational elements*.

### **Quality Monitoring and Evaluation Policies and Procedures**

**Principals report that accreditation is beneficial for Indonesia's ECED system in many respects.**

Principals deem accreditation as a mark of quality (90.5 percent) and important to ensure high-quality early learning (85.4 percent). They perceive that engaging in the accreditation process itself improves the quality of early learning provided (91.1 percent). Principals also mostly agree that the accreditation process supports implementation of the SNP (88.4 percent) and is important as a legal requirement (74.3 percent). Despite this, more than one in five (22.7 percent) principals indicate they have never made changes in PAUD structures and/or practices based on monitoring results and external evaluation.

In terms of the accreditation stages and tools (Figure 4), principals perceive the PPA and the visitation assessment stages to support quality improvement (88.6 percent and 89.5 percent, respectively). Ninety percent of respondents also agree that the accreditation result provided after the visitation assessment is valuable. In sum, 74 percent believe that the time spent preparing for accreditation is worth the achievement.

**Regression analyses suggest that principals who have positive perceptions of accreditation are more likely to work at an accredited PAUD center.** Specifically, principals who consider accreditation as a signal of quality and who believe the accreditation visitation assessment supports quality improvement are, respectively, 5.6 percent and 8.8 percent more likely to work in an accredited center.

**Principals also identified several barriers to seeking accreditation that relate to the requirements and process.** Not having enough information or knowledge about the accreditation process was reported as an issue by 61.9 percent of respondents, while having too much administrative work (for example, filling out forms) was reported as a challenge by 62.1 percent. Keeping up with changes in the accreditation process was also reported to be an important impediment by 63 percent.

**Regression analysis indicates that impediments to becoming accredited include keeping up with changes in the accreditation process, its complexity, and managing other educational personnel through the accreditation process.** Principals who report that keeping up with changes to the accreditation process is an issue are 6.8 percent more likely to run an accredited PAUD center. Likewise, principals who identify managing education personnel through the accreditation process as a challenge are 9 percent more likely to be from an accredited PAUD center. Finally, principals who deem the complexity of the accreditation process as an issue are 11.3 percent more likely to be from an accredited PAUD center.

**It is important to note that principals in centers accredited after January 2021 are less likely to report keeping up with changes in the accreditation process as a problem.** The barriers and facilitating factors reported by principals of PAUD centers who became accredited before and after 2021, when the accreditation process changed and improved, are similar. However, some differences arise in the data. The t-tests comparing data on centers accredited before and after 2021 show small but statistically significant differences in some of the barriers and facilitating factors reported as important by principals (Table 13 in Annex IV). Regression analysis shows, however, that the sole difference significant at the 1 percent level is that before 2021, principals were more likely to report that keeping up with changes in the accreditation process was an issue (Table 14 and Table 15 in Annex IV).

## *Infrastructure and Financing*

**Principals report that funding and financial sources are important incentives to obtain accreditation. For example, 89.7 percent perceive resource incentives, such as learning materials, as important to promote accreditation.** Eighty-two percent flag enrollment and teacher bonuses, most likely because these can lead to higher enrollment and, therefore, higher revenue. In contrast, the most frequently reported barriers to gaining accreditation are inadequate PAUD center budget and resources (72.3 percent), shortage of physical learning materials (64.5 percent), and shortage or inadequacy of digital technology for play and learning (for example, computers, tablets, smart boards) (70.2 percent).

**Regression analysis reveals that principals who report financial incentives as important are 3.4 percent more likely to be from accredited PAUD centers.** In contrast, principals who perceive their center has a shortage or inadequacy of physical learning materials are 5.5 percent less likely to be accredited.

## *School Leadership*

**Principals believe that accreditation supports their role as a school leader.** They perceive that their accreditation status attracts high-quality education personnel (87.1 percent) and is important to the families they serve (76.7 percent). They also believe that engaging in the accreditation process encourages the collaboration of education personnel (91.4 percent). In terms of professional growth, principals deem professional development for themselves (93.5 percent) and all education personnel (94.6 percent) as important factors that may encourage participation in accreditation. Access to on-site technical assistance (92.3 percent) and networking with other PAUD centers seeking accreditation (83.9 percent) are also valued by respondent principals.



**Regression analysis shows that principals who report that the accreditation process supports collaboration among education personnel lead PAUD centers that are 9 percent more likely to be accredited.**

## *Relational Elements*

**Principals report that relational factors, such as encouragement by other education professionals and parents, are motivators to obtain accreditation.** Most principals note the importance of encouragement from local education supervisors (84.4 percent) and superintendents (82.9 percent). Seventy percent have discussed their visitation assessment findings with their local education supervisor and superintendent. Further, having parents express a preference for the center to be accredited is also deemed important by 77.8 percent of principals. In fact, three out of four principals indicate they have shared their PAUD center's accreditation status verbally with parents.

**Regression analysis indicates that principals of accredited PAUD centers place higher value on encouragement by others to seek accreditation.** Specifically, accreditation rates are higher for principals who reported parents' expressed preferences that the center be accredited (8.0 percent). Reporting that local education supervisors' encouragement is important is associated with a 5.1 percent increase in accreditation rates.

**Overall, consensus is greater among principals of unaccredited PAUD centers regarding the facilitating factors that drive accreditation proposed in the survey than among principals working in accredited institutions. Principals running accredited centers, however, report higher importance for the barriers explored.** This is unsurprising given that incentives or motivators should logically have less relevance when accreditation has already been secured. By the same token, principals of centers that have already completed the accreditation process would most likely be more familiar with the challenges that arise during the process and thus better understand disincentives. While the differences in reported incentives between accredited and unaccredited centers' principals are small, they are statistically significant at the 1 percent level (Table 8 and Table 9 in Annex IV).

Table 8 and Table 9 in Annex IV list all of the barriers and facilitating factors, with response rates disaggregated by accreditation status. A full list of all barriers and facilitating factors can be found in Annex IV Table 13 (t-tests), while Table 14 and Table 15 (regressions) show response rates disaggregated by accreditation status obtained before and after January 2021.

## IV

# CONCLUSIONS AND RECOMMENDATIONS

In recognition of the evidence-based benefits of equitable access to, and participation in, quality ECED services, growth, school readiness, and future economic benefits, the **Gol** has made steady progress toward the goal of their universal provision by 2030. With established national quality standards and an accreditation system in place to monitor and drive quality assurance of ECED centers, the MoECRT has demonstrated its commitment to quality ECED. But relevant challenges remain to be addressed, such as the 38.8 percent GER of children aged 3 to 6 as of 2018 (World Bank 2020). Further, less than one-half of registered PAUD centers are currently accredited. Thus, this study was conducted to shed light on the characteristics of PAUD centers and their principals that are associated with accreditation as well as their perceptions of the barriers and facilitating factors that influence their participation in the accreditation process. This study aimed to support BAN PAUD and PNF's continuous improvements of Indonesia's ECED quality assurance system.

As can be gleaned from the findings, the survey results highlight the diverse characteristics of PAUD centers and their principals throughout Indonesia. Findings also suggest key differences between centers by accreditation status. This study provides high-level insights into principals who oversee PAUD centers, both in terms of differences in demographic profile between those who run accredited and unaccredited institutions. Taken together and notwithstanding the limitations of this study (as documented in the survey methodology), these insights may inform policy actions that can be taken by BAN PAUD and PNF, the MoECRT, and the MoRA to increase the number of institutions that participate in the accreditation process and that are able to see that process through to success.

These insights are presented as a set of policy recommendations below.

## RECOMMENDATION 1:

**Continue to improve the existing accreditation process by removing barriers and enhancing support for participation.** Survey responses reveal that the majority of respondent PAUD center principals value accreditation as important to quality assurance and to implementing the national standards. They also perceive accreditation to support their work as school leaders in the recruitment of high-quality education personnel. Further, principals deem the newly revised accreditation tools and assessment results to support quality improvement in their programs.

Whereas the SNP and accreditation processes apply universally to private and public PAUD centers, their diverse geographic contexts, infrastructure and financing, and program characteristics may produce differential barriers to participation despite their desire to engage in accreditation activities. Identifying and addressing such barriers and bottlenecks in the system, including for PAUD centers that did not participate in this study, are essential to inform continued improvements in the accreditation system. For instance, Internet access (necessary to access SISPENA to apply for accreditation) is low in many rural regions throughout the country, affirmed by one-third of principals who report experiencing difficulty accessing the Internet. Because accreditation requires scanning and uploading numerous documents into SISPENA, cited as a key challenge by principals, alternative administrative mechanisms, such as the use of a smartphone app with which to submit evidence, may eliminate technical barriers to participation. Further streamlining the recently improved online accreditation system (so that more of the workflow process can be automated and/or handled through digital communication driven by an underlying database system) and data synchronizing between information systems like DAPODIK and SISPENA are also recommended.

Coupled with lower teacher and school leader capacity, lack of information or knowledge about the accreditation process, inadequate funding, and limited resources for teaching and learning, some PAUD centers may require more targeted support to apply for and achieve accreditation. With the provincial accreditation bodies now operating across the country to conduct accreditation socialization activities, and inspectors and supervisors from District Education Offices available to train PAUD centers on how to apply for accreditation, such support is possible. Survey responses suggest that relational factors like encouragement and networking with other PAUD centers seeking accreditation are valued. Thus, creating mechanisms for networking and support through the accreditation portal and extended to the local community is suggested.

## RECOMMENDATION 2:

**Implement rolling, decentralized, and well-designed communication campaigns on ECED accreditation, its benefits, and how accreditation can be secured and maintained.** Survey results indicate that there is relatively high awareness of the value of accreditation in principle. Evidence suggests, however, that many PAUD centers are not sufficiently aware how the process works in practice. Further, the skewed distribution of respondents strongly suggests that communication from central authorities, when done electronically only, most successfully reaches better-resourced, larger PAUD centers closer to urban centers, and that the benefits of engagement are most easily understood by better-educated principals. While these findings might make a case for investing in upgrading the educational levels and qualifications of PAUD center principals over time, they more immediately indicate the need to ensure that communication campaigns carry very simple and clear messages that can be understood by all and that the methods of communication used to reach principals focus squarely on reaching the most marginalized PAUD centers, which, for example, online-only communications campaigns are unlikely to do. Currently, the MoECRT is rolling out communications targeting local governments and service providers about their shared responsibility for nurturing children's well-being through high-quality early education, for which accreditation is a proxy. It is recommended to build from this effort to reach diverse stakeholders.

Further, effective communication campaigns should ideally be tailored to different audiences. As important as reaching principals to explain the accreditation process and its benefits will be to target the communities served by those PAUD centers to ensure that market demands from parents provide additional incentive for principals to pursue accreditation. Thus, well-designed communication campaigns should target different audiences with different messages regarding the value of accreditation. They should include clear materials outlining the steps, timeline, requirements, and supporting resources aligned with the accreditation process and standards. For PAUD centers that have secured accreditation, communication campaigns on how to sustain and enhance quality in early learning settings would be valuable. Such campaigns might include follow-up actions school leaders might take based on accreditation feedback to ensure continuous quality improvement, such as moving from a B to an A rating, and how to prepare for reaccreditation.

### RECOMMENDATION 3:

**Widen the reach of training activities on ECED quality indicators to target more remote PAUD centers with fewer resources, as well as ECED supervisors in more remote, less-well-resourced districts.** This study's findings show that principals of accredited PAUD centers have much more access to training activities related to ECED quality than their peers from unaccredited institutions. In addition, it is known that the socialization activities promoted by BAN PAUD and PNF have been building capacity over time on how to fill out the PPA, which is fundamental for the accreditation process. Ensuring that PAUD center staff know how to use the PPA to self-assess their programs against the eight national standards and 24 quality indicators prior to applying for accreditation may enhance their success rate at achieving accreditation, while eliminating the workload from BAN PAUD and PNF when centers are not prepared. Taken together, these findings suggest that training and socialization activities have generally been successful in supporting accreditation efforts. Thus, widening their reach to guide PAUD center principals through the accreditation process, including what quality looks like in practice, will likely support higher accreditation rates than currently observed—particularly if training activities are designed as “live,” in which principals actually undertake the steps toward accreditation as they are trained.

As with communication, the findings from this study can be used to ensure that the training interventions are targeted directly toward those PAUD centers least likely to be accredited: those that are small, have principals with low levels of education, and are located in more remote areas. Such interventions may be implemented in concert with the BSKAP messaging encouraging centers in remote areas to be fostered by District Education Offices for them to have better access to trainings on the national standards and quality indicators. The more in-depth this training is (that is, the more it helps those principals to understand not just how to apply for accreditation but also how to run their PAUD centers in ways that will meet the accreditation standards), the more likely accreditation rates are to increase. Widening the reach of training activities should also involve partner organizations like the Early Childhood Education Association (*Himpunan Pendidik dan Tenaga Kependidikan Anak Usia Dini Indonesia* or HIMPAUDI) and district ECED supervisors, given their critical role in monitoring quality standards and reinforcing compliance.

### RECOMMENDATION 4:

**Provide targeted incentives for participation in accreditation.** Survey findings show that PAUD centers that are larger, have better educated principals, and are geographically less remote are more likely to engage in the accreditation process. Thus, by incentivizing those that are at the margin to participate in the accreditation process, BAN PAUD and PNF, the MoECRT, and the MoRA may experience increased accreditation rates, particularly if implemented as part of an integrated suite of actions linked to the other recommendations. Given the essential role of local government in ECED services supervision, this should target and work through local government structures and ECED supervisors in those remote, less-well-resourced districts. The central and regional governments play key roles in ensuring incentives are equitably distributed at the local level. Examples of incentives may include: (a) funding and financial sources (for example, widening of grant opportunities for unaccredited centers to recruit and train more qualified staff, invest in the center's learning materials, reduce the need to charge parents fees, and better support children with special needs); (b) access to formal educational opportunities for principals from PAUD centers that are not accredited yet; (c) widening the provision of grant funding that is currently only available to accredited PAUD centers; and (d) facilitating access to professional networks of accredited PAUD centers that provide information, resources, and professional exchanges on running a successful institution. Because remote PAUD centers, which are also more likely to struggle with Internet connectivity, were relatively poorly represented in this survey sample, an additional incentive that might support accreditation is provision of funded connectivity packages linked to participation in the accreditation process.



## RECOMMENDATION 5:

**Conduct studies and research on the short- and long-term impacts of accreditation on children's development and readiness for primary education.** Although this survey has yielded important insights into the ECED accreditation system, who participates, and why, it has only been able to cover a small set of key features of the overall accreditation process and how it can be used to strengthen the quality and reach of ECED in Indonesia. Consequently, it will be essential to follow this up with further studies and research that explores different aspects of accreditation in greater depth. Making PAUD centers administrative micro-data available to researchers is essential to incentivize further and better-informed research. Perhaps most important will be to explore what the impacts of accreditation are on children's development and their readiness for primary education, both to help to make the case for accreditation and to understand which aspects of the accreditation process are most important and thus should form the focus of ongoing strengthening of that process.

**Table 3:** Summarizes the abovementioned policy recommendations and provides a notion of prioritization, impacts, and implementation arrangements or implications.

Recommendation	Timeframe	Envisioned impact	Implementation arrangements
1. Continue to improve the existing accreditation process by removing barriers and enhancing support for participation	Short-term	High	Central, with participation of regional and local stakeholders
2. Implement rolling, decentralized, and well-designed communication campaigns on ECED accreditation, its benefits, and how accreditation can be secured	Short-term first, and then ongoing	High	Central design, with regional and local-level adaptation and implementation
3. Widen the reach of training activities on ECED quality indicators to target more remote PAUD centers with fewer resources, as well as ECED supervisors in more remote, less-well-resourced districts	Medium-term first, and then ongoing	Medium	Central design, with regional adaptation and implementation
4. Provide targeted incentives for participation in accreditation	Long-term	High	Central design, with regional adaptation and implementation
5. Conduct studies and research on the short- and long-term impacts of accreditation on children's development and readiness for primary education	Long-term	Medium	Central-level design and implementation in cooperation with think tanks, development organizations, and academia

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# Annex I:

## Accreditation Requirements Assessment

### Indicators for PAUD Units (2021)

No.	Standards	Indicators	Descriptions
1	Standard of Child Development Achievement Level	1.1 Child Growth Detection	<p>Availability of recapitulation of growth data for all children with the following conditions:</p> <ol style="list-style-type: none"> <li>1) Weight data by age (very underweight/underweight/normal/overweight risk)</li> <li>2) Height data by age (very short/short/normal/tall)</li> <li>3) Data on weight by height (poor nutrition/undernutrition/good nutrition/at risk of overnutrition/overnutrition/obesity)</li> <li>4) Head circumference information by age and gender (macrocephaly/normal/microcephaly)</li> </ol> <p>Documents are taken from growth data for all children carried out by health workers or trained educators from Growth Monitoring Card (KMS/KIA) data or from other related sources, both in the form of online and offline applications.</p> <p>The uploaded document is a recapitulation of the growth of all children in at least 1 class.</p>
		1.2 Child Development Detection	<p>Availability of data recapitulation of child development achievement according to age group, which can be measured using several instruments:</p> <ol style="list-style-type: none"> <li>1) DDTK (Early Detection of Child Development)</li> <li>2) Integrated KMS (Child Growth Monitoring Card)</li> <li>3) KPSP (Pre-Development Screening Questionnaire) in the Stimulation and Detection of Early Growth and Developmental Interventions (SDIDTK- Stimulasi Deteksi Intervensi Dini Tumbuh Kembang) book.</li> <li>4) Child development data from other related sources</li> </ol> <p>Child development can be seen in the Maternal and Child Health (KIA) book, or other related sources, both in the form of online and offline applications.</p>
2	Standard of Contents	2.1 Education Unit Level Curriculum ( <i>Kurikulum Tingkat Satuan Pendidikan</i> or KTSP)	The latest Education Unit Level Curriculum Document (KTSP), which at least contains learning content/ materials, learning methods, and approval sheet minimum from the institution's leadership.
		2.2 Curriculum References	Curriculum references are references used by educational units in the form of national standards, a mixture of national and international standards, or a mix of national and local. For Cooperation Education Units (SPK) the curriculum is prepared referring to national education standards, which can be enriched by the curriculum of other countries' educational units that have advantages in the field of education.

No.	Standards	Indicators	Descriptions
		2.3 Services by Age Group	<p>The latest data document of students served and the number of educators in the education unit is a data document of the list of students according to the age group served, which is contained in the Basic Education Data (DAPODIK).</p> <p>Data grouping includes: birth–2 years or 2–4 years or 4–6 years (according to existing conditions). The data consist of a list of students, the number of children, and the number of educators.</p>
3	Standard of Process	3.1 Learning Planning	<p>Learning planning documents include: semester program, weekly lesson plan (RPPM), and the latest daily lesson plan (RPPH). Semester program documents are semester learning tools derived from KTSP. The RPPM document is a weekly learning planning tool derived from the semester program. The RPPH document is a daily learning planning tool derived from the RPPM.</p>
		3.2 Learning Supervision	<p>Learning Supervision is the supervision carried out by the head of the PAUD unit on the learning process, which includes: the implementation time of supervision; the name of the Supervised Educator; supervision findings; and follow-up on the results of supervision.</p> <p>The learning supervision document used is the latest document.</p>
		3.3 Engagement Parent 3.3.1 Communication Among Parent with Educator 3.3.2 Meetings / Activities Involving Unit - Parent	<p>The involvement of parents in the PAUD unit can be in the form of communication between parents and educators to improve the quality of PAUD services. The involvement of parents in PAUD units can take the form of meetings or unit activities that involve parents to improve the quality of PAUD services. The availability of communication documents between parents and educators can be in the form of reports/photos of liaison books or other communication formats between parents and educators.</p>
4	Standard of Educators and Education Personnel	4.1 Educators	<p>PAUD educator documents include academic qualifications and competencies. Availability of qualification and competency documents for educators working in units are contained in DAPODIK.</p>
		4.2 Education Personnel	<p>PAUD education personnel documents include school principals/managers, administrative staff and other supporting staff which are distinguished according to academic qualifications and other competencies.</p> <p>Availability of qualification and competency documents for education staff working in units within DAPODIK.</p> <p>Make sure the unit has completed data on education personnel at DAPODIK related to the qualifications and competencies of education personnel working in the unit.</p>

No.	Standards	Indicators	Descriptions
5	Standard of Facilities and Infrastructure	<p><b>5.1 Facilities</b></p> <p><b>5.1.1 Availability of an Inventory List Document for the Existence of Playing Facilities at DAPODIK</b></p> <p><b>5.1.2 Availability of Public Facilities at DAPODIK</b></p>	<p>Data on the availability of an inventory list document for the existence of playing facilities used in the learning process consist of: blocks; media materials and art and culture development tools, and materials; literacy and numeracy development media and tools; stationary; painting/drawing tools; materials, media, and role-playing tools; materials, media, and cooking tools; religious development materials, media, and tools; materials, media and tools for physical motor development; materials, media, and tools sourced from the natural/surrounding environment; outdoor games (sandbox, boardwalk, slide, swing); and children's books. Data on the availability of public facilities include, among others, electricity/other lighting, water installations, latrine/toilet installations with clean water, installation of hand washing facilities with running water, and first-aid facilities for accidents (P3K).</p> <p>Make sure the unit has completed the DAPODIK-related inventory list of the existence of the playing facilities owned.</p>
		<p><b>5.2 Infrastructure</b></p> <p><b>5.2.1 Land Area</b></p> <p><b>5.2.2 Land Status</b></p> <p><b>5.2.3 Infrastructure Used by PAUD Unit</b></p>	<p>Land area data are in a document containing the size of the available land area (current data).</p> <p>Land status data are in a document containing the status of the land used by the education unit, whether it is self-owned or leased/borrowed (up-to-date data).</p> <p>Documents for the availability of infrastructure include, among others, those containing the availability of buildings and play/study rooms (up-to-date data).</p>
6	Standard of Management	<p><b>6.1 Planning Unit</b></p>	<p>Plan owned by the PAUD unit that includes: the vision, mission, and goals of the education unit; a 1-year activity plan; and the current year's educational calendar prepared by the education unit.</p>
		<p><b>6.2 Organizing</b></p>	<p>Organizing is part of management that regulates the duties, authorities, and responsibilities of each individual/personal within the PAUD unit, which is indicated by the organizational structure of the PAUD unit, a description of the main tasks and functions, as well as the rules for educators and education staff.</p>
		<p><b>6.3 Implementation</b></p>	<p>Implementation is how a plan is implemented by the PAUD unit, which is indicated by having a Standard Operating Procedure (SOP) document for each activity.</p>
7	Standard of Financing	<p><b>7.1 Budget Plan</b></p>	<p>The current year's Budget Plan document includes investment costs (purchase of land/buildings, etc.), operational costs (salary, purchase of tools and playing materials, office stationery, etc.), and personal costs (procurement of uniforms, additional children's food, consumables for children, etc.).</p>

No.	Standards	Indicators	Descriptions
		<b>7.2 Financial Administration</b>	Financial Administration is management that includes all activities related to finance, including income and expenditure records at least.
<b>8</b>	<b>Standard of Evaluation</b>	<b>8.1 Child Development Assessment</b>	Child development assessment documents are daily assessments of the achievements of all aspects of child development carried out through authentic observations including, among others, in the form of checklists/anecdotal notes/works/documentation/other forms of assessment.
		<b>8.2 Child Development Report</b>	A child development report includes the results of an assessment of the achievement of children's development to parents of students, reported periodically and every semester.

## Annex II:

# Guidelines for Implementing BAN PAUD and PNF Accreditation (2021)

**Table 4:** Implementation of accreditation activities by stage

### Activity: Filling Out the Accreditation Prerequisite Assessment Instrument (PPA)

Stage	Duties of the Provincial BAN Secretariat	Assessment Task	Duties of Provincial BAN Members
1.	Ensure the PPA instrument reaches the education unit.	Updating unit data in Dapodik/ EMIS.	Encourage units to immediately fill in the instruments in the Sispena 3.1 application.
2.		Fills in the PPA instrument according to the manual using the Sispena 3.1 application.	
3.	Mapping PAUD and PNF units that are ready for KPA under the supervision of BAN Provinsi members.	Ensure the fields are complete along with uploading the required documents.	Ensure units have filled in the PPA instrument for the basis of KPA mapping.

### Activity: Classification of Accreditation Application

Stage	Duties of the Provincial BAN Secretariat	Assessor Duties	Duties of Provincial BAN Members
1.	Checking general requirements		Finalize the results of checking general requirements, special requirements carried out by the secretariat (The assessment is evenly distributed to all members of the Provincial BAN)
2.	Checking for special requirements		
3.	Ensure that the assistant has filled and uploaded at least <b>80% of the PPA documents in the Sispena application which are spread across 8 standards.</b> If it does not meet 80%, the secretariat contacts the assessor to complete it.		Mapping the distribution of assessors in the implementation of KPA (minutes of the determination of KPA assessors)
4.		Verify and check the suitability of the attached documents with what should be requested.	
5.		Contacted the assessee to complete the documents as required by the indicators.	
6.		Conduct assessment of all PPA indicators on 8 Standards in accordance with the manual. Minimum score that passes the PPA is 60%.	
7.			Determination of KPA results through RPA with minutes.



**Activity: Visitation**

Stage	Duties of the Provincial BAN Members	Task of the Provincial BAN Secretariat	Assessor Duties
1.	Assign assessors who will conduct visitations in accordance with the guidelines. Especially for Papua and West Papua, the assignment of assessors must consider geographical location.		
2.	Mapping assessors who will conduct visitations in accordance with the guidelines.		
3.		Informing the visitation assignment to the assigned visitation assessor and requesting the visitation assessor's assignment availability.	
		Inform the assessor of the visitation.	
5.	Assign a visitation assessor by issuing a letter of assignment.		
6.			Confirm the time and readiness of the assessee for visitation.
7.	Monitoring the implementation of visitation tasks and the results are reported in the BAN RPA.	Prepare meeting rooms and accompany the implementation of online visitation.	Review the PPA results of the unit to be visited.
8.	Province		Carry out visitation activities 1 day/unit.
9.			Conduct assessment and upload visitation documents within a maximum time limit of 5 days after the end of the assignment letter.
10.		Checking the completeness of the visitation assessor's assignment in Sispena.	
11.	Establish the minutes of the visitation results in the RPA.		

### Activity: Validation and Verification

Stage	Tasks				
	BAN Members	Provincial BAN Member	BAN Provincial Secretariat	Assessor	Source
1.	Assign validation and verification resource persons by mail decision.	Selecting the validation resource person on duty as per with BAN PAUD decision letter and PNF on validation resources.	Under the supervision of the SIMA commission and the FTC and known to them by the Chairman of BAN PAUD and PNF mapping the assignment of accreditation validation and verification accessors.	Assessing the items of the instrument which refers to on the 8 National Education Standards by taking into account the electronic track record on DAPODIK, visitation files, assessor notes and evidence attached in the form of videos/photos/ other documents.	Recapitulation of Validation and Verification results through the application Sispna 3.1 signed by BAN PAUD and PNF Provincial resource person and BAN PAUD and PNF resource person.
2.	Designation Results accreditation implemented by member BAN PAUD and PNF through the Accreditation Policy Formulation Meeting (RPKA)	Select and set assessor validation as per with validation assess or criteria.	Set up Minutes of results validation and verification that signed by the resource person BAN PAUD and PNF Provincial and BAN PAUD and PNF resource persons.	Assessed 10 assessments. In conditions specific Assessor Validation can be rated less or more than 10 accessions.	Source Ban Member PAUD and PNF Province do verify with steps: a. Checking the validation results of each accompanied validation assessor as a whole. b. Verifying the validation result report and provide direction and input.
3.	BAN PAUD Member and PNF as resource persons and validation and verification activity verifier.	The person in charge of the activity is the Provincial PAUD and PNF BAN.	Preparing and checking validation and verification tools required form: a. Guidelines for validation and verification of PAUD and PNF units; b. PAUD/PKBM Visitation Assessment Instrument; c. Visitation report through Sispna 3.1. PAUD and PNF and evidence attached in the form of videos/ photos/notes/other documents;	Verifying the assessment results of assessors A, B and Group.	BAN PAUD and PNF Provincial Resource Persons from BAN PAUD and PNF assessors who are meet the required criteria in charge of assisting BAN PAUD and PNF resource persons as initial verifiers of validations and verification activities.

## Activity: Validation and Verification (continued)

Stage	Tasks				
	BAN Members	Provincial BAN Member	BAN Provincial Secretariat	Assessor	Source
4.	Expert Team or BAN PAUD Secretariat and PNF who are assigned by the Chairman of BAN PAUD and PNF.			The validation assessor conducts an analysis to see the accuracy or accuracy of the assessment made by visitation assessor.	Each accession that has been checked and meets the requirements is verified by BAN PAUD and PNF resource persons.
5.				Based on this analysis, the validation assessor makes a validation grade decision with the possibility of assessor grade A, B, Group or own grade based on all evidence (recordings/ photos/videos/ sound and visitation item notes).	
6.				Validation assessors provide assessments in the Sispena 3.1 application based on the results of the visitation assessment.	
7.				The validation assessor provides an item note explaining the rationale for the validation score decision taken.	
8.				Validation assessor provides explanation of accreditation results.	
9.				Validation assessor provides recommendation on accreditation status.	

## Annex III: Survey Methodology

In consultation with an ECE expert, the World Bank developed a quantitative survey of PAUD center principals' barriers and facilitating factors for participation in accreditation. The survey was designed to gather information about principal and PAUD unit characteristics as they relate to the PAUD unit's accreditation status, as well as principals' perceptions of accreditation to inform improvements to the system. The survey instrument was organized in three sections: (a) information about the PAUD; (b) information about the principal; and (c) information about accreditation. The survey included 97 data collection points and both closed- and open-ended questions (Table 5).

**Table 5:** Survey item examples

Survey Section	Close-Ended Survey Items	Open-Ended Survey Items
Information about the PAUD	<p>Have you used SISPENA, the online accreditation portal?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>For each type of position listed below, please indicate the number of education personnel (head count) currently working in this PAUD.</p> <p>Write a number in each row. Write 0 (zero) if none.</p> <p>a. Principals: _____</p> <p>b. Teachers: _____</p> <p>c. Assistants Teachers: _____</p> <p>d. Special education Teacher: _____</p> <p>e. Financial and Administrative Personnel: _____</p> <p>f. Other (personnel who does not fit in other categories): _____</p>
Information about the Principal	<p>Highest education completed:</p> <p><input type="checkbox"/> a. Not completed high school</p> <p><input type="checkbox"/> b. High school or equivalent</p> <p><input type="checkbox"/> c. 1 year diploma/2 year diploma/3 year diploma</p> <p><input type="checkbox"/> d. 4 years diploma/Bachelor degree</p> <p><input type="checkbox"/> e. Master</p> <p><input type="checkbox"/> f. PhD</p>	<p>How many years of work experience do you have, regardless of whether you worked full-time or part-time?</p> <p>Please write a number in each row. Write 0 (zero) if none.</p> <p>Please round up to whole years.</p> <p>Year(s) working as a PAUD principal at this PAUD: _____</p>
Information about Accreditation	<p>Is this PAUD accredited?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>Date accreditation was achieved: _____</p>



The survey was informed by published research and existing ECED survey instruments and questionnaires. Specifically, survey items gathering information about the demographic and descriptive characteristics of PAUDs and PAUD principals drew from the ECED Impact Evaluation<sup>13</sup> and the TALIS Starting Strong Survey ECEC Centre Leader questionnaire (OECD 2018). Survey items addressed principal barriers and facilitating factors for participation in the accreditation system. The survey was written in English and translated into Bahasa-Indonesia for piloting.

In February 2022, the World Bank team piloted the survey via an online 90-minute focus group discussion with 24 principals engaged in accreditation (currently accredited or seeking accreditation) and 16 principals of PAUD centers not engaged with accreditation. Participants completed the survey and provided feedback on the clarity of the questions, length of completion time, and the relevance of the items. As a result of the feedback several items on the survey were eliminated, clarifying language was added to several items, and one question was added to capture data on the accessibility of content resources for seeking accreditation.

In March 2022, a link to the online survey in Alchemer was made available to all registered PAUD centers on the DAPODIK website. The primary participants were PAUD principals, as they typically maintain the locus of control for participation in accreditation. The survey was open for 16 days, after which it was closed and data were cleaned.

The World Bank team designed and followed a protocol for data cleaning. The protocol entailed:

- Eliminating questionnaires that were blank or mostly blank or those that appeared to be duplicates due to having the same agent details and IP address;
- Deleting responses that were nonsensical (for example, the age of principal under 18 or child enrollment numbers in the millions);
- Translating written responses and recording their equivalent numerical responses (for example, the number of personnel or enrollment numbers);
- Converting numerical data as appropriate to the question (for example, if hours and minutes were provided, calculating the number of days); and
- Making logical judgments about other open-ended responses (for example, where dashes were recorded, a 0 was inputted).

## Data Analysis

**To support the data analysis, we calculated the difference in characteristics between accredited and unaccredited PAUD centers.** These differences are presented in the Findings as variable means, together with the t-test to assess whether the difference is statistically significant (Table 4 in Annex II and Table 5 in Annex III). We then used regression analysis to explore which sources of variation are linked to an increase or decrease in accreditation rates.

**The effects presented below are not causal, as the survey design did not allow for it.** However, this study enabled us to determine correlations about the magnitude of the relationship between potential drivers of accreditation status that might be informative. While comparing the mean of different characteristics between groups allows for an overview of the situation, regression analysis explains how a unit increase in a single factor translates into an increase or decrease in the accreditation status while controlling for all other factors (*ceteris paribus*). We first present the coefficients for the objective factors captured by the survey—PAUD center and principal characteristics—and then for the reported barriers and facilitating factors.

**Regarding accreditation as a function of principal and PAUD center characteristics controlling for socioeconomic, geographic, and climate factors, we used a model where accreditation status is the dependent variable explained by different competing factors.** The advantage of showing correlations in this fashion is that it shows, with a simple coefficient, the contribution of a given factor to the likelihood of a PAUD center being accredited (Table 6 and Table 10 in Annex IV).

<sup>13</sup> Conducted by the MoECRT and the World Bank in 2016, this evaluation included a sampling of 310 Indonesian villages in 9 districts. See <https://microdata.worldbank.org/index.php/catalog/3537>.

The linear regression model is characterized by the following expression:

$$Accreditation_i = \alpha + Principal'_i \beta^{(1)} + PAUD'_i \beta^{(2)} + Controls'_p \gamma_2 + \epsilon_i$$

In this expression,  $i$  represents a principal and  $p$  is the province where the PAUD center of this principal is located. The betas can be interpreted as the increase in the probability of a PAUD center being accredited for a unit increase in that regressor. Controls include labor market outcomes coming from SAKERNAS 2021 (Labor Force Survey), historic demographic controls (2005) coming from the Demographic and Health Survey Program, and geographic and climate controls (2015) at the province level from a variety of sources.

**The rationale behind this stepwise variable selection model is that, as there is an increase in the number of competing factors with additional regressors, such as PAUD center's characteristics and other socioeconomic and geographic controls, the coefficients found in the first model are challenged.** This is done to verify if the competing factors are really driving the correlation with accreditation status, or this variation can be explained by the initial factors. The first regression includes only principal characteristics as regressors; the second includes PAUD center-level characteristics as well; the third includes demographic controls; and so on. As an illustration, in the case of Table 6, Annex IV, principal's education is the only regressor on the right-hand side of the model equation for model (1). As further controls are added into models (2) to (6), it is possible to verify whether the coefficient given by principal's education can be explained by other factors, such as other PAUD center characteristics, or demographic, socioeconomic, geographic, or climate controls (Table 6 in Annex IV).

**Regarding accreditation as a function of reported barriers and facilitating factors, we estimated a model where accreditation status is a function of all reported barriers and facilitating factors reported by PAUD center principals.** In contrast with the means and t-tests where each reported answer was observed in isolation, here we controlled for all other reported barriers and facilitating factors and estimated which of them drive the variation in accreditation rates.

This model is characterized by the following expression:

$$Accreditation_i = \alpha + Incentives'_i \beta^{(1)} + Disincentives'_i \beta^{(2)} + \epsilon_i$$

In the expression above,  $i$  represents a principal and the betas can be interpreted as the increase in the probability of a PAUD center being accredited if its principal agreed with the incentives or disincentives in the survey (see Table 8 for incentives and Table 9 for disincentives, Annex IV).

# Annex IV: Additional Tables, Figures, and Graphs

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Tidak Setuju

**Table 6:** Means and t-test between accredited and unaccredited PAUD centers

	Accredited ( $\mu$ )	Not Accredited ( $\mu$ )	Difference	t stat.
<b>— PAUD Characteristics</b>				
Public	0.253	0.314	-0.061	-6.877***
Number of Teachers	2.946	2.308	0.638	20.124***
<b>— PAUD Management</b>				
Owned by the foundation/Yayasan	0.878	0.809	0.069	7.957***
NGOs	0.035	0.051	-0.016	-3.195***
Organization managing multiple PAUDs	0.008	0.012	-0.004	-1.692*
Religious foundation	0.017	0.016	0.001	0.273
Business	0.002	0.009	-0.007	-3.600***
Professional Association	0.000	0.001	-0.000	-0.638
Other private institution/person	0.060	0.103	-0.043	-6.535***
<b>— PAUD Funding</b>				
Personal funds	0.284	0.341	-0.057	-6.258***
Fees paid to the PAUD by parents	0.314	0.214	0.101	11.992***
Other program (Dana Desa)	0.217	0.268	-0.051	-6.045***
Local Government	0.049	0.057	-0.007	-1.629
NGOs	0.026	0.025	0.001	0.385
Central Government	0.029	0.030	-0.001	-0.414
Benefactors, donations, fundraisers	0.076	0.058	0.018	3.846***

\* 10% \*\* 5% \*\*\* 1%; Source: World Bank staff calculations using survey data collected in March 2022

Note: Number of accredited PAUD centers: 7,441; Number of unaccredited PAUD centers: 4,034. The null hypothesis for the t-test is that the difference is equal to zero.

**Table 7: Means and t-test for principals by PAUD center accreditation status**

	Accredited ( $\mu$ )	Not Accredited ( $\mu$ )	Difference	t stat.
<b>— Principal's Education</b>				
Not completed high school	0.006	0.023	-0.017	-6.724***
High school	0.126	0.288	-0.162	-19.940***
Diploma (1-3 years)	0.036	0.053	-0.017	-4.173***
Bachelor (4 years)	0.791	0.613	0.178	19.692***
Master	0.041	0.023	0.018	5.451***
PhD	0.001	0.000	0.001	2.000**
<b>— Principal's Characteristics</b>				
Weekly Hours	22.349	17.580	4.769	24.731***
Age	44.989	41.425	3.564	19.554***
Years in PAUDs	10.366	7.379	2.987	18.746***
Uses SISPENA	0.656	0.279	0.377	41.953***
<b>— Principal's internet access</b>				
Very Easy	0.043	0.032	0.011	3.036***
Easy	0.359	0.305	0.054	5.861***
Neutral	0.334	0.317	0.017	1.907*
Difficult	0.203	0.243	-0.040	-4.826***
Very Difficult	0.061	0.103	-0.042	-7.652***
<b>— Principal's access to training</b>				
National Education Standards	0.742	0.601	0.142	15.281***
Accessing SISPENA	0.713	0.479	0.234	24.566***
Accreditation application	0.857	0.646	0.210	24.392***

Note: \* 10% \*\* 5% \*\*\* 1%;

Source: World Bank staff calculations using survey data collected in March 2022

Note: Number of accredited PAUD centers: 7,441; Number of unaccredited PAUD centers: 4,034. The null hypothesis for the t-test is that the difference is equal to zero.

**Table 8: Regression analysis**

<b>Abridged Hierarchical Model</b>						
<b>Model Includes:</b>	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>	<b>(6)</b>
<b>— Principal's Education</b>						
High school	0.123***	0.138***	0.135***	0.125***	-0.129***	0.132***
Diploma (1-3 years)	0.231***	0.217***	-0.216***	-0.205***	0.207***	0.210***
Bachelor (4 year diploma)	0.381***	0.346***	0.328***	-0.326***	-0.328***	0.330***
Master	0.444***	0.378***	0.331***	-0.308***	0.307***	0.308***
PhD	0.676***	0.623***	0.368	0.428***	0.402	0.400
<b>— Principal's Characteristics</b>						
Weekly Hours		0.007***	0.007***	0.007***	0.007***	0.007***
Age		0.008***	0.007***	0.008***	0.008***	0.008***
Years in PAUDs (any role)		0.004***	0.004***	0.004***	0.004***	0.004***
<b>— PAUD Characteristics</b>						
Public Center			-0.023**	-0.027***	-0.029***	-0.032***
Total Teachers			0.029***	0.025***	0.026***	0.026***
Province Demographic controls (2005-2021)	x	x	x	✓	✓	✓
Province Geographic controls (2015)	x	x	x	x	✓	✓
Province Climate controls (2015)	x	x	x	x	x	✓
<b>Observations</b>	11,437	10,028	9,722	9,669	9,669	9,640
<b>R-squared</b>	0.052	0.117	0.127	0.171	0.176	0.178

**Robust Standard Errors**

\* 10%, \*\* 5%, \*\*\* 1%

Note: **Province Demographic controls (2021)**: Province level aggregates computed from SAKERNAS 2021 Labor Force Survey. Age, gender, employment rate, unemployment rate, share of skilled labor force, urbanization index, educational attainment, share of students, share of unpaid housekeeping, agricultural labor force share, average monthly income, minimum wage per province. **Province Demographic controls (2005)**: Province level aggregates computed from DHS 2005 household survey. Wealth index, children under 5 per household, province average age, average household size, share of families with a car, share of families with electricity, share of families with a motorcycle. **Province Geographic controls (2015)**: Urbanization Index (GHS), population count, UN population count under 5, UN population density, average travel time to nearest city, average province slope, average province nightlight intensity. **Province Climate controls (2015)**: Aridity, province average land surface temperature, diurnal temperature range, drought episodes, rainfall. **Additional PAUD Characteristics**: Total number of principals in the PAUD, Special Ed program.

Note for Tables 8–14: To make the parameters easier to interpret to a broader audience, the incentives and disincentive responses are coded as “1” when principals “agreed” or “strongly agreed,” and zero otherwise, as indicated in the tables’ footnotes. For advanced readers, the results are robust to ordinal regression analysis where the numerical values for the Likert responses are “5,” “4,” “3,” “2,” “1” for “strongly agree,” “agree,” “neutral,” “disagree,” and “strongly disagree,” respectively.



**Table 9: Principal perception t-test**

(null hypothesis is that the difference is equal to zero)

	Accredited ( $\mu$ )	Not Accredited ( $\mu$ )	Difference	t stat.
<b>— Question 19:</b>				
a) The accreditation process supported our implementation of the national standa	0.844	0.906	-0.062	-9.283***
b) The accreditation process supported collaboration among education personnel	0.872	0.937	-0.064	-10.790***
c) The accreditation process improved the quality of early learning provided	0.876	0.930	-0.054	-9.018***
d) Our accredited status supports enrollment because it is viewed as a mark of quality	0.869	0.926	-0.056	-9.233***
e) Our accredited status attracts high-quality education personnel	0.834	0.891	-0.058	-8.388***
f) Our accreditation status is important to the families we serve	0.715	0.796	-0.080	-9.454***
g) Accreditation is important for me as a strategy for ensuring high quality learning	0.806	0.880	-0.074	-10.157***
h) The time spent preparing for accreditation was worth the achievement	0.699	0.765	-0.067	-7.644***
<b>— Question 20:</b>				
a) Encouragement by local education supervisors importance	0.810	0.862	-0.052	-7.011***
b) Encouragement by superintendent importance	0.812	0.838	-0.025	-3.380***
c) Financial incentives (e.g. enrollment and teacher bonuses) importance	0.787	0.836	-0.049	-6.277***
d) Resource incentives (e.g. learning materials) importance	0.869	0.913	-0.044	-7.095***
e) Professional development for yourself importance	0.907	0.950	-0.043	-8.269***
f) Professional development for PAUD education personnel importance	0.921	0.959	-0.038	-7.891***
g) Access to onsite technical assistance importance	0.895	0.939	-0.044	-7.918***
h) Networking with other PAUDs seeking accreditation importance	0.820	0.850	-0.029	-4.003***
i) A student's parent expressed preferences importance	0.713	0.813	-0.099	-11.763***
j) Accreditation importance as a mark of quality	0.838	0.919	-0.080	-12.159***
k) Accreditation importance as a legal requirement	0.701	0.767	-0.066	-7.585***
<b>— Question 21:</b>				
a) The Accreditation Prerequisite Assessment (PPA) supports quality improvement	0.832	0.915	-0.083	-12.324***
b) The Visitation Assessment (VA) supports quality improvement	0.839	0.925	-0.086	-13.198***
c) The accreditation result (PHA) provided after the VA is valuable	0.847	0.928	-0.081	-12.612***

\* 10% \*\* 5% \*\*\* 1%; Source: World Bank staff calculations using survey data collected in March 2022

Notes: **Question 19:** How strongly do you agree or disagree with the following statements? Strongly Agree (1), Agree (1), Neutral (0), Disagree (0), Strongly Disagree (0). **Question 20:** Please rate the importance of the following incentives: Not important at all (0), Slightly important (0), Neutral (0), Important (1), Very important (1). **Question 21:** How strongly do you agree or disagree with the following statements about accreditation? Strongly Agree (1), Agree (1), Neutral (0), Disagree (0), Strongly Disagree (0). Note that the values in parenthesis represent the numerical value given to that answer to estimate the average in a way that it is more meaningful. This way, the share represents the share of principals who agreed with a statement or thought it was important, depending on the question.

	Accredited ( $\mu$ )	Not Accredited ( $\mu$ )	Difference	t stat.
<b>— Question 22:</b>				
a) Not enough information or knowledge about the accreditation process	0.650	0.602	0.048	5.091***
b) Too much administrative work to do (e.g. filling out forms)	0.650	0.604	0.045	4.834***
c) Keeping up with changes to the process	0.606	0.643	-0.038	-3.975***
d) Managing PAUD education personnel through the process	0.612	0.616	-0.005	-0.514
e) Inadequate PAUD budget and resources	0.749	0.716	0.032	3.744***
f) Government regulation and policy	0.598	0.584	0.014	1.480
g) PAUD education personnel absences	0.611	0.595	0.016	1.702*
h) PAUD educational personnel shortage	0.536	0.493	0.043	4.401***
i) Lack of parent or guardian involvement and support	0.557	0.511	0.046	4.745***
j) Lack of opportunities and support for my own professional development	0.584	0.540	0.044	4.541***
k) Lack of opportunities and support for PAUD educational personnel professional	0.592	0.553	0.039	4.011***
l) I do not see any benefit to be gained from accreditation	0.455	0.475	-0.020	-2.055**
m) The duration of the accreditation process	0.482	0.423	0.059	6.044***
n) Complexity of the accreditation process	0.550	0.537	0.013	1.313
<b>— Question 23:</b>				
a) Shortage or inadequacy of physical learning materials	0.675	0.627	0.048	5.217***
b) Shortage of electronic or digital learning materials	0.714	0.695	0.019	2.147**
c) Insufficient internet access	0.609	0.579	0.029	3.063***
d) Shortage of PAUD education personnel with competence working with disadvantage	0.592	0.545	0.046	4.814***
e) Shortage of PAUD education personnel with competence working with special need	0.495	0.462	0.033	3.421***
f) Shortage or inadequacy of indoor space	0.624	0.592	0.032	3.341***

\* 10% \*\* 5% \*\*\* 1%; Source: World Bank staff calculations using survey data collected in March 2022

Notes: **Question 22:** To what extent if any did the following impact your ability to seek accreditation? A lot (1), Quite a bit (1), To some extent (1), Not at all (0). **Question 23:** To what extent was this PAUD's capacity to become accredited impacted by any of the following issues? A lot (1), Quite a bit (1), To some extent (1), Not at all (0). Note that the values in parenthesis represent the numerical value given to that answer to estimate the average in a way that it is more meaningful. This way, the share represents the share of principals who agreed with a statement or thought it was important, depending on the question.

**Table 10: Principals' facilitating factors as binary**

Dependent Variable : Accreditation Status	Coefficient
<p>— <b>Question 19</b></p> <p>a) The accreditation process supported our implementation of the national standards</p> <p>b) The accreditation process supported collaboration among education personnel</p> <p>c) The accreditation process improved the quality of early learning provided</p> <p>d) Our accredited status supports enrollment because it is viewed as a mark of quality</p> <p>e) Our accredited status attracts high-quality education personnel</p> <p>f) Our accreditation status is important to the families we serve</p> <p>g) Accreditation is important to me as a strategy for ensuring high quality early learning</p> <p>h) The time spent preparing for accreditation was worth the achievement</p>	<p>-0.001</p> <p>0.090***</p> <p>-0.020</p> <p>-0.022</p> <p>-0.023</p> <p>0.030*</p> <p>0.010</p> <p>-0.011</p>
<p>— <b>Question 20</b></p> <p>a) Encouragement by local education supervisors importance</p> <p>b) Encouragement by superintendent importance</p> <p>c) Financial incentives ( e.g. enrollment and teacher bonuses ) importance</p> <p>d) Resource incentives ( e.g. learning materials ) importance</p> <p>e) Professional development for yourself importance</p> <p>f) Professional development for PAUD education personnel importance</p> <p>g) Access to onsite technical assistance importance</p> <p>h) Networking with other PAUDs seeking accreditation importance</p> <p>i) A student's parent expressed preferences importance</p> <p>j) Accreditation importance as a mark of quality</p> <p>k) Accreditation importance as a legal requirement</p>	<p>0.051**</p> <p>-0.100***</p> <p>0.034**</p> <p>-0.011</p> <p>0.037</p> <p>0.004</p> <p>0.022</p> <p>-0.087***</p> <p>0.080***</p> <p>0.056**</p> <p>-0.003</p>
<p>— <b>Question 21</b></p> <p>a) The Accreditation Prerequisite Assessment ( PPA ) supports quality improvement</p> <p>b) The Visitation Assessment ( VA ) supports quality improvement</p> <p>c) The accreditation result ( PHA ) provided after the VA is valuable</p>	<p>0.033</p> <p>0.088***</p> <p>0.061***</p>
<p><b>Observations</b></p> <p><b>R - squared</b></p>	<p>10,552</p> <p>0.045</p>

**Robust Standard Errors clustered at the province level**

\* 10%, \*\* 5%, \*\*\* 1%

Notes: **Question 19:** How strongly do you agree or disagree with the following statements? Strongly Agree (1), Agree (1), Neutral (0), Disagree (0), Strongly Disagree (0) **Question 20:** Please rate the importance of the following incentives: Not important at all (0), Slightly important (0), Neutral (0), Important (1), Very important (1). **Question 21:** How strongly do you agree or disagree with the following statements about accreditation? Strongly Agree (1), Agree (1), Neutral (0), Disagree (0), Strongly Disagree (0)

**Table 11: Principals' barriers as binary**

Dependent Variable : Accreditation Status	Coefficient
<b>— Question 22</b>	
a) Not enough information or knowledge about the accreditation process	-0.033
b) Too much administrative work to do (e.g. filling out forms)	-0.020
c) Keeping up with changes to the process	0.068***
d) Managing PAUD education personnel through the process	0.090***
e) Inadequate PAUD budget and resources	-0.015
f) Government regulation and policy	0.036
g) PAUD education personnel absences	-0.022*
h) PAUD educational personnel shortage	-0.010
i) Lack of parent or guardian involvement and support	-0.015
j) Lack of opportunities and support for my own professional development	0.003
k) Lack of opportunities and support for PAUD educational personnel professional development	-0.068***
l) I do not see any benefit to be gained from accreditation	0.010
m) The duration of the accreditation process	-0.018
n) Complexity of the accreditation process	0.113***
<b>— Question 23</b>	
a) Shortage or inadequacy of physical learning materials	-0.055**
b) Shortage of electronic or digital learning materials	0.031*
c) Insufficient internet access	0.012
d) Shortage of PAUD education personnel with competence working with disadvantaged children	-0.019*
e) Shortage of PAUD education personnel with competence working with special needs children	-0.006
f) Shortage or inadequacy of indoor space	-0.001
<b>Observations</b>	10,552
<b>R-squared</b>	0.045

**Robust Standard Errors clustered at the province level**

\* 10%, \*\* 5%, 1%

Notes: **Question 22:** To what extent if any did the following impact your ability to seek accreditation? (1), Quite a bit (1), To some extent (1), Not at all (0) **Question 23:** To what extent was this PAUD's capacity to become accredited impacted by any of the following issues? A lot (1), Quite a bit (1), To some extent (1), Not at all (0)

**Table 12: Principals' facilitating factors as binary**

<b>Model Includes:</b>	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>	<b>(6)</b>
<b>— Principal's Education</b>						
High school	0.123***	0.138***	0.135***	0.125***	0.129***	0.132***
Diploma (1-3 years)	0.231***	0.217***	0.216***	0.205***	0.207***	0.210***
Bachelor (4 year diploma)	0.381***	0.346***	0.328***	0.326***	0.328***	0.330***
Master	0.444***	0.378***	0.331***	0.308***	0.307***	0.308***
PhD	0.676***	0.623***	0.368	0.428*	0.402	0.400
<b>— Principal's Characteristics</b>						
Weekly Hours		0.007***	0.007***	0.007***	0.007***	0.007***
Age		0.008***	0.007***	0.008***	0.008***	0.008***
Years in PAUDs (any role)		0.004**	0.004***	0.004***	0.004***	0.004***
<b>— PAUD Characteristics</b>						
Public Center			-0.023**	-0.027	-0.029***	-0.032***
Total Teachers			0.029*	0.025	0.026***	0.026***
Total Principals			-0.028	-0.012	-0.015	-0.028
Special Ed program			0.016	0.019*	0.019*	0.019*
<b>— SAKERNAS 2021 LFS</b>						
Employment rate				-6.477	-4.056***	0.000
Unemployment rate				0.000	0.000	13.248
Average Monthly Income				0.000	0.000***	0.000
Province Minimum Wage				-0.000	0.000	-0.000
Share of Skilled Labor Force				4.508	0.740	7.327***
Province Average Age				0.029	0.018	0.132***
Gender				-0.895	-11.201***	0.011
Urbanization				-1.154	-0.106	0.200
Education Attainment Index				-1.225	-0.428*	-1.808
Share of students				8.318	4.309***	11.688**
Share of unpaid housekeepers				5.029	2.929***	4.678
Share of agricultural labor force				-0.683	0.340	4.309
<b>— Demographic controls 2005</b>						
Wealth Index				-0.681	0.363	0.976
Children Under 5 per Household				-1.617	-1.383***	-1.786*
Province Average Age (2005)				-0.061	-0.039***	-0.163***
Average Household Size				-0.047	-0.017	0.224
Share of families with a car				3.916*	1.238	0.892
Share of families with electricity				-0.264	-0.681***	2.249
Share of families with a motorcycle				-0.508	-0.407	0.657
<b>— Geographic controls 2015</b>						
Urbanization Index (GHS)					0.017***	-0.065**
Population count					-0.000***	-0.000
UN Population count under 5					-0.002***	0.002
UN Population density					0.000***	0.000
Travel time to nearest city					-0.000	-0.003
Slope					-0.028***	0.369
Nightlights					-0.054***	-0.106
<b>— Climate controls 2015</b>						
Aridity						0.011
Land Surface Temperature						0.493
Diurnal Temperature Range						-0.155
Drought Episodes						0.047
Rainfall						-0.000***
<b>Observations</b>	11,437	10,028	9,722	9,669	9,669	9,640
<b>R-squared</b>	0.052	0.117	0.127	0.171	0.176	0.178

**Robust Standard Errors**

\* 10%, \*\* 5%, \*\*\* 1%



**Table 13: Principal perception t-test: Before 2021 and 2021–2022**

	Before 2021 ( $\mu$ )	2021 and 2022 ( $\mu$ )	Difference	t stat.
<b>— Question 19:</b>				
a) The accreditation process supported our implementation of the national standards	0.926	0.903	0.023	2.587***
b) The accreditation process supported collaboration among education personnel	0.949	0.935	0.014	1.851*
c) The accreditation process improved the quality of early learning provided	0.947	0.927	0.020	2.625***
d) Our accredited status supports enrollment because it is viewed as a mark of quality	0.952	0.921	0.031	4.146***
e) Our accredited status attracts high-quality education personnel	0.908	0.888	0.019	1.974**
f) Our accreditation status is important to the families we serve	0.822	0.790	0.032	2.488**
g) Accreditation is important for me as a strategy for ensuring high quality learning	0.906	0.875	0.031	3.081***
h) The time spent preparing for accreditation was worth the achievement	0.807	0.756	0.050	3.797***
<b>— Question 20:</b>				
a) Encouragement by local education supervisors importance	0.877	0.857	0.019	1.753*
b) Encouragement by superintendent importance	0.838	0.835	0.003	0.216
c) Financial incentives (e.g. enrollment and teacher bonuses) importance	0.842	0.833	0.009	0.741
d) Resource incentives (e.g. learning materials) importance	0.917	0.911	0.006	0.645
e) Professional development for yourself importance	0.959	0.949	0.010	1.489
f) Professional development for PAUD education personnel importance	0.959	0.959	-0.001	-0.103
g) Access to onsite technical assistance importance	0.944	0.938	0.006	0.714
h) Networking with other PAUDs seeking accreditation importance	0.863	0.846	0.017	1.510
i) A student's parent expressed preferences importance	0.846	0.805	0.040	3.313***
j) Accreditation importance as a mark of quality	0.928	0.916	0.012	1.408
k) Accreditation importance as a legal requirement	0.797	0.758	0.039	2.861***
<b>— Question 21:</b>				
a) The Accreditation Prerequisite Assessment (PPA) supports quality improvement	0.944	0.910	0.034	4.301***
b) The Visitation Assessment (VA) supports quality improvement	0.955	0.920	0.035	4.780***
c) The accreditation result (PHA) provided after the VA is valuable	0.950	0.925	0.025	3.376***

\* 10% \*\* 5% \*\*\* 1%; Source: World Bank staff calculations using survey data collected in March 2022

Notes: **Question 19:** How strongly do you agree or disagree with the following statements? Strongly Agree (1), Agree (1), Neutral (0), Disagree (0), Strongly Disagree (0). **Question 20:** Please rate the importance of the following incentives: Not important at all (0), Slightly important (0), Neutral (0), Important (1), Very Important (1). **Question 21:** How strongly do you agree or disagree with the following statements about accreditation? Strongly Agree (1), Agree (1), Neutral (0), Disagree (0), Strongly Disagree (0). Note that the values in parenthesis represent the numerical value given to that answer to estimate the average in a way that it is more meaningful. This way, the share represents the share of principals who agreed with a statement or thought it was important, depending on the question.

Note: Number of PAUD centers accredited before 2021: 6,160; Number of PAUD centers accredited on or after 2021: 1,062. The null hypothesis for the t-test is that the difference is equal to zero.

	Before 2021 ( $\mu$ )	2021 and 2022 ( $\mu$ )	Difference	t stat.
<b>Question 22:</b>				
a) Not enough information or knowledge about the accreditation process	0.547	0.611	-0.064	-3.877***
b) Too much administrative work to do (e.g. filling out forms)	0.552	0.614	-0.062	-3.753***
c) Keeping up with changes to the process	0.636	0.646	-0.010	-0.637
d) Managing PAUD education personnel through the process	0.624	0.615	0.010	0.591
e) Inadequate PAUD budget and resources	0.685	0.721	-0.035	-2.308**
f) Government regulation and policy	0.544	0.592	-0.047	-2.863***
g) PAUD education personnel absences	0.576	0.596	-0.020	-1.199
h) PAUD educational personnel shortage	0.452	0.500	-0.048	-2.881***
i) Lack of parent or guardian involvement and support	0.477	0.514	-0.037	-2.212**
j) Lack of opportunities and support for my own professional development	0.505	0.544	-0.039	-2.375**
k) Lack of opportunities and support for PAUD educational personnel professional	0.524	0.556	-0.032	-1.957*
l) I do not see any benefit to be gained from accreditation	0.444	0.478	-0.034	-2.073**
m) The duration of the accreditation process	0.405	0.426	-0.021	-1.271
n) Complexity of the accreditation process	0.507	0.541	-0.035	-2.086**
<b>— Question 23</b>				
a) Shortage or inadequacy of physical learning materials	0.612	0.629	-0.017	-1.031
b) Shortage of electronic or digital learning materials	0.677	0.701	-0.024	-1.535
c) Insufficient internet access	0.564	0.580	-0.016	-0.991
d) Shortage of PAUD education personnel with competence working with disadvantaged children	0.494	0.554	-0.060	-3.596***
e) Shortage of PAUD education personnel with competence working with special needs children	0.399	0.472	-0.073	-4.471***
f) Shortage or inadequacy of indoor space	0.557	0.597	-0.039	-2.376**

\* 10% \*\* 5% \*\*\* 1%; Source: World Bank staff calculations using survey data collected in March 2022

Notes: **Question 22:** To what extent if any did the following impact your ability to seek accreditation? A lot (1), Quite a bit (1), To some extent (1), Not at all (0). **Question 23:** To what extent was this PAUD's capacity to become accredited impacted by any of the following issues? A lot (1), Quite a bit (1), To some extent (1), Not at all (0). Note that the values in parenthesis represent the numerical value given to that answer to estimate the average in a way that it is more meaningful. This way, the share represents the share of principals who agreed with a statement or thought it was important, depending on the question.

Note: Number of PAUD centers accredited before 2021: 6,160; Number of PAUD centers accredited on or after 2021: 1,062. The null hypothesis for the t-test is that the difference is equal to zero.

**Table 14: Principals' perceptions of facilitating factors as binary (accreditation before 2021)**

<b>Regression Analysis - Principals' Incentives as binary</b>	
<b>Dependent Variable: Accreditation obtained before 2021</b>	<b>Coefficient</b>
<b>— Question 19</b>	
a) The accreditation process supported our implementation of the national standards	-0.000
b) The accreditation process supported collaboration among education personnel	0.021
c) The accreditation process improved the quality of early learning provided	0.004
d) Our accredited status supports enrollment because it is viewed as a mark of quality	-0.052*
e) Our accredited status attracts high-quality education personnel	0.020
f) Our accreditation status is important to the families we serve	-0.006
g) Accreditation is important for me as a strategy for ensuring high quality early learning	0.003
h) The time spent preparing for accreditation was worth the achievement	-0.009
<b>— Question 20</b>	
a) Encouragement by local education supervisors importance	-0.024
b) Encouragement by superintendent importance	0.037**
c) Financial incentives (e.g. enrollment and teacher bonuses) importance	-0.002
d) Resource incentives (e.g. learning materials) importance	0.003
e) Professional development for yourself importance	-0.041
f) Professional development for PAUD education personnel importance	0.057
g) Access to onsite technical assistance importance	-0.007
h) Networking with other PAUDs seeking accreditation importance	0.000
i) A student's parent expressed preferences importance	-0.019
j) Accreditation importance as a mark of quality	0.034*
k) Accreditation importance as a legal requirement	-0.018
<b>— Question 21</b>	
a) The Accreditation Prerequisite Assessment (PPA) supports quality improvement	-0.019
b) The Visitation Assessment (VA) supports quality improvement	-0.028
c) The accreditation result (PHA) provided after the VA is valuable	-0.004
<b>Observations</b>	6,676
<b>R-squared</b>	0.024

**Robust Standard Errors clustered at the province level**

\* 10%, \*\* 5%, 1%

Notes: **Question 19:** How strongly do you agree or disagree with the following statements? Strongly Agree (1), Agree (1), Neutral (0), Disagree (0), Strongly Disagree (0). **Question 20:** Please rate the importance of the following incentives: Not important at all (0), Slightly important (0), Neutral (0), Important (1), Very important (1). **Question 21:** How strongly do you agree or disagree with the following statements about accreditation? Strongly Agree (1), Agree (1), Neutral (0), Disagree (0), Strongly Disagree (0)

**Table 15: Principals' perceptions of barriers as binary (accreditation before 2021)**

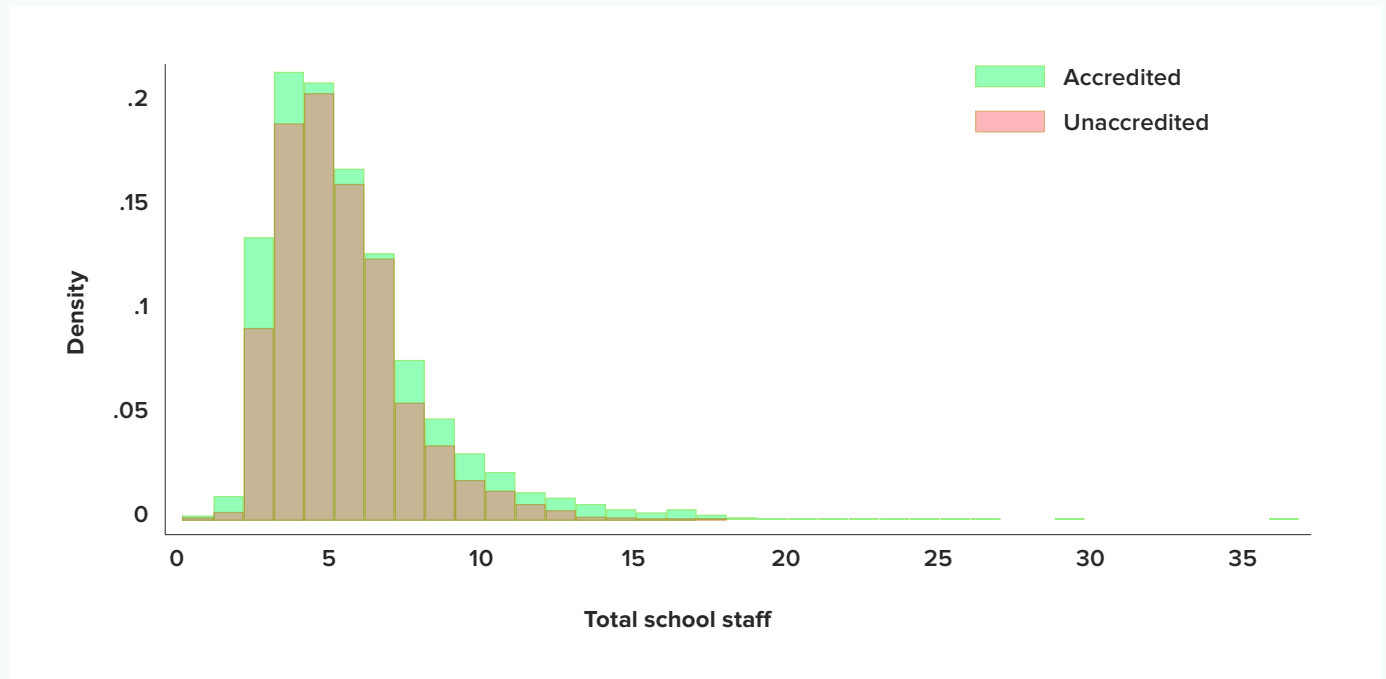
<b>Regression Analysis - Principals' Incentives as binary</b>	
<b>Dependent Variable: Accreditation obtained before 2021</b>	<b>Coefficient</b>
<b>— Question 22</b>	
a) Not enough information or knowledge about the accreditation process	0.035
b) Too much administrative work to do (e.g. filling out forms)	0.011
c) Keeping up with changes to the process	0.120***
d) Managing PAUD education personnel through the process	0.037
e) Inadequate PAUD budget and resources	0.018
f) Government regulation and policy	0.046
g) PAUD education personnel absences	-0.014
h) PAUD educational personnel shortage	-0.002
i) Lack of parent or guardian involvement and support	0.025
j) Lack of opportunities and support for my own professional development	0.013
k) Lack of opportunities and support for PAUD educational personnel professional development	-0.026
l) I do not see any benefit to be gained from accreditation	0.011
m) The duration of the accreditation process	-0.002
n) Complexity of the accreditation process	0.033
<b>— Question 23</b>	
a) Shortage or inadequacy of physical learning materials	-0.004
b) Shortage of electronic or digital learning materials	0.004
c) Insufficient internet access	0.015
d) Shortage of PAUD education personnel with competence working with disadvantaged children	0.002
e) Shortage of PAUD education personnel with competence working with special needs children	0.036***
f) Shortage or inadequacy of indoor space	0.004
<b>Observations</b>	6,676
<b>R-squared</b>	0.024

**Robust Standard Errors clustered at the province level**

\* 10%, \*\* 5%, 1%

Notes: **Question 22:** To what extent if any did the following impact your ability to seek accreditation? A lot (1), Quite a bit (1), To some extent (1), Not at all (0). **Question 23:** To what extent was this PAUD's capacity to become accredited impacted by any of the following issues? A lot (1), Quite a bit (1), To some extent (1), Not at all (0)

**Figure 14:** Number of total staff distributions by accredited and unaccredited status



**Figure 15:** Number of total children distributions by accredited and unaccredited status

