

INDONESIA**EARLY CHILDHOOD EDUCATION AND DEVELOPMENT IN
INDONESIA: AN INVESTMENT FOR A BETTER LIFE****June 2006****Human Development Sector Unit
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CURRENCY EQUIVALENTS

Currency Unit	=	Indonesian Rupiah (IDR)
IDR9,136	=	US\$1

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ABBREVIATIONS AND ACRONYMS

BAPPENAS	National Development Planning Agency (Badan Perencanaan Pembangunan Nasional)
BKB	Parental Education Program (Bina Keluarga Balita)
BKKBN	National Family Planning Board (Badan Koordinasi Keluarga Berencana Nasional)
BPS	Bureau of Statistics (Badan Pusat Statistik)
BSNP	Board of National Standards of Education (Badan Standar Nasional Pendidikan)
CDD	Community-driven Development
DGHE	Directorate General for Higher Education
DGMPSE	Directorate General for Management of Primary and Secondary Education
DGNFE	Directorate General for Non Formal Education
DGQITEP	Directorate General for Quality Improvement of Teachers and Education Personnel
ECED	Early Childhood Education and Development
EFA	Education for All
GDP	Gross Domestic Product
HDI	Human Development Index
ICBF	Colombian Institute of Family Welfare
IEA-PP	International Association for the Evaluation of Educational Achievement Pre-primary Project
KB	Playgroup (Kelompok Bermain)
MDG	Millennium Development Goal
MOH	Ministry of Health
MONE	Ministry of National Education
NAEYC	National Association for the Education of Young Children
NER	Net Enrollment Ratio
NGO	Non-governmental organization
NPV	Net Present Value
OECD	Organisation for Economic Co-operation and Development
PAUD	Directorate of Early Childhood Education (Pendidikan Anak Usia Dini)
PISA	Program for International Student Assessment
PNBAI	National Program for Indonesian Children (Program Nasional Bagi Anak Indonesia)
PODES	Village Census (Potensi Desa)
POSYANDU	Village Health Post (Pos Pelayanan Terpadu)
RA	Islamic Kindergarten (Raudhatul Aftal)
RENSTRA	National Medium-Term Planning 2004–2009
Rp	Rupiah
RPJM	Medium Term Development Plan
SES	Socioeconomic Status
SUSENAS	National Socioeconomic Survey
TK	Kindergarten (Taman Kanak-Kanak)
TPA	Childcare Center (Taman Penitipan Anak)
UNDP	United National Development Programme

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Executive Summary

The purpose of this report is to assist the Government of Indonesia to identify priorities for expanding effective and sustainable early childhood services targeted to children in the first six years of life. The report is organized in three sections. The first section explains how expanding services for young children can help to alleviate inequities in human development outcomes. A second section presents the current situation of the early childhood education and development subsector in Indonesia and emerging issues. The final section sets forth recommendations.

There has been significant progress on human development outcomes in Indonesia. However, these positive national trends mask disparities at the regional and district levels and among socioeconomic groups. A large proportion of the population still lives in poverty. There are large differences in education, health, and nutrition outcomes between districts. Furthermore, within districts, the poor get the worst of all of these inequities. Children from poor families start school later, complete fewer years of schooling, and have higher dropout and repetition rates. These children also have lower rates of participation in early childhood education and development (ECED) services. Districts with high dropout rates, for example, have low enrollment in early education services.

ECED initiatives are designed to develop “school readiness” in young children. International evidence shows that these interventions can improve the poor health and education outcomes of disadvantaged children. In Indonesia, results of an evaluation of the World Bank–supported ECED project have shown that children who participated in the project have higher levels of school readiness at age 6 than their peers who did not. A cost-benefit analysis indicates that ECED has high economic returns in Indonesia: for every \$1 invested in ECED, a return of \$7 can be expected if these services are targeted to the poor. Therefore, increased government support for ECED initiatives can be expected to improve human development outcomes, boost productivity in general, and level the playing field for poor children in particular.

The Government of Indonesia is committed to expanding ECED services. The National Medium-Term Development Plan states that the equitable expansion of access to high-quality services is the main development objective for the ECED subsector. This paper identifies five issues that the government will need to address to achieve this expansion: (a) the fact that most ECED services are concentrated in rich urban areas, with little coverage elsewhere; (b) the low level of government funding for ECED; (c) fragmentation and lack of coordination among these services; (d) the lack of a full and effective quality assurance system; and (e) limited awareness of and capacity to implement ECED services at the district level.

The paper makes specific recommendations to address each of these issues:

- ③ Deliver ECED services to poor children to improve equity and increase the positive impact of these services;
- ③ Increase public financial support for ECED;
- ③ Explore different mechanisms to encourage private provision of ECED services to the poor;
- ③ Improve coordination of policy and programs within the Ministry of National Education and between agencies responsible for the well-being of children;
- ③ Develop an ECED quality assurance system; and

③ Build district capacity to implement ECED services.

Chapter 1: Indonesia's Progress in Human Development

This chapter provides an overview of Indonesia's progress in improving human development outcomes, especially in education and health, over the last several decades. It shows that the positive national trends mask sharp disparities at the regional and district levels and among socioeconomic groups. Because early childhood education is associated with later school success, these interventions can not only improve human development outcomes and equity but also yield high economic returns.

1.1. Progress in human development outcomes has been significant

1.1.1. *Indonesia has achieved remarkable economic development success over the past two decades.* Indonesia is Southeast Asia's largest country, with 200 million people. It is currently categorized as a lower-middle-income country, with a per capita gross domestic product (GDP) of \$1,140. Until the Asian financial crisis struck in 1997, Indonesia was considered to be one of the best-performing East Asian economies, with a growth rate of 7.1 percent between 1985 and 1995. The crisis led to a slowdown in GDP growth, but since then the country has slowly been recuperating and economic growth is once again strong. Analysts predict that the economy will continue to pick up and that growth will reach 6.5 to 7.0 percent in the 2007–2010 period (World Bank 2005b).

1.1.2. *Economic development has contributed to a reduction in the proportion of people living below the national poverty line.* The consistently high rate of economic growth between 1970 and 1996 helped to reduce the proportion of the population living below the official poverty line. By 1997, the poverty rate in Indonesia was estimated to have declined from more than 50 percent of the population to less than 20 percent. As of 2005, there are still more than 35 million people living below the national poverty line, representing 16 percent of the population. (The poverty line is based on monthly per capita expenditure of Rp 108,725 in rural areas and Rp 143,455 in urban areas.) In addition, there is a large group of people—variously estimated at between one-third and one-half of the population—who are vulnerable to poverty, and who risk falling below the poverty line at any point. The government has laid out a comprehensive medium-term strategy for reducing poverty in its National Medium Term Development Plan (RPJM) in an effort to meet its Millennium Development Goal (MDG) in the area of poverty reduction. It has recently taken two important steps toward meeting the MDG: reallocating public expenditure from untargeted fuel subsidies to high-priority social sectors and rural infrastructure, and introducing a nationwide program to transfer cash to the poor to compensate for fuel price increases.

1.1.3. *Macroeconomic stability has translated into increased human development as reflected by improvements in the Human Development Index.* Indonesia has been fairly successful in translating its economic growth into advances in human development. The Human Development Index (HDI), a composite index produced by the United Nations Development Program (UNDP) based on three key indicators of well-being, shows that social welfare has been improving in Indonesia since the late 1970s. In 2005 Indonesia scored 0.697, ranking 110th of the 177 countries listed in the index, an improvement over its previous ranking. Improvements in overall human development reflect improvements that have occurred in a number of education and

health outcomes. Adult literacy rates increased from 56 percent to 88 percent of the population between 1970 and 2002. Since 1990, average net primary enrollment rates have remained above 90 percent, infant mortality rates have decreased, and life expectancy has increased. Overall, Indonesia has made substantial progress toward achieving its Millennium Development Goals in education and health (table 1).

Table 1. Indonesia's Progress toward Selected Millennium Development Goals

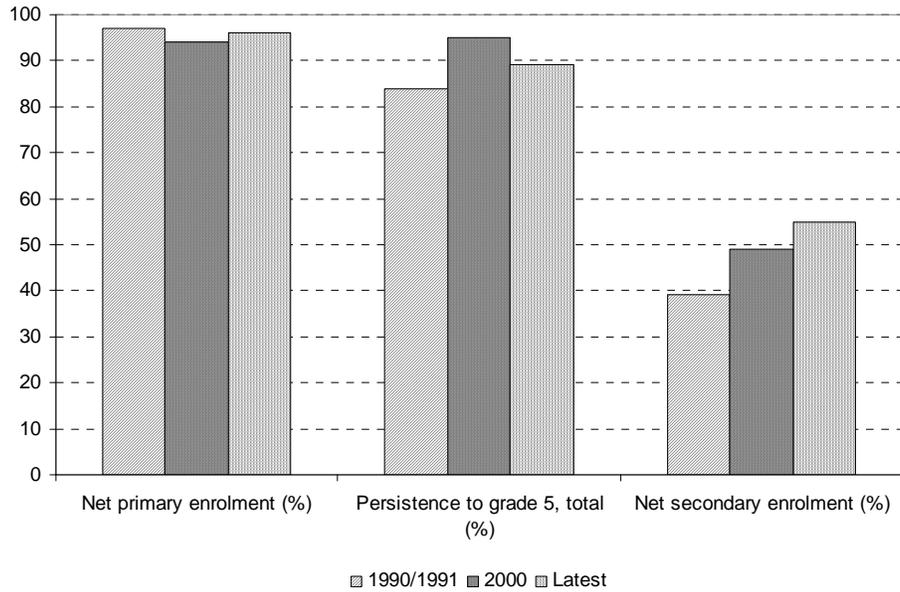
MDG goal and indicators	1990/1991	1999/2000	2003/2004
Goal 1: Eradicate extreme poverty and hunger			
Prevalence of underweight children under 5 years of age (%)	—	25	28
Goal 2: Achieve universal primary education			
Net enrollment ratio in primary school (% , children 7–12 years of age)	97	94	96
Primary completion rate (%)	94	95	101
Proportion of children starting grade 1 who reach grade 5 (%)	84	95	—
Goal 4: Reduce child mortality			
Infant mortality rate (deaths per 1,000 live births)	60	36	30
Under-5 mortality rate (deaths per 1,000 live births)	91	48	38

Source: World Development Indicators database.

1.1.4. *Indonesia has made improvements in many education¹ outcomes.* Data from the World Development Indicators database show progress on various indicators (figure 1). Literacy rates in Indonesia are quite high, with 87 percent of women and 94 percent of men achieving literacy by 2004. Net enrollment ratios for children aged 7 to 12 have been above 90 percent throughout the last decade. In the early 1990s net enrollment ratios at the primary level were around 97 percent. During the economic crisis these rates decreased slightly, but by 2003/2004 they had recovered to about the same level as in the early 1990s (96 percent). The proportion of pupils completing the fifth grade increased from 84 percent in 1991 to 89 percent in 2002. Net enrollment ratios at the secondary level rose from 39 percent in 1991 to 55 percent in 2003. Data from Indonesia's National Socioeconomic Survey (SUSENAS) show that net enrollment ratios at the junior and senior secondary levels increased about 5 percentage points from 1998 to 2003.

¹ The formal education system in Indonesia consists of six years of primary education, three years of junior secondary, three years of senior secondary, and four years of higher education. The nine years of primary and junior secondary education are considered compulsory basic education. A system of religious schools exists parallel with the secular education system at the primary-secondary level. The tertiary level consists of four years of university education or one to four years of non-university education. For more information, see annex 4

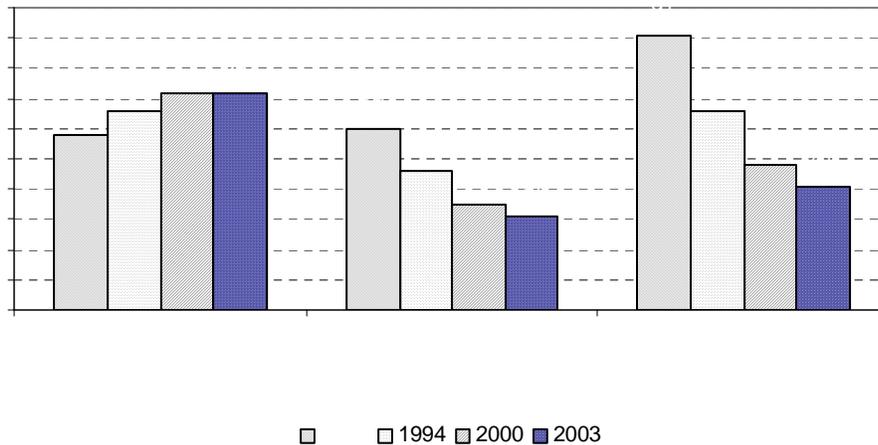
Figure 1. Participation in education and education efficiency at primary level



Source: World Development Indicators database.

1.1.5. *Child health and nutrition outcomes have also improved.* Infant and child mortality rates are on a downward slope (figure 2). Infant mortality rates declined from 79 deaths per 1,000 live births in the 1980s to 31 in 2003. Likewise, mortality rates among children under age 5 have declined by 25 percent points in the past 10 years. The prevalence of child malnutrition (based on weight for age in children under 5) has also declined slowly but steadily from 37.5 percent in 1989 to 27.5 in 2003. The percentage of children being immunized has increased.

Figure 2. Progress in Child Health Outcomes, 1990–2003

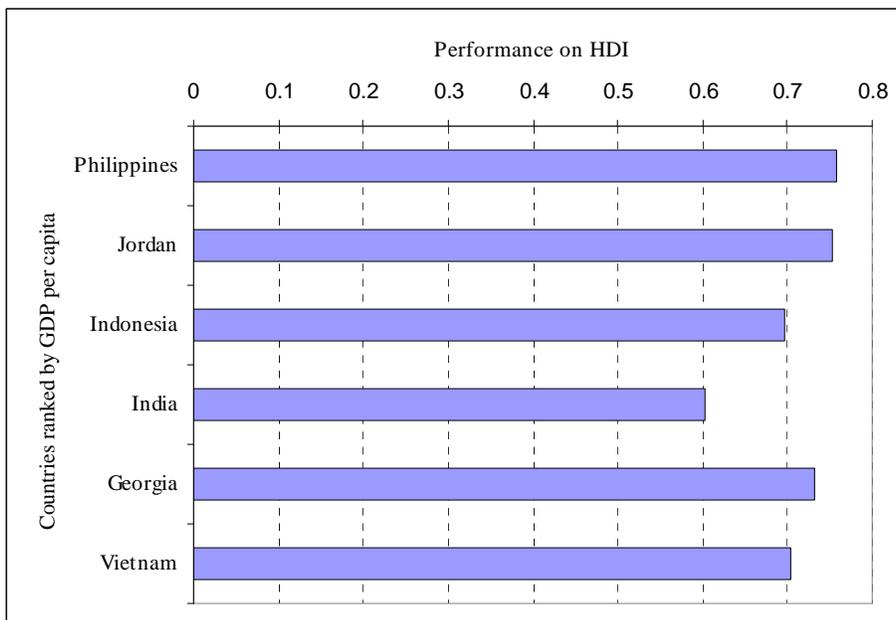


Source: World Development Indicators database.

1.2. Despite this progress, Indonesia stills lags behind its neighbors

1.2.1. *Despite strides in transforming macroeconomic gains into human development, Indonesia stills lags behind neighboring countries at similar levels of wealth.* Indonesia made rapid improvements in the Human Development Index until the late 1980s, but since 1990 its progress has tapered off. Indonesia's performance on the HDI ranks lower than that of other countries with similar per capita GDP, such as the Philippines and Jordan (figure 3).

Figure 3. Performance of Selected Countries on the Human Development Index, 2003



Source: UNDP 2005.

1.2.2. *Indonesia's health and nutrition outcomes are still worse than those of other Asian countries.* Infant mortality in Indonesia is 4.6 times higher than in Malaysia, 1.3 times higher than in the Philippines, and 1.8 times higher than in Thailand (UNDP 2004). Furthermore, Indonesia's under-5 mortality rate stands at 41 per 1,000 live births, which is higher than the average for middle-income countries and higher than the regional average for East Asia and the Pacific. The prevalence of stunting among Indonesian children is about 40 percent, compared with rates of below 35 percent in Vietnam and the Philippines.

1.2.3. *Indonesia has significant disparities in educational outcomes and is falling behind its neighbors on learning outcomes.* In Indonesia, about 20 percent of children who should be in junior secondary are not enrolled at that level (World Bank 2005c). Likewise, the quality of schooling in Indonesia is low compared to that provided in neighboring countries, which tend to outperform Indonesia on international achievement tests. For example, the Trends in International Mathematics and Science Study in 1999 showed that Indonesian eighth-graders performed less well in science and mathematics than their peers in all neighboring countries with the exception of the Philippines (World Bank 2005c). Similarly, in 2003 the Program for International Student Assessment (PISA) conducted its second three-year survey of literacy and mathematics knowledge and skills among 15-year-old students. As shown in figure 4, Indonesia

ranked behind Thailand and Korea, with more than 25 percent of Indonesian students at or below level 1 of proficiency—performance that signals serious deficiencies in students' ability to use reading as a tool for acquisition of knowledge and skills in other areas (OECD 2004).

Figure 4. Percentage of Students at Each Proficiency Level on the PISA Reading Scale

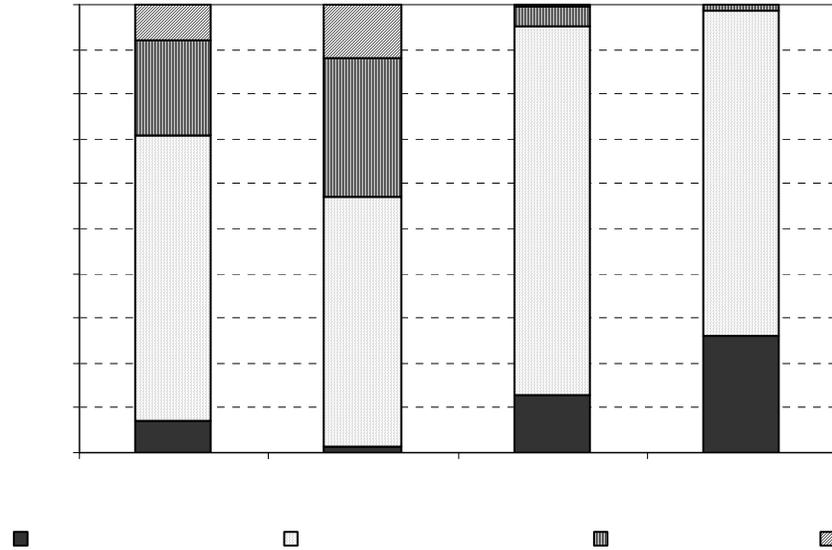
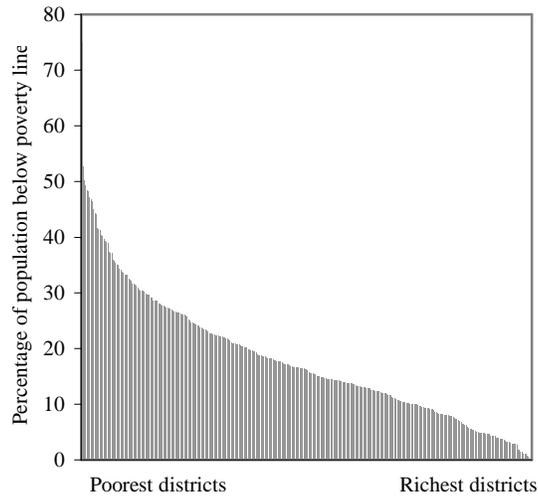


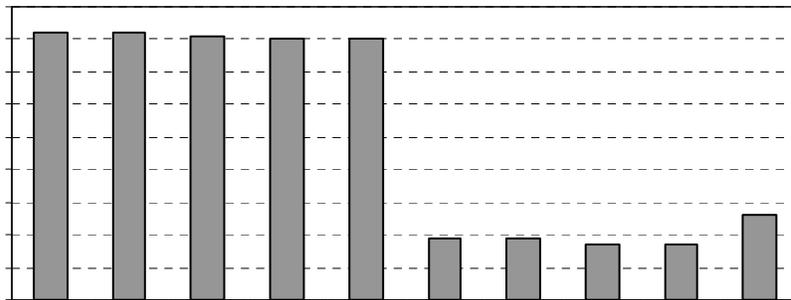
Figure 5. Percentage of Population below Poverty Line by District, 2004



Source: World Bank calculations from SUSENAS 2004.

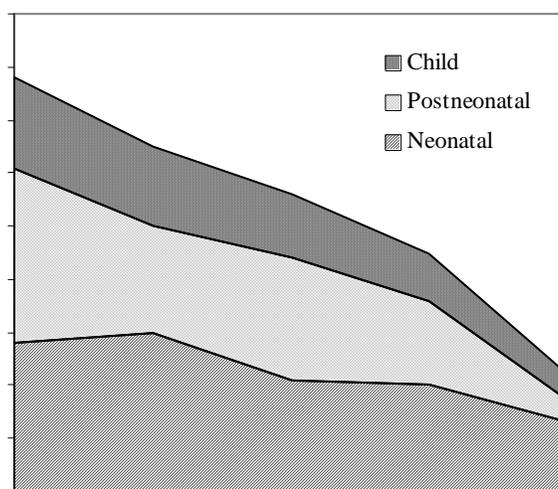
1.3.2. *The health gap among districts is wide.* Poor districts have the highest infant and child mortality rates in the country. Infant mortality in districts such as Sampang is as high as 82 per 1,000 births, compared with 17 per 1,000 in Tona Toraja (figure 6). In terms of nutritional outcomes, 60 percent of children under the age of 5 in West Kotawaringin are undernourished, which is more than twice the national average of 26 percent. In better-off provinces like DI Yogyakarta, 12.5 percent of children under 5 are undernourished. Malnutrition affects not only children in poor districts and provinces but also children living in marginal urban areas in wealthier provinces. According to Helen Keller International (1999), alarmingly high levels of wasting (defined as acute nutritional deprivation as measured by weight for height), between 20 and 30 percent, were found in urban slums in the large cities.

Figure 6. Infant Mortality Rate in Selected Districts, 2002



1.3.3. *The poor have the highest child mortality rates.* Figure 7 shows the differences in under-5 mortality rates by wealth quintile. These differences can be attributed in large part to high mortality rates among the poor during the post-neonatal period, when the infant is one month old, and during the rest of the first year of life. Most of these deaths are from preventable causes. They can be reduced by improving child nutrition (for example, by encouraging breastfeeding, providing micronutrient supplementation, monitoring growth, offering supplemental feeding, and treating parasitic infections); by ensuring access to and use of key preventive interventions such as mosquito nets, immunizations, and clean water; and by treating illness promptly with antimalarials and antibiotics. Differences in mortality rates are also linked to the educational status of mothers. Under-5 mortality rates for children whose mothers have no education are three times higher than for those whose mothers have some secondary education.

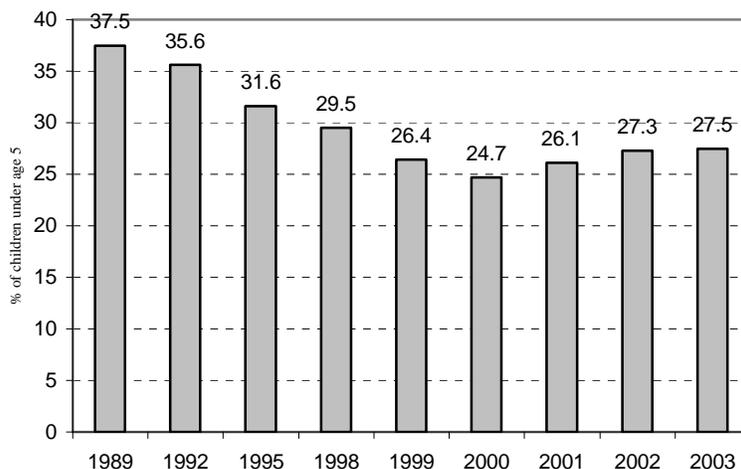
Figure 7. Under-5 Mortality by Wealth Quintile, 2002–2003



Source: World Bank calculations from *Indonesia Demographic and Health Survey 2004* (BPS/ORC Macro 2004).

1.3.4. *The nutrition gap is also wide and progress is weakening.* Although some progress has been made, Indonesia still has serious problems with malnutrition. Severe and moderate malnutrition increased from 24.7 percent in 2000 to 27.5 percent in 2003 (figure 8). There are wide disparities between provinces in rates of underweight children, ranging from 12 percent in Yogyakarta to 24 percent in Gorontalo in 2003. Countrywide, the proportion of children under 5 with severe malnutrition increased from 2.3 percent in 1989 to 8.3 percent in 2003. Children between 6 and 23 months old from rural areas are the most vulnerable to severe malnutrition (Soekatri 2005). The four main nutritional problems in Indonesia that affect young children are protein-energy malnutrition, iron deficiency anemia, vitamin A deficiency, and iodine deficiency disorder. About 40 percent of children under 5 and more than 50 percent of pregnant women suffer from iron deficiency anemia (Soekatri 2005). The poor nutritional outcomes in Indonesia are probably related to three factors: household or community deficiencies in food intake, inadequate access to health care, and household childcare behavior (World Bank 2006a). Nutritional problems during the early years typically produce delays in physical growth and brain development, often with long-lasting and irreversible effects.

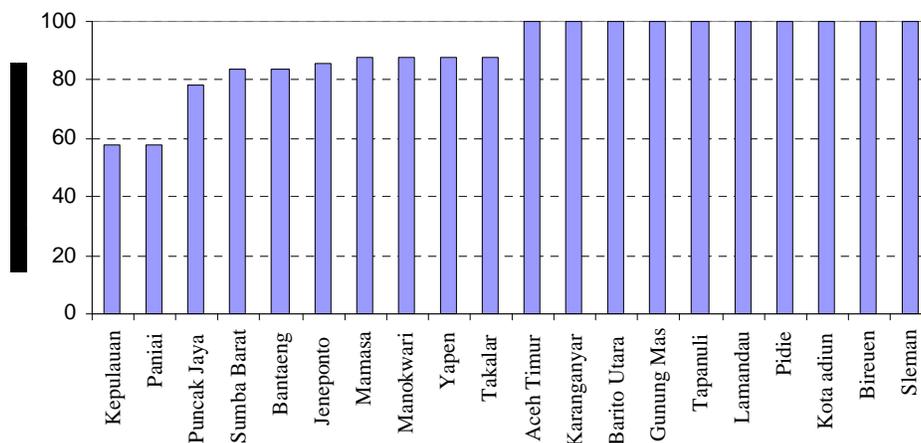
Figure 8. Prevalence of Moderate and Severe Malnutrition among Children under 5, 1989–2003



Source: Soekatri (2005) calculations based on SUSENAS data.

1.3.5. *The education gap among districts is pronounced.* Figure 9 shows the primary school net enrollment ratios (NER) in selected districts. In poor districts like Kepulauan Talaud and Paniai, NERs are below 60 percent, whereas in better-off districts primary enrollment is universal. Furthermore, the differences among provinces in net enrollment ratios become even wider at higher levels of education. At the junior secondary level, for example, provinces such as Bali have NERs above 60 percent, whereas provinces such as Papua have NERs below 50 percent at this level.

Figure 9. Primary Net Enrollment Ratio, Selected Districts, 2004

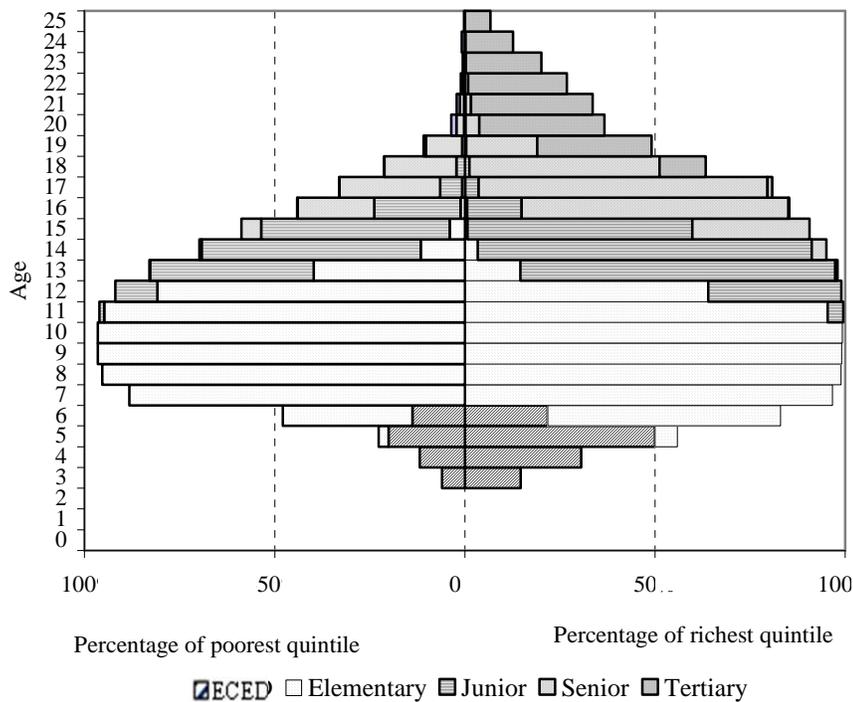


Source: World Bank calculations from SUSENAS 2004.

1.3.6. *Indonesian children's opportunities to participate in the education system differ significantly between the richest and the poorest children.* Figure 10 presents a typical profile of the poorest and wealthiest children from early childhood through adulthood. In the 0 to 5 age

group, about 50 percent children in the richest quintile participate in early childhood education and development² (ECED) programs, compared with just 20 percent of the children in the poorest quintile. By the age of 6, about 80 percent of the children in the richest quintile are enrolled in education of some sort, compared with less than half of the children in the poorest quintile. In general, the poorest children attend school later and do not complete the normal cycle of basic, junior secondary, and senior secondary. At the age of 17, more than 70 percent of the richest children are enrolled in senior secondary school compared with fewer than 30 percent of the poorest children. Similarly, by the age of 20 to 25, a large proportion of the richest young people will be enrolled in higher education programs whereas almost none of the poorest will be. As a result, the life opportunities available to these two groups differ significantly. ECED interventions that target the poorest children can positively affect their educational opportunities.

Figure 10. Education Profile of Children in the Poorest and Richest Quintiles, 2004



Source: World Bank calculations from SUSENAS 2004.

² Early childhood education and development (ECED) is a broad concept that includes various services for children from birth up to the age of 6 (that is, aged 0 to 6). Provided under different auspices and in a variety of settings, these services promote all aspects of young children's development and learning, with some services focusing on education and others emphasizing physical care, health, or nutrition. Typically, ECED services include group programs (preschools, kindergartens, and childcare centers), home-based daycare programs (sometimes known as family childcare), and home visiting or education and support programs for parents

Figure 11. Dropout Rates in Primary School by Wealth Decile, 2004



Source: World Bank calculations based on SUSENAS 2004.

1.3.7. *Better-prepared children are less likely to repeat grades.* International research shows that participation in preschool programs is associated with decreased grade repetition. For example, Colombia's PROMESA program of early childhood education and development reduced grade repetition in the early primary grades in the early 1990s. In Brazil, participation in one year of preschool is associated with a reduction of 3 to 5 percentage points in repetition rates in the primary grades (World Bank 2001). In Indonesia, approximately 60 percent of Indonesian children enrolled in grade 1 have not participated in any form of ECED services (MONE 2004c). Repetition rates in grade 1 are higher than in any other grade. Repetition rates at the primary level are four times higher among the poorest children than among their richest peers.

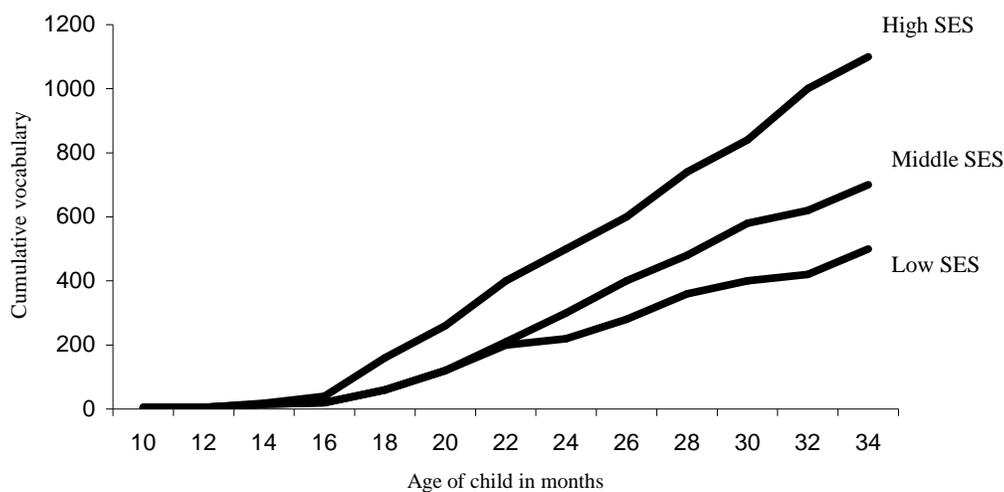
1.3.8. *Children who repeat grades have higher chances of dropping out of school.* Although there are various reasons why children drop out, including the high costs of schooling, one important cause is children's lack of preparedness to take full advantage of what schools have to offer. In Indonesia, at the primary level, the poorest children have dropout rates of between 2 and 3 percent compared with rates below 1 percent for children from high-income families (figure 11). Children from the wealthiest backgrounds also have higher enrollment rates in early childhood education programs.

1.4. ECED services can help reduce these imbalances

1.4.1. *ECED interventions are the starting point for achieving better education and health outcomes.* According to a number of studies conducted in both the developed and developing worlds, ECED contributes directly to lower malnutrition rates and to increased participation in compulsory basic education (primary and junior secondary schooling). ECED not only prepares children to enter and succeed in primary school, thus supporting the goal of universal primary

completion, but also helps them to develop and acquire the skills and competencies required for success later in life. This is especially important for poor children, who are already at a disadvantage by the time they enter school. A study by Hart and Risley (1995) in the United States showed that word accumulation begins very early in life. Comparing children from professional, working-class, and poor families, the study found that by the age of 36 months there were differences in vocabulary growth among children from the different socioeconomic groups (figure 12). Although children’s rate of vocabulary acquisition is due in part to inherent individual differences, environmental factors linked to socioeconomic status (SES) play a major role. Parents who direct more speech to their children have children with larger vocabularies. Less educated, less advantaged parents tend to talk less to their children and to use less varied vocabulary with them. The study found that the differential levels of verbal skills that were apparent at age 3 were still present at age 9, by which time the children were enrolled in the formal school system. The investigators noted that if the children in the poorest socioeconomic class were exposed to the same degree of verbal interaction as the children in the more affluent classes, their test scores at the ages of 3 and 9 were as high as those of the children in the high socioeconomic group.

Figure 12. Vocabulary Growth of Children in Their First Three Years of Life by Socioeconomic Status, United States



Source: Adapted from Hart and Risley 1995.

1.4.2. Evaluations of ECED programs have shown that these interventions can reduce disparities between disadvantaged and better-off children in terms of their education performance and their potential to succeed later in life. Recent studies (for example, Schweinhart et al. 2005; Campbell et al. 2002; Save the Children 2003; Reynolds et al. 2001) suggest that ECED interventions can reduce social inequalities by ensuring that disadvantaged children have access to better health, nutrition, and education services and by providing their parents with training to improve their parenting skills. These interventions stimulate children’s cognitive abilities, strengthen their nutritional status, monitor their growth, and enhance the skills of those who take care of them, usually their parents. In this way they help to compensate for the risks and stresses that stem from a disadvantaged early environment.

1.4.3. *Evidence from the United States shows that early childhood interventions can reduce poor outcomes in health and education among disadvantaged children.* Research on the impact of ECED programs in developed countries has shown that disadvantaged children who participate in high-quality ECED programs have higher verbal and intellectual development during early childhood and tend to be more successful in school and later in life than children who are not enrolled in these programs. The Perry Preschool program in Michigan was a high-quality two-year program targeted to low-income children aged 3 to 4.³ Participants were followed from their enrollment through the age of 40. This longitudinal evaluation showed that children who participated in the program had higher earnings, were more likely to hold a job, committed fewer crimes, and were more likely to have graduated from high school than their peers in a control group (Schweinhart et al. 2005). The evaluation of the Carolina Abecedarian Project, which also targeted children from low-income families,⁴ showed that children who had participated in the program had higher cognitive test scores from the toddler years onward and better academic achievement in both reading and math from the primary grades through young adulthood. By the age of 21 they had completed more years of education and were more likely to have attended a four-year college than nonparticipating children. Furthermore, the mothers whose children participated in the program had higher educational and employment status than mothers whose children were not in the program (Campbell et al. 2002). A third study looked at the Chicago Child-Parent Center program, a comprehensive ECED program in the Chicago public schools that provided educational and family support services to low-income children. The study showed that participation in the program was associated with several behavioral outcomes that predict later economic and social well-being, including higher cognitive skills, greater school achievement and attainment, lower use of school remedial services, lower grade retention, higher school completion by the age of 20, and lower rates of juvenile arrests by the age of 18 (Reynolds et al. 2002). Evaluations of family support programs that target children aged 0 to 3 show that these programs have had positive effects on both children and caregivers. An impact evaluation of the Early Head Start programs found that 3-year-old children in the program performed significantly better on a range of measures of cognitive, language, and socio-emotional development than a randomly assigned control group. In addition, parents scored significantly higher than the control group parents on many aspects of the home environment and parenting behavior (Administration on Children, Youth, and Families 2002).

1.4.4. *Worldwide evidence demonstrates the positive impact of ECED on education and health outcomes.* A study of an ECED program in Nepal showed dramatic gains made by children who participated in the program compared with children who did not (Save the Children 2003). First, the program appeared to help increase gender equity in early primary enrollment. Participation in primary school increased for those children who attended the ECED program. In addition, children who participated in the ECED program had higher pass rates on end-of-year examinations in grade 1 and 2 than children in the control group. These higher pass rates translated to higher promotion rates and lower dropout rates when compared to the national average. The study also found that the parents of children who participated in the program were much more engaged with their children's learning and schools. Another study in Turkey evaluated a mother-child program that provided early enrichment for young children and training

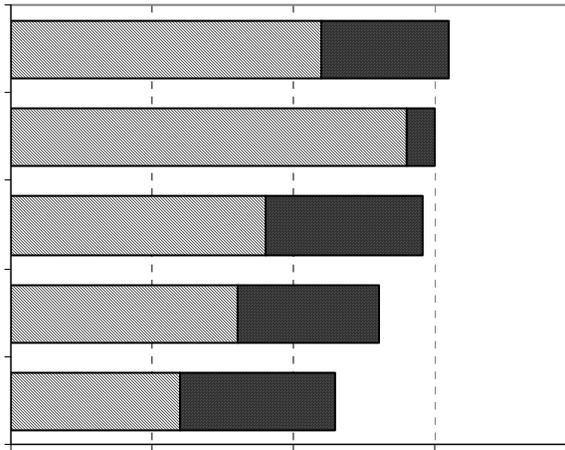
³ The program employed qualified teachers with bachelor's degrees who received regular training and support. It consisted of daily two-and-a-half-hour classes using a child-centered curriculum.

⁴ Children who participated in the Carolina Abecedarian Project received full-time, high-quality educational intervention in a childcare setting from infancy through age 5.

and support for their mothers (Kagitcibasi, Sunar, and Bekman 2001). The study followed a group of children who participated in the program and tracked their performance at school and their health, employment, and earnings into adulthood. It was found that children who had participated in the ECED services completed a higher level of education and had a lower probability of unemployment than children who had not benefited from ECED interventions. A recent longitudinal study conducted in the Philippines similarly found that the nutritional status of children who participated in ECED improved in the short term and their cognitive, social, motor, and language development were also significantly improved (Lee et al. 2006). A study in Jamaica followed the development of 18 children who were hospitalized for severe malnutrition and who participated in a three-year home-visiting program (Grantham-McGregor et al. 1991, 1994). The psychosocial intervention consisted of weekly or twice-weekly home visits with toy demonstrations. The authors compared these children with two other groups who were also hospitalized but who received only standard medical care for three years. The long-term follow-up at age 17 showed that stimulation intervention had lasting positive effects compared to nutrition intervention alone. Another study in rural Guatemala showed that giving nutritional supplements to children 6 to 24 months of age increased the probability of them attending school by 5.6 percentage points (World Bank 2005e).

1.4.5. Indonesian evidence also demonstrates the positive impact of ECED on education and health. Results of the evaluation of a World Bank–supported ECED pilot project suggest that children who participated in the project had higher scores for school readiness at the age of 6 than those who did not participate. From 1997 to 2005, the World Bank supported the Directorate of Early Childhood Education (PAUD) of the Ministry of National Education (MONE) in the implementation of 600 early child development pilot centers in 12 districts in the provinces of Bali, West Java, Banten, and South Sulawesi. The centers, built to high standards, offer high-quality early education services to children aged 4 to 6. The high quality of the services is due in large part to the fact that the teachers employed by these centers have received rigorous training—at a minimum, two years of postsecondary education and specialization in ECED. The MONE commissioned an independent impact evaluation of the ECED pilot centers, and the centers were assessed in 2002 and 2004. The evaluations followed the progress of 235 children who attended the ECED centers and whose ages were 2 and 4 at the time of the first evaluation. The test scores of these children were compared with those of an equal number of children randomly selected from the same villages who did not attend the centers. Results suggest that children who participated in the pilot project for two years had higher school readiness scores at age 6 than those who had not, after taking into account any potential confounders and using a propensity score approach to counter any potential selection bias. The project appears to have had an even greater effect on the most disadvantaged children who live in poorer districts or whose parents have little education (figure 13).

Figure 13. Impact of the ECED Pilot Project on Children’s School Readiness Test Scores, by Parents’ Educational Level



■

■

cost ratio of 2.26 to 1 for children at risk. In Brazil, a study of the impact of just one year of preschool showed a benefit-cost ratio of 2 to 1 (World Bank 2001).

1.5.3. *A cost-benefit analysis of ECED in Indonesia showed high economic returns.* Using the methodology developed by Van der Gaag and Tan (1998), the World Bank team conducted a cost-benefit analysis in 2005. The analysis focused on the medium-term education benefits (increased enrollment in each level of education and decreased repetition and dropout rates) and on a long-term increase in labor earnings due to higher educational attainment. The results showed that there is the potential for impressive economic returns to Indonesia from the expansion of ECED programs. Benefit-cost ratios of 6 to 1 can be expected on average. This means that for every \$1 invested in ECED, there will be a return of at least \$6 (see annex 4).

Table 2. Summary of Benefit-Cost Ratios for ECED Interventions

Group	Benefit-cost ratio
Children from poorest expenditure quintile	6.93
Children from lower expenditure quintile	5.33
Children from middle expenditure quintile	4.71
Average	6.01

Source: World Bank calculations.

1.5.4. *Cost-benefit analyses in Indonesia have also shown that the benefits are even greater if ECED interventions are targeted to poor children.* Table 2 presents the benefit-cost ratios for three groups. Group 1 consists of children from the poorest quintile, group 2 consists of those from the lower quintile, and group 3 consists of those from the middle quintile. According to these data, the most disadvantaged children benefit the most and have the highest benefit-cost ratio—nearly \$7 for every \$1 invested.

1.5.5. *ECED interventions can be expected to yield other benefits in the short, medium, and long term.* Since these other benefits are harder to quantify, they were not considered in the cost-benefit analysis. They include benefits to the individual in terms of improved nutrition and physical and mental health; benefits to families when mothers are able to make an earlier return to the workforce; and benefits to society in reduced health care costs and crime-related costs. Mustard (2005) noted that children’s experiences in their early years (as well as in utero) affect their long-term health and their behavior and learning. An adverse early environment, which may be due to social disadvantages, typically includes a lack of stimulation for young children as well as various types of deprivation and stress. Being in an adverse environment during the early years has a cumulative effect on a child’s health, behavior, and later development. Recent brain development research and longitudinal studies have shown that individuals exposed to stressful experiences in their early years are at higher risk for long-term health problems such as coronary heart disease, diabetes, and depression. Furthermore, children who do not receive proper care, nutrition, and attention in their formative years are at risk of developing behavioral problems, including conduct disorders, emotional disorders, and attention deficit disorders in later life.

Table 3. Cost-Effectiveness of ECED Programs

	ECED + regular primary education: Indonesia	No ECED + special primary education: Break-even point	No ECED + special primary education: United States	No ECED + special primary education: Indonesia
Unit cost ratio		1.1	1.9	4.0
Ages 0–6 (7 years)	\$12	\$0	\$0	\$0
Ages 7–12 (6 years)	\$230	\$244	\$437	\$920
Total	\$1,466	\$1,466	\$2,622	\$5,520
Multiple of ECED cost	1.00	1.00	1.79	3.77

Source: World Bank calculations.

Note: All costs are per year. Numbers may not sum to total due to rounding.

1.5.6. *Analyses have also shown that ECED programs are more cost-effective than special education programs provided to children at a later age.* Special education services are targeted to children who have learning or social-emotional disabilities and other special needs. Given the high costs of offering special education services in the primary grades, investing public resources in ECED programs seems to be a more cost-effective way of helping disadvantaged children to complete primary education. International research (for example, Schweinhart et al. 2005) has shown that poor children who participate in high-quality ECED programs are less likely than other poor children to need special education services later in their childhood. For the analysis of the Indonesian ECED project, the authors assumed that a child who goes through a high-quality ECED program would develop better cognitive and social skills and greater readiness for primary school. Those who do not go through an ECED program would not be as ready for school and most likely would need special attention and assistance in order to complete primary education, which would require additional public resources. It is estimated that the per-student cost of regular primary education in Indonesia is about \$230 per year (Abbas 2004) and the equivalent cost of special primary education is \$920, about four times higher. The cost of providing ECED is estimated at \$12 per year. Therefore, the ratio of the costs of providing ECED to the costs of providing special education to disadvantaged children is estimated to be 1 to 3.77 on average in Indonesia (table 3).

Chapter 2: Early Childhood Education and Development in Indonesia

This chapter describes the existing ECED policies and programs for children from birth to up to age 6 and identifies the emerging challenges currently facing the Indonesian government.

2.1. The government's goal and vision for ECED

2.1.1. *The Government of Indonesia is fully committed to providing ECED services.* Several strategic government documents underscore this commitment: the National Education System Act 20/2003; the National Plan of Action (Indonesia's Education for All plan); Presidential Regulation 7/2004 on National Medium-Term Planning for 2004–2009; and Government Regulation 19/2005 on National Standards of Education. These documents reinforce the important role played by the education sector in promoting early childhood services. Early childhood education and development programs prepare young children for primary school but also contribute to the government's national development vision of a peaceful, just, and democratic Indonesia (Sardjunani and Suryadi 2005). Early childhood education and development programs are designed to generate a synergy of good health, good nutrition, and appropriate cognitive stimulation for healthy development in the early years, which in turn is vital for achieving high levels of education and human capital formation later in life.

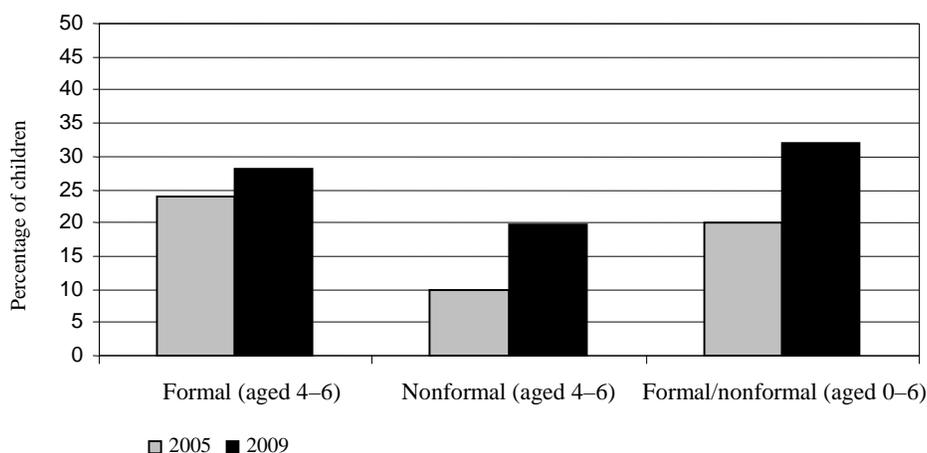
2.1.2. *The government has established early childhood education and development as a priority in the National Program for Indonesian Children (PNBAI) and the Education for All (EFA) National Plan of Action.* The PNBAI is a reference program for all government agencies involved in the welfare of children. It outlines broad goals for a 15-year period, including extending early childhood education services to poor children, enhancing the quality of the information system, and improving the quality of ECED services. The first goal of the EFA National Plan of Action is to increase child survival and child development and to encourage parents to recognize the importance of child development. The EFA targets include increasing participation in early education services for children aged 0 to 6 from 28 to 75 percent, increasing care services for children aged 0 to 6 from 37 to 85 percent, increasing the number of private providers of ECED, and improving the quality of services.

2.1.3. *The National Education System Act 20 of 2003 provides the basis for the expansion of early childhood education services in Indonesia.* The law is ambiguous regarding the status of early childhood education services within the education system itself. The law recognizes early childhood education and development as a stage preceding basic education, but ECED services are not part of the formal education system, so participation is not compulsory. The law explains that ECED services can be formal, nonformal, or informal (as defined in article 28 of the law). Formal services are the responsibility of the Directorate General for Management of Primary and Secondary Education (DGMPSE), and nonformal services the responsibility of the Directorate General for Non Formal Education (DGNFE). Care services delivered through the parent education and the nutrition program are considered to be informal services.

2.1.4. *The National Medium-Term Planning 2004–2009 (RENSTRA) stipulates that one of the development priorities for the education sector is the equitable expansion of access to high-*

quality ECED services. The RENSTRA is a key planning document for the education sector that outlines policy directions for five years, from 2004 to 2009. The document identifies four policy guidelines: to expand education services and provide more equitable access; to increase the quality of services; to increase the relevance of education to national development; and to strengthen education management and efficiency. With respect to early childhood education and development services, the RENSTRA calls for expanding access to services with equality, improving the quality, and strengthening governance and accountability. For children aged 4 to 6, the plan envisions an increase in the proportion of children who are enrolled in nonformal services, from 10.0 percent in 2005 to 19.8 percent by 2009, and an increase in the proportion of children enrolled in formal services, from 24.4 percent to 28.0 percent by 2009. The percentage of children aged 0 to 6 served by either formal or nonformal services is expected to increase from 20.3 percent to 31.8 percent during the same period (figure 14).⁵

Figure 14. Percentage of Children Enrolled in ECED by Type of Service, 2005 and 2009 Projection



Source: MONE 2005.

2.1.5. *The MONE's objective is to expand and enhance both formal and nonformal early childhood education and development services in Indonesia.* The strategy calls for major investments to expand services, improve their quality and relevance, increase accountability, and improve governance. The expansion of services will be achieved by constructing new model ECED facilities and optimizing the use of existing ones, by encouraging community participation in the implementation of services, and by providing subsidies in the form of block grants to expand services in poor communities (for a description of the block grants program see below). The quality and relevance of ECED services will be enhanced by developing model learning centers, enhancing teacher training, and developing high-quality curricula and teaching materials. Finally, governance will be strengthened and accountability increased by improving the collection of information on ECED services and by enhancing the monitoring and evaluation of policies and programs. The key recommendations proposed in this paper have

⁵ There is a discrepancy in enrollment rates between the EFA plan and the RENSTRA. The EFA data refer to all early child development programs, including care services and health services, whereas the RENSTRA data refer only to those services provided by the Ministry of Education.

been developed to guide the MONE to effectively carry out the activities proposed in the RENSTRA.

2.1.6. *The MONE encourages private provision through the use of block grants.* The two directorates, the Directorate General for Non Formal Education and the Directorate General for Management of Primary and Secondary Education (DGMPSE), support a block-grant subsidy system to expand the provision of ECED services by the private sector, including for-profit, nonprofit, and community-based organizations. A share of the ECED budget is annually allocated to funding these block grants, and this allocation is divided between the two directorates, with each following its own procedures for disbursing the money.⁶ Through this block-grant system, the MONE offers subsidies to private providers to expand and operate ECED services in privately owned facilities (MONE 2003b). The funds are channeled directly to the providers from the central government. The grant covers only part of the providers' operating and start-up costs, as parents are expected to bear some part of the costs through user fees.

2.2. ECED services in Indonesia

2.2.1. *A number of ECED services are currently being implemented in Indonesia.* Several basic services are provided to Indonesian children from birth up to age 6: the Posyandu program, the Bina Keluarga Balita parent groups, kindergarten and Islamic kindergarten, and nonformal early childhood education and development services. The government also supports pilot programs that offer comprehensive services: the Pusat PAUD centers and the Taman Posyandu. Table 4 summarizes some of the key elements of these ECED services.

2.2.2. *The Directorate General for Management of Primary and Secondary Education (DGMPSE) supports formal "model" kindergarten programs.* Taman Kanak-Kanak (TK) programs offer formal center-based preschool education to children aged 4 to 6. DKPE supports TK centers at the national, provincial, and district levels. These TKs require about Rp 300 million in investment costs and constitute models of what TK programs nationwide should look like. Publicly funded TKs represent a small share of the total number of TK centers. Of almost 48,000 kindergartens in the country, only 305 are publicly supported, and 213 of these consist of the model programs. The rest are privately run and located in urban areas, where they serve concentrations of well-off families (see point 2.4).

2.2.3. *Currently, DGMPSE is piloting an alternative TK model called "one-roof kindergartens."* The idea behind this is to create TK classrooms as annexes to existing schools. The school director is supposed to manage the kindergarten classroom. The only way in which these kindergartens differ from regular or model public kindergartens is that the regular/model kindergartens are independent facilities. The objective of the one-roof kindergarten program is

⁶ The DGMPSE's block-grant program supports the improvement of existing kindergarten facilities. Grants are for Rp 30 million and are offered for such expenses as teacher training and learning materials. Information on these block grants is disclosed at the annual meetings of the TK providers association and the TK teachers association. Grants are open to all providers, both public and private, and are allocated based on quotas by province and district. PAUD block grants are meant to cover the costs of setting up and operating nonformal ECED services or integrating early education and psychosocial stimulation into existing services such as Posyandu. The size of the block grants varies depending on the type of program: grants for integrating educational activities into the Posyandu amount to Rp 3 to 5 million, while grants for childcare programs are Rp 30 million each. In the past three years, PAUD has supported 4,000 continuing institutions/programs and about 3,000 new PAUD initiatives (including Posyandu and childcare/playgroups).

to expand access to TK by setting up kindergartens in unused primary classrooms that have become available as a result of declines in primary enrollment. This model is being piloted in a few provinces. Given the high cost of setting up an independent TK facility with its own administration, one-roof TKs are good way to save on start-up costs.

2.2.4. Religious institutions and associations are also involved in providing kindergarten services. Under the auspices of the Ministry of Religious Affairs and through its subdirectorate for Islamic education, about 11,500 Raudhatul Afthal (RA) Islamic kindergarten programs were set up by 2000 (UNESCO 2003a). The main difference between RAs and TKs is the curriculum. The curriculum approach endorsed by DGMPSE has a strong emphasis on pre-academic skills, although recent changes have emphasized a more integrated or thematic curriculum with active learning approaches. The emphasis of the RA curriculum, on the other hand, is on Islamic teachings and moral education, especially memorization of the Koran.

2.2.5. The Directorate General for Non Formal Education, through its Directorate of Early Childhood Education (PAUD), has the mandate to expand nonformal ECED services to children who are not being reached by formal programs. Since its creation, the PAUD has launched a variety of nonformal interventions geared to children aged 2 to 6 who are not targeted by formal services, with a particular focus on children aged 2 to 4. These include playgroups called Kelompok Bermain (KB), daycare centers known as Taman Penitipan Anak (TPA), and similar PAUD approaches called Satuan Padu Sejenis. The KB playgroups are center-based programs that focus on the socio-emotional stimulation of the young child through a “learning by playing” methodology. The MONE’s guidelines for playgroup programs recommend that services should be offered for a minimum of four hours per day, three times per week (MONE 2004a), but in reality, the frequency and intensity, and thus the quality, of the services vary depending on the situation and condition of the center and community. In the TPA daycare facilities, the PAUD supports educational programs for children from 3 months to 6 years old (MONE 2004b). Through the so-called “similar PAUD” services, PAUD introduced an educational component to existing care services (Posyandu program/BKB), which will be discussed below.

2.2.6. The government supports ECED services through an extensive system of “care services” that focus on the health and nutrition of younger children (infants and toddlers aged 0 to 3). Care services play an important role in supporting families in their efforts to nurture and educate their children. The coverage of care services is larger and more equitable than that of early childhood education services, but care services are delivered less frequently (on average, activities are conducted once a month). Unlike services delivered through the MONE, which focus on the educational component of early childhood development, the focus of care services is on health and nutrition and on education of parents. Three government agencies are involved in providing these services: the Ministry of Health, the Ministry for Women’s Empowerment, and the National Family Planning Board.

2.2.7. The Bina Keluarga Balita (BKB) program, which is supported by the National Family Planning Board (BKKBN), is the oldest care program. The program was initiated in the early 1980s in an effort to empower women. The BKB program offers group sessions in parental education once a month to groups of about 15 mothers with their children. BKKBN estimates that in 2003 there were 89,000 active BKB groups in Indonesia. Each group is led by a cadre, a

volunteer mother from the community, usually the wife of the village head, who has received some pre-service training. At the moment, the BKB groups receive only limited support from BKKBN, and most of the groups are not functioning effectively. In the past, BKB leaders have not received any form of training, and the materials that are available are out of date. Despite the dwindling of government support to the program, there is potential to use the lessons of the BKB experience in educating mothers in parenting skills in the context of other nonformal and formal programs.

2.2.8. The Posyandu program is Indonesia's national community-based nutrition program. During the 1970s and 1980s, Posyandu was a subcomponent of a successful national community program called the Family Improvement Nutrition Program. Posyandus, or village health posts, offered monthly growth monitoring of babies, complementary feeding with commercially fortified foods such as Vitadele, and parental education about nutrition, family planning, and disease prevention. Today, although Posyandu centers exist in almost every village, very few of them function well anymore. During the economic crisis, most Posyandus became inactive as the cadres who ran them had to look elsewhere to find jobs to support their families. In the late 1990s, the Ministry of Health (MOH) initiated the Posyandu Revitalization Project to reinstate the Posyandu as the village nutrition center. Unfortunately, the revitalization was limited to only a few training sessions explaining the importance and distribution of supplementary feeding. More recently, in 2005, MOH introduced a special budget for Posyandus to cover their operational costs, including the leader's transportation and the costs of complementary feeding activities. It is expected that this additional budget allocation will enhance the services provided by the Posyandu program.

2.2.9. The government has some experience in implementing comprehensive ECED programs. Comprehensive ECED programs address the nutrition and health needs of young children as well as their cognitive and socio-emotional needs, and they involve the parents. In the past few years the MOH, with technical and financial support from UNICEF, has been supporting the Taman Posyandu, a pilot program that integrates all of these elements and provides all of its services through the Posyandu centers. Taman Posyandu builds on existing Posyandu services but also includes child and parent educational activities. The objective of the program is to ensure that children have access to high-quality ECED stimulation at home and in the local community. It also seeks to raise the awareness and skills of parents, caregivers, and practitioners of how ECED practices and early learning can be carried out in a manner consistent with local cultural norms and practices. Taman Posyandu was piloted in Kabupaten Sumedang, West Java. Now UNICEF is preparing to extend the work to 30 poor villages in Banten and East Java, and is adapting it to implement in Aceh.

Table 4. ECED Services in Indonesia

Type of program	Primary government agency responsible	Age	Setting	Focus	Hours
TK (kindergarten)	DGMPSE (MONE)	4 to 6 yrs.	Center	School readiness	2 hours daily
RA (Islamic preschool)	MORA	4 to 6 yrs.	Center	School readiness + religious teaching	2 hours daily
KB (playgroup)	PAUD (MONE)	2 to 6 yrs.	Center or home-based	Play-based education, mental, and emotional development	2 hours, 3 times per week
TPA (childcare)	PAUD MSW	3 mo. to 6 yrs.	Center: near residential areas or close to workplace	Care services for children of working parents	8 to 10 hours daily
Posyandu	MOH	0 to 6 yrs.	Center or multiple-purpose area in village	Health services for mothers and children	2 hours, 2 times per month
BKB (parent education group)	BKKBN MEW	0 to 5 yrs.	Home, village facility, Posyandu	Parenting education	2 hours, 2 times per month

Source: UNESCO 2005.

2.3. Lessons learned from the ECED pilot centers

2.3.1. Between 1997 and 2006, the PAUD, with financial and technical support from the World Bank, implemented the ECED pilot project. The project's overall objective was to support the short-term and long-term early child development needs of poor children from birth to age 6 in the selected villages (World Bank 1998, 2004a, 2004b; Phelps 2004). The immediate short-term objective was to provide emergency complementary feeding to infants between 6 and 24 months old. The longer-term objectives were to increase access and use of ECED programs targeted to poor children and to improve their quality. About 600 ECED pilot centers known as Pusat PAUD were constructed in selected districts in three provinces (Bali, West Java, Banten and South Sulawesi). The pilot centers were designed to function as integrated child development sites offering a range of services under one roof, including childcare, playgroup, kindergarten, and Posyandu. The project also supported a teacher training program and ECED information and education campaigns.

2.3.2. *The project was successful in producing the desired long-term outcomes in the children.* The impact evaluation (Cibulskis 2005) showed that children attending the ECED pilot centers had higher scores for school readiness at the age of 6 than those who did not participate. The results suggested that the effect was larger for children from less affluent backgrounds as measured by parents' educational level (see section 1.4, figure 13). A team of local consultants in collaboration with the MONE selected the instruments used for the evaluation. For the pre-intervention portion of the evaluation, the children were assessed using a battery of tests developed in the context of the International Association for the Evaluation of Educational

Achievement Pre-primary Project (IEA-PP) study in Indonesia.⁷ For the post-intervention portion, the IEA-PP battery of instruments and a standardized school readiness instrument were used. However, the effects found in the older children were not observed in children 2 to 4 years old. This may reflect the difficulties involved in administering standard tests to young children, but the precise reasons are not known.

2.3.3. *The evaluation showed that the project had some success in reaching poor families.* Although some of the children who participated in the ECED centers appeared to be from more affluent backgrounds, many others came from families whose parents were farmers with little schooling. Of those children who were enrolled in the program, 21 percent came from the poorest quintile (as measured on a wealth index constructed using principal component analysis based on four housing characteristics: condition of house, flooring, toilet, and water source). The evaluation also showed that the main reasons why children did not participate in the programs were related to accessibility: cost, distance, and the availability of an adult to accompany the child to the center. For parents from less affluent backgrounds, cost was the most significant barrier. For better-off families, distance and the availability of someone to accompany the child were the main reasons given for not participating.

2.3.4. *The project indirectly helped to build momentum for the expansion of ECED services.* The project led to the creation of the PAUD within the MONE. The PAUD in turn created political momentum and institutional space for scaling up ECED, particularly nonformal programs for poor children. Over the past six years, the PAUD has been very successful in building awareness about the importance of the early childhood agenda by conducting campaigns to build support for ECED services and by exploring new ways to deliver early childhood education services. As part of the awareness-building process, the PAUD has been supporting two networks: the PAUD Forum and the PAUD Consortium. Through these networks, leaders in the field of ECED and civil servants from the different government agencies involved in children's welfare have been able to get together to discuss issues related to early child development, propose policies and programs, and develop guidelines.

2.3.5. *Several lessons can be learned from the pilot experience.* First, training is key to providing a high-quality program. Teachers working in the pilot centers received two years of postsecondary education and were trained in the implementation of a developmentally appropriate child-centered curriculum. Second, local governments and communities need to be involved to ensure sustainability. The pilot centers, financed and supervised by the MONE, were conceived when Indonesia was still a centralized country. However, as the project was coming to an end, Indonesia underwent significant changes and became one of the most decentralized countries in the world. To ensure the centers' sustainability, the MONE and the communities had to seek the support of local governments to cover teachers' salaries and operational costs. Third, communities need to be involved in the decision-making process to promote accountability and to ensure that the interventions are relevant to local needs. The pilot centers were built in remote locations, and parents had to travel long distances with their children to enable them to participate in the programs. Other delivery mechanisms, such as home-based interventions,

⁷ The IEA-PP is a comprehensive study of early childhood care and education in 15 countries. The purpose of the study was to identify the settings in which young children of various nations spend their time, to assess the quality of life for children in these settings, and to determine how these experiences affect children's intellectual, social, and academic development measured at age 7.

would have reached more children at a lower cost. A more flexible and cost-effective approach would be to let local communities decide what type of ECED services they need and how they can best be delivered.⁸ Fourth, socialization on the importance and benefits of nonformal ECED interventions is necessary. As the pilot project was phased out, most of the pilot centers were converted into formal TK centers. Today there is still the notion among local governments and communities that the formal approach is better. Communities need to be made aware of the value of integrated ECED interventions and of the fact that high-quality ECED can be provided in nonformal as well as formal settings.

2.4. Emerging issues and challenges

The development of these new initiatives has been rapid and in many ways exciting. Yet the ECED subsector currently faces several important challenges.⁹ These include:

- ③ Low participation in ECED services nationwide, with higher concentration in rich urban areas;
- ③ The low level of government funding for ECED;
- ③ A high proportion of private investment and provision that does not benefit the poor;
- ③ Fragmentation and lack of coordination among ECED services;
- ③ The lack of a full and effective quality assurance system; and
- ③ Limited awareness of and capacity to implement ECED services at the district level.

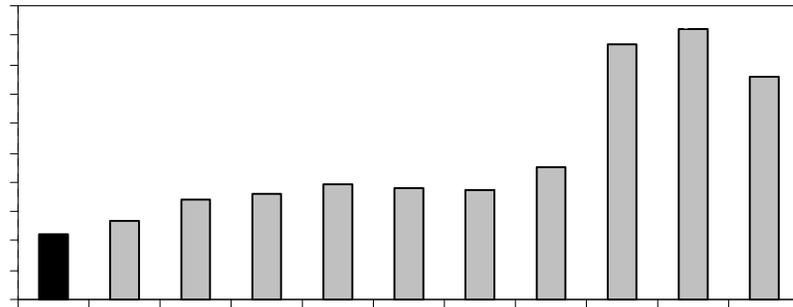
2.4.1. Low participation and high concentration in rich urban areas

2.4.1.1. *Participation in ECED services in Indonesia is very low compared with participation in other countries in the region.* Although a variety of ECED services currently exist, and enrollment in these services has increased since 2000, only a small proportion of Indonesia's 28 million children aged 0 to 6 participate in ECED services. According to *World Development Indicators 2006* (World Bank 2006b), Indonesia's gross enrollment rate in preprimary education (ages 4 to 6) was 22 percent in 2004. Indonesia's EFA plan states that only 15 percent of children aged 4 to 6 have access to early childhood education services. The MONE reports that about 27 percent of children in 2005 had access to ECED services (or about 7.7 million children ages 0 to 6). Problems with double counting and the inclusion of parent-focused services in these calculations mean that the actual participation may be as low as 8 percent. Regardless of whether the coverage is 8, 15, or 20 percent, Indonesia lags behind many developing countries in the region. In Vietnam, for example, enrollment in preprimary education is 45 percent. The global average enrollment rate for low-income countries stands at 27 percent, which is still higher than Indonesia's rate (figure 15).

⁸ Center-based interventions are costly and are not necessarily the most appropriate alternatives. The investment cost of all ECED pilot centers was about \$30,000 each. The investment/capital cost of an intervention like the Taman Posyandu, which is based on an existing facility, is half that amount. Average annual recurrent costs of the Taman Posyandu centers are \$900 compared with \$1,627 for the child centers. Yet, when compared with the costs of other international programs, \$82 per child per year is relatively inexpensive. Cuba's early child development programs, the gold standard in terms of high-quality ECED services, have average recurrent costs of \$1,200 per child per year. Colombia's ICBF program costs \$300 per child per year.

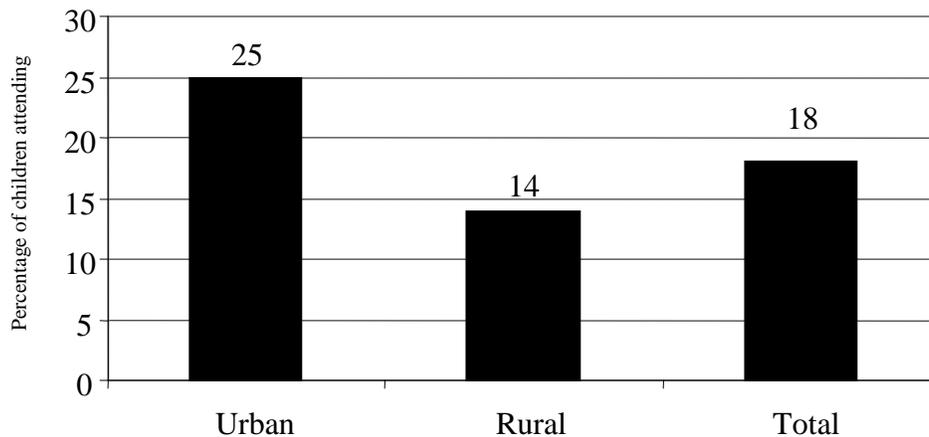
⁹ In 2005, the World Bank conducted three consecutive missions to assess the strengths and challenges faced by the subsector. The recommendations presented in this paper support those highlighted by the UNESCO team and by national experts who gathered in a seminar and workshop in 2003.

Figure 15. Gross Enrollment Ratios in Preprimary Education, 2004



2.4.1.2. *The urban-rural gap is wide.* Participation in ECED in rural areas of Indonesia is lower than in urban areas (figure 16). The gap between urban and rural enrollment is as wide as 15 percent in some provinces. This gap is wider among children aged 4 to 6 than among younger children, in part because enrollment among younger children is much lower in both rural and urban areas.

Figure 16. Percentage of Children Aged 3 to 6 Attending ECED Programs, by Region, 2004

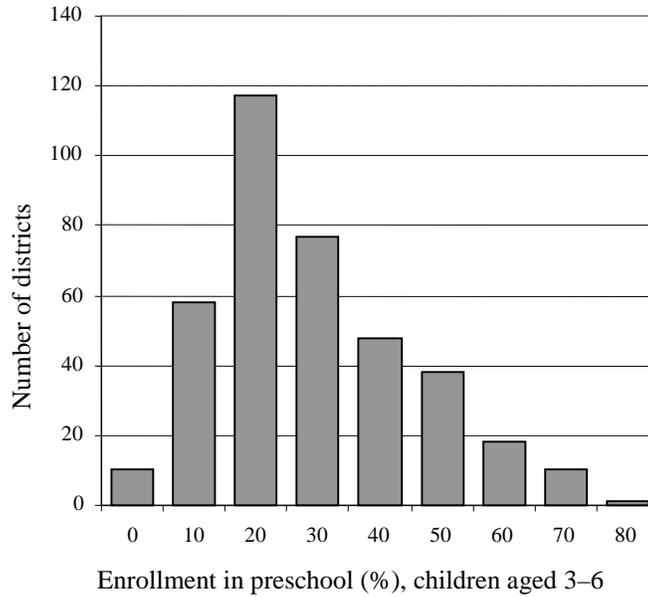


Source: World Bank calculations based on SUSENAS 2004.

2.4.1.3. *Participation varies significantly among provinces and districts.* In general, poor provinces and districts have lower levels of participation than rich ones. For example, access to ECED services in Yogyakarta, one of the wealthiest provinces in Indonesia, is very high, significantly higher in both urban and rural areas than in other provinces. At the district level, data from SUSENAS 2004 showed that some districts have enrollment rates in early childhood

education services for children 3 to 6 as high as 60 or 80 percent, whereas other districts have almost no enrollment at all (figure 17).

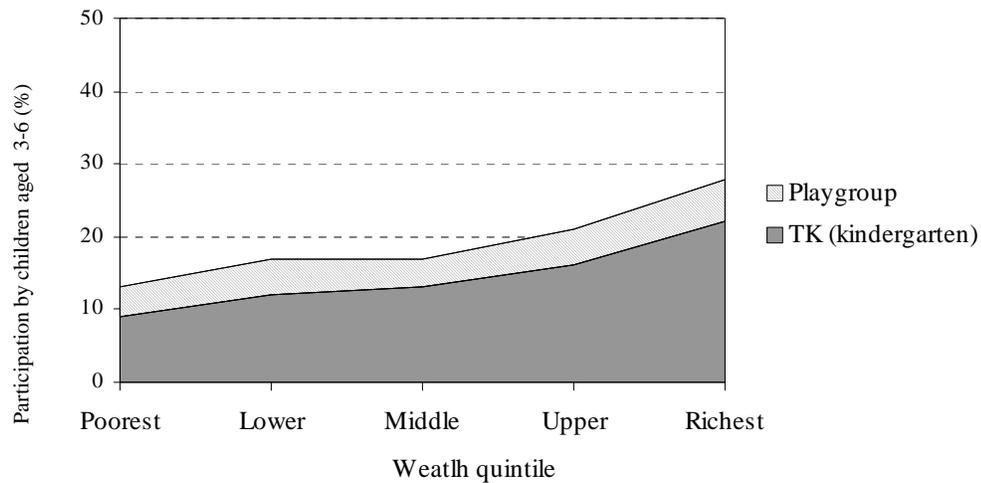
Figure 17. Participation in ECED by District



Source: SUSENAS 2004.

2.4.1.4. *Participation in ECED services is inequitable and biased toward the rich.* Children from poor families are less likely than average to be enrolled in any form of ECED. Figure 18 shows that the richest children are twice as likely as the poorest to be enrolled in an ECED program. In 2004, about 85 percent of the poorest children did not participate in early childhood education services. Even though TK (kindergarten) programs have a long history—longer than nonformal programs—their coverage is limited and skewed toward the nonpoor. Participation in TK programs is almost three times higher for the richest children than for their poorest peers. Nonformal services (primarily playgroups) have been more equitable in their outreach, reaching similar proportions of rich and poor children. Yet, most children who have access to ECED services come from better-off family backgrounds, live in urban areas, and attend kindergarten. In sum, not only is overall participation in ECED services low, but rich-poor disparities are great.

Figure 18. Participation in ECED by Type of Program and Wealth Quintile

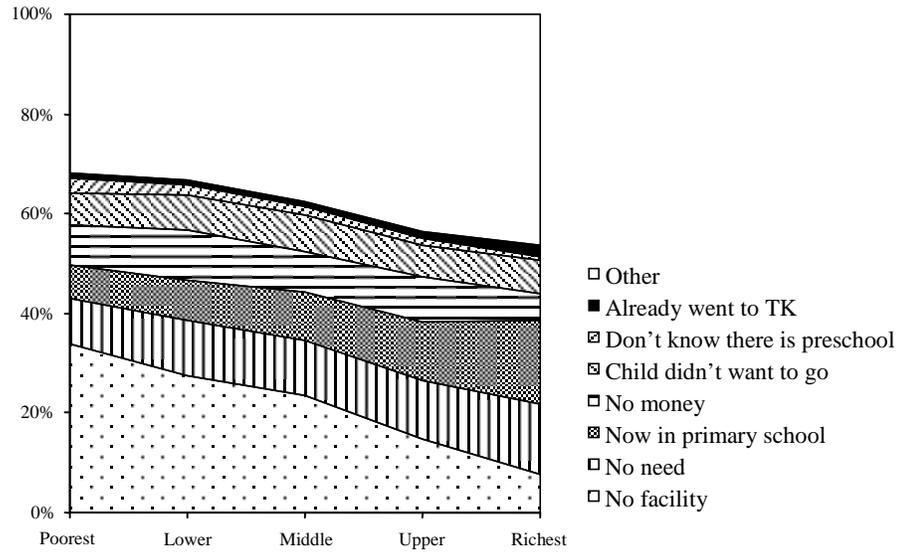


Source: World Bank calculations from SUSENAS 2004.

2.4.1.5. *Participation of young children aged 0 to 2 in care services is more equitable than participation in early education services.* Posyandu centers are present in 98 percent of urban areas and 90 percent of rural villages, and active BKB groups total about 90,000. The participation rates in Posyandu centers are higher than 50 percent for all socioeconomic groups. Posyandu services also seem to be used by children older than 3. About 3 to 4 percent of the children who attend Posyandu also participate in ECED services (playgroup, TK, or childcare), which results in some overlap of services.

2.4.1.6. *Several barriers prevent participation in ECED programs, from both the supply and demand sides.* On the supply side, many of the poorest children do not participate in ECED services because these services are simply not available in the areas where they live. Most existing services are located in the cities and in richer areas, so poorer families tend to think of them as desirable in principle but out of reach. On the demand side, the primary reason why parents do not enroll their children in ECED services is their lack of awareness about the benefits of these programs—something that is true for all socioeconomic groups. Parents across Indonesia do value primary education, as indicated by the high enrollment rates in primary grades. But many, especially poor parents in rural areas, know very little about ECED, mostly because of their lack of exposure to its principles and benefits. Two other reasons why children do not participate are the costs of doing so and the fact that some children are already enrolled in primary school. For the poorest children, it is mainly a matter of cost. As discussed in the next subsection, there are high costs involved in participating in ECED; even if the services are available, the poorest families cannot afford to use them. Rich children, on the other hand, often do not participate in ECED programs because they are already enrolled in primary school. Parents' stated reasons for nonparticipation are shown in figure 19.

Figure 19. Reasons for Nonparticipation in ECED



Source: World Bank calculations from SUSENAS 2001.

2.4.2. Low government investment

2.4.2.1. *Indonesia's total public expenditure on education as a percentage of the GDP is extremely low.* The education sector in Indonesia is under funded. In 2004 public expenditure on education was only 2.7 percent of the GDP, compared with an average of 3.5 percent spent by other lower-middle-income countries. Public education spending was 8.1 percent in Malaysia, 3.1 percent in the Philippines, and 4.6 percent in Thailand.

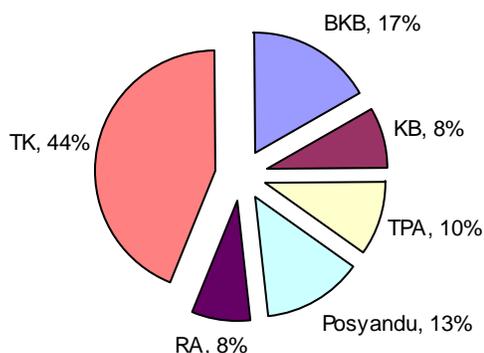
2.4.2.2. *Public spending on ECED is even lower.* The public spending allocation for ECED is below 1 percent of total education-sector public spending. While primary and secondary education accounts for about 80 percent of the education budget, expenditure on ECED is only 0.45 percent (MONE 2005). This represents about 0.05 percent of GDP. Public spending on ECED as a percentage of total education expenditure is significantly lower than in other countries with lower per capita GDP than Indonesia. For example, Bangladesh and Cambodia allocate 6.9 percent and 2.6 percent respectively of their education budgets to preprimary education (UNESCO 2003a). In countries of the Organisation for Economic Co-operation and Development (OECD), the public sector is the main source of financing for ECED services.¹⁰

2.4.2.3. *The MONE has committed itself to increasing the early childhood education budget to reach the expansion targets defined in the RENSTRA.* It is expected that the share of the education budget spent on ECED will increase to 2 percent by 2009. In the period 2005 to 2009, Rp 86 billion is projected to be spent on expanding ECED services. Approximately 30 percent of the annual budget assigned to ECED will be used to cover the costs of the directorates at the central level (to cover policy development and capacity building), and 60 percent will cover the

¹⁰ This financing consists of central government funds, largely through the ministries of national education and social welfare, and contributions from local and municipal government funds.

expansion costs (including rehabilitation and construction of facilities and the provision of subsidies in the form of block grants). It is not clear how these funds will be distributed between the DGMPSE and the PAUD. If the intention is to follow the projected distribution identified in the EFA plan, then a larger share of the overall budget for ECED services will be spent on formal TK than on nonformal programs (figure 20). If this happens, then it is likely that children from better-off families will benefit disproportionately, as this is the population that TK programs mainly serve.

Figure 20. Distribution of Projected Costs of Different ECED Programs by 2015



Sources: UNESCO 2003b, 2005.

2.4.3. Limited public financing, high private investment and provision

2.4.3.1. *Limited public financing has resulted in high private investment, which has to some extent filled the gaps created by public underinvestment.* Almost 99 percent of the existing ECED services (both formal and nonformal) are privately owned and managed. The limited number of publicly provided TK/kindergartens are mostly *model* TKs and a few regular TKs, which all together constitute about 2 percent of the total number of TK programs available and which are concentrated in urban areas. Of the 1.9 million children enrolled in TK programs, about 98 percent are enrolled in private programs (MONE 2004c). According the Potensi Desa (PODES) village survey, 98 percent of rural villages have no government-supported kindergarten/TK. Most provision of nonformal services is also financed by the private sector, mostly by nonprofit organizations including community-based organizations, religious associations, and national and international nongovernmental organizations (NGOs). International NGOs such as Christian Children’s Fund and Save the Children, among others, are among the few private organizations providing ECED services to disadvantaged children in displaced communities and in extremely vulnerable circumstances.¹¹ Most private sector investment has been directed toward better-off families; hence poor children have been left out of the system.

2.4.3.2. *Private services operate from funds generated by charging fees.* In general, private providers rely heavily on household investments in their children’s education. The operating

¹¹ Most of these NGOs are piloting new variations of ECED services in the Aceh region as part of their relief and recovery work following the 2004 tsunami.

costs of most ECED services are funded mainly by user fees or parents' contributions. Fees cover costs of the building, equipment, materials, teachers' salaries, and other operational costs. Private providers of formal services (TK) charge parents fees for registration, uniforms, association costs, and monthly fees. According to a survey conducted by the IEA-PP, about 97 percent of urban TK/RA and 70 percent of rural TK/RA charge fees (UNESCO 2004). The costs of sending a child to a private TK in Jakarta range between Rp 100,000 and Rp 500,000 per month. Registration fees amount to Rp 700,000 on average. Kindergarten programs are not the only programs that charge fees. All forms of nonformal services are also sustained through fees collected from parents, even government-subsidized services (in other words, those receiving block grants). For example, in the case of Taman Posyandu services, parents pay about Rp 500 per visit (table 5). In addition to the fees, almost all programs require some form of in-kind contribution from the parents, generally in the form of food, time, and/or labor. UNICEF estimated that the total monthly cost of sending a child to kindergarten would increase fourfold if the costs associated with accompanying a child to a kindergarten, in terms of travel and lost wages, were included (UNESCO 2003a).

Table 5. Estimated Average Private Costs for Nonformal Services

Type of program	Average private costs (Rp per child per month)
Playgroup	2,500–7,500
ECED pilot	2,000
Taman Posyandu pilot	500
NGO (Christian Children's Fund)	2,500–7,500

Sources: Estimated costs were provided by the relevant agencies: PAUD, GDKPE, BKKBN, Christian Children's Fund, and UNICEF.

2.4.4. Fragmentation and lack of coordination of ECED services

2.4.4.1. *Indonesia has a variety of ministries and government agencies responsible for early child development, hence a diversity of ECED services.* Because of the multifaceted nature of ECED services, which involve care, nutrition, health, and education, the involvement of several different sectors and actors is inevitable. A total of six agencies are responsible for the welfare of children aged 0 to 6: the Ministry of National Education, the Ministry of Religious Affairs, the Ministry of Social Welfare, the Ministry of Health, the National Family Planning Board, and the Ministry of Women's Empowerment. This has resulted in a plethora of different interventions that serve young children. On the one hand, there are early childhood education services for children aged 2 to 6, which focus on academic skills, and on the other hand, there are early childhood care services, which offer health, nutrition, and care services to parents and younger children (aged 0 to 3).

2.4.4.2. *The existence of two directorates within the MONE has contributed to overlapping functions and responsibilities and, as a result, to fragmentation in policies and programs.* The National Education System Law 20/2003 outlines three possible approaches to delivering early education services: formal, nonformal, and informal.¹² According to the law, formal services

¹² Early childhood education services as interpreted by the Ministry of National Education focus on the early learning experiences of children, using both a play-based approach (nonformal services) and more traditional methodologies (formal

such as kindergarten and Islamic kindergarten are the responsibility of the Directorate General for Management of Primary and Secondary Education (DGMPSE). Nonformal services like playgroups, childcare centers, and other services such as Taman Posyandu are the responsibility of the PAUD under the Directorate General for Non Formal Education (DGNFE). This division of responsibility between the two directorates has contributed to overlapping functions. Both directorates serve children ages 4 to 6 (although the PAUD target age group is broader, as it also includes children aged 2 to 4). Each directorate has its own administrative staff and organizes its supervisory and implementation activities separately. There is no coordination between the two directorates, which operate independently and in parallel. The result is an overlap of service management activities (including curriculum development, inspection processes, training, and policy planning) and an absence of continuity between nonformal programs for younger children aged 2 to 4 and formal TK services for children aged 4 to 6. Thus the child's transition from a "play-based" approach (which often does not put enough emphasis on teacher-led acquisition of literacy and language skills) to the TK approach (which places too much emphasis on academic skills)¹³ can have negative repercussions on the child's early education experience. In the case of those children who attend only nonformal programs, the transition to grade 1 is even more abrupt.

2.4.4.3. The PAUD had taken steps to coordinate and manage both education and care services. By establishing a multidisciplinary and interministerial national PAUD forum and consortium, the PAUD has taken the first steps toward ensuring coordination among the relevant agencies. The PAUD forum has been successful to a certain extent in involving other stakeholders and government agencies in formulating policy guidelines and recommendations. However, it has had little success in liaising with the DGMPSE or in ensuring the implementation of a comprehensive ECED policy that consolidates the ECED programs within the MONE. Neither the PAUD forum nor the consortium is financially independent; both are subsidized by the PAUD. Furthermore, the PAUD forum members do not have the political or institutional authority necessary to make any decisions about either directorate.

2.4.5. The need for an effective ECED quality assurance system

2.4.5.1. The quality of ECED programs in Indonesia varies widely from program to program. Some key features of quality are vital for ensuring that programs have the desired positive effects on children. As explained in the previous section, the activities that take place in the formal and nonformal ECED settings, although both work toward the same objective, have different emphasis and philosophies. Quality varies sharply among the array of formal and nonformal programs mostly run by private providers. The MONE does not have a system in place to provide in-service support to ECED providers and to ensure that their services are of adequate quality.

2.4.5.2. The IEA-PP study of formal ECED services pointed toward key features of quality that ensure program impact on children's readiness to learn. The IEA-PP examined the relationship

services). Informal services are delivered through programs such as the BKB parent education program and the regular Posyandu centers.

¹³ International experience shows that high-quality early childhood education and development programs use a combination of play-based and teacher-led activities to emphasize the acquisition of preliteracy skills and other school readiness skills within a developmentally appropriate curriculum

between specific characteristics of Indonesian kindergarten programs and children's language and cognitive performance at the age of 7. The evaluators looked at the quality of the program in terms of both process and structural features. The sample included kindergarten centers in urban and rural areas of Jakarta, West Java, and Central Java. The evaluators found that certain key components should be taken into account when designing ECED interventions in Indonesia. Parents' involvement in their children's development appeared to promote sustained language and cognitive skill development in children. Teachers' attitudes and the use and management of time by the teacher also affected children's outcomes. For example, rigid teacher-centered activities seemed to have a negative impact on children's acquisition of language and cognitive skills, whereas a combination of individual and group activities stimulated development of such skills (Schweinhart, Zongping, and Montie 2005). These findings confirmed previous international evidence that had highlighted, among other features, the importance of well-trained teachers and the implementation of a curriculum that promotes active child-focused learning as key quality features of an effective program.

2.4.5.3. The Indonesian government is moving forward on a number of fronts to create a quality assurance system for ECED programs and services. Although interventions to expand access to ECED can be relatively simple and cost-effective, research emphasizes that they must be of good quality if they are to yield benefits to children that can be sustained over time. Without a quality assurance system there are no mechanisms to ensure that services are indeed of good quality, particularly when most of the provision is private. A quality assurance system can be thought of as having four related dimensions that need to be developed and implemented in a coordinated manner: (a) standards against which to judge the quality of all programs serving children and young families; (b) a professional step-by-step career development and a teacher training system to prepare and train ECED professionals and practitioners; (c) standards and resources for early childhood curriculum; and (d) a coordinated system of supervision and monitoring and evaluation (Hyson 2005). Over the past five years, the Government of Indonesia has made impressive progress in creating a vision for its national education system and for integrated ECED services. In its May 2005 Elucidation of Government Regulation 19, concerning the new national standards for the education sector, the government put great emphasis on developing quality assurance at every level of government and in every educational setting. Although each directorate and government agency has acted independently in its attempt to develop components of a quality system, the government has made some concrete progress overall toward developing a quality assurance system in each of the four dimensions, as described below.

2.4.5.4. Program standards and a quality recognition system for ECED programs and services: The government is in the early stages of developing minimum standards that all education units, including those serving young children, must meet or exceed. A Board of National Standards of Education (BSNP), responsible to the MONE but functioning as an independent body, has recently been created, but it has not yet developed specific ECED standards that would identify the essential structure and process characteristics that early childhood programs should have. "Minimum service standards" have been developed against which to measure districts' success in managing the education services in both the formal and nonformal domains, but these are really service delivery targets rather than descriptions of the essential qualitative features of ECED programs. Standards or requirements have been set for some programs such as childcare centers (TPA) and the Taman Posyandu, but there are no program standards that cut across all programs. Two national accreditation bodies have been created, one for formal education and

one for nonformal education services, to ensure quality of education services at all levels. However, as far as a quality recognition system for ECED programs is concerned, no systematic progression or recognition system has been developed to create incentives and support for ECED programs to achieve progressively higher levels of quality. The DGMPSE has a recognition or award system to evaluate the quality of TK services, but it falls short of a systematic accreditation process.

2.4.5.5. A professional step-by-step career pathway and training system: There is a tremendous need in the subsector to increase the capacity of ECED leaders, teachers, cadres, supervisors, and managers. First, there has been no attempt to define the overall ECED core competencies needed by everyone who works directly with young children or with the families of young children. Minimum requirements have been established for TK teachers based on their educational qualifications (diploma status), but not on competencies or experience. The new standards for teacher qualification state that all ECED teachers, within the next 15 years, must have a four-year postsecondary degree and professional certification as a PAUD teacher. This certificate has not yet been developed. The Directorate General for Quality Improvement of Teachers and Education Personnel (DGQITEP) clearly intends to create a more coordinated system of credentials and competencies for, among others, ECED personnel. Second, there are currently few ECED teacher-training programs. Only a handful of higher education institutions offer training in formal ECED teaching, and only one offers a course in teaching the nonformal approach.¹⁴ In an effort to build the capacity of higher institutions, the PAUD has begun to offer them grants to develop their expertise in training prospective ECED teachers in the nonformal approach. The DGQITEP and the Directorate General for Higher Education (DGHE) are in the early stages of planning, together with the PAUD, to expand the higher education system's ECED capacity and to create training programs that focus broadly on early childhood education and development, with possible specializations or options in teaching the formal or nonformal approach. Unfortunately, a major problem in expanding higher education programs in ECED is the DGHE requirement for a specific number of faculty members needed to open a specialization program.¹⁵ Third, pre-service and in-service training is fragmented, and much of it is tied to a specific curriculum or project. In the absence of a recognized training system, the PAUD adapted and established the "Beyond Centers and Circle Time" training curriculum developed in the United States.¹⁶ The DGMPSE, on the other hand, provides separate in-service training to TK (kindergarten) teachers. To be eligible for such training, teachers must hold a level-2 diploma. Given that most teachers do not have that qualification, this in-service training does not reach all teachers. At this point no provision has been made for granting academic credit for ECED training that is provided outside of the higher education system.

2.4.5.6. An early childhood curriculum: One of the stated goals of the PAUD has been to develop curriculum standards.¹⁷ The PAUD Forum has worked on a competency-based curriculum,¹⁸ the

14 Thirty-eight universities and institutes offer a D2 diploma with a TK (kindergarten) emphasis

15 Graduate education in ECED is almost nonexistent. There are very few ECED specialists with a master's or PhD in the field in Indonesia.

16 The effectiveness of this training has not yet been evaluated.

17 The curriculum is simply the knowledge and skills to be taught in the ECED program and the plans for how children's learning can occur. It is not clear how specific a curriculum should be in order for teachers to be able to use it effectively. Some believe that relatively untrained ECED staff cannot be expected to implement what is called an "emergent" curriculum, that is, a curriculum based only on the individual teacher's observations of children's interests and development.

18 This consists of a detailed description of the desired knowledge, skills, and attitudes or dispositions of children each year through the age of 6. However, this document lacks some key elements of a curriculum. In particular, it lacks any reference to the

PAUD has developed “generic learning menus” (MONE 2002),¹⁹ and the MONE’s Curriculum Center has developed but not implemented a “learning results curriculum” that covers the 1–3 and 4–6 age groups. The PAUD has adopted the Beyond Centers and Circle Time curriculum as a key element in its ECED improvement strategy.²⁰ The existing curricula, however, are not very specific in recommending activities, daily plans, or other resources to help children gain essential competencies and achieve the desired developmental outcomes. Under the recent developments (including the creation of DGQITEP), several entities are currently responsible for developing curriculum standards. The newly created Board of National Standards of Education is the central authority that is supposed to issue curriculum standards for all education levels and content areas, though it is still not clear whether the BSNP’s mandate includes developing standards for the ECED curriculum. The Curriculum Center is responsible for translating the general curriculum standards that the BSNP will put out into the specific guidance that teachers will need. Furthermore, each directorate is supposed to have a manual that makes explicit how the curriculum standards in its age group or specialization can be applied in practice. In 2005, guidelines for TK and primary teachers were developed in line with the national standards. However, Indonesia still needs to develop a curriculum framework for programs that target young children aged 0 to 3.

2.4.5.7. A coordinated supervision and monitoring and evaluation system: First, there is currently little supervision of ECED facilities or units, and what there is tends to be limited to the inspection of facilities rather than on-the-job guidance and mentoring. Indonesia lacks the resources to implement staff supervision on a regular basis. Second, the fact that there are many privately operated services throughout Indonesia makes it difficult to develop an effective and thorough monitoring system at the national and district levels. The MONE data collection mechanisms to monitor participation in ECED services and progress in achieving positive outcomes need further development. There is no consistent system for keeping track of how many nonformal ECED units and other services exist or how many children are enrolled, except for the data from the national socioeconomic household survey (SUSENAS). The MONE official statistics only contain data on enrollment rates in formal kindergarten (TK/RA), and PAUD unofficially collects data from nonformal programs. Furthermore, there are no key indicators to capture effects of ECED participation at the community, district, and national levels. Various government agencies have used different screening tools to monitor progress (for example, the Kartu Kemajuan Anak or child development chart used by the BKB cadres and the Kartu Menuju Sehat or growth monitoring chart used by Posyandu cadres), as well as standardized psychometric tools to measure impact (such as the Bailey’s infant scales, the IEA-PP preprimary tools, and the school readiness tool prepared by the MONE). Because these tools are complex to administer and because their data have proved hard to process, they have not been used widely or long enough to generate sufficient information to track the effects of policies and programs on children’s outcomes.

experiences through which children can achieve these desired outcomes, which would help to connect program goals and program activities. Nor does it discuss what staff and parents can do to help children to achieve these goals, or the materials needed to support the implementation of the curriculum.

¹⁹ “Generic” means that individual programs should use these general suggestions to create specific curriculum activities.

²⁰ The curriculum is play-based and provides guidance to teachers on how to structure children’s play, based on observations of their stages and levels of play. The general approach is consistent with the government’s current emphasis on active learning for students of all ages in its National Education Standards, and with generally accepted philosophy and practice of early childhood education. Although based on sound developmental and educational principles, the curriculum and related training program are not comprehensive: they do not appear to address topics such as health, safety, or nutrition, nor do they work with the children’s families.

2.4.6. Limited district-level capacity to implement ECED programs

2.4.6.1. *The decentralization policy that went into effect in 2001 with the objective of developing local autonomy transferred responsibility for the implementation of early education services to the districts.* Today in Indonesia, districts are responsible for one-third of all government spending and half of the development budget.²¹ Most spending on social services is district-based, with districts employing three-quarters of the civil service. Since decentralization, the central government is no longer responsible for providing ECED services but now has the responsibility for developing quality assurance mechanisms and for collecting data on ECED (MONE 2005). Similarly, districts' responsibility has expanded to include the financing, implementation, and supervision of these services. However, a survey conducted by the MONE found that of 110 districts only a limited number had set aside a budget for early childhood services and had created an ECED unit. Despite decentralization, most of the budget used to support ECED services still comes from the central government in the form of block grants given directly to local communities.

2.4.6.2. *Districts now have the power to determine their priorities and development actions, but they are still unenlightened about the benefits of investing in ECED and have almost no experience implementing and supervising ECED services.* Given the many competing demands for their limited funds, and their limited capacity and expertise in ECED, districts are unlikely to choose to provide much support for ECED in the short term. In many districts, early childhood development is an unfamiliar concept, and most district officials are uninformed about the high rate of returns to such interventions. Qualitative analyses of the ECED pilot project supported by the World Bank showed that local governments need to familiarize themselves with the concept of ECED (Sadjijo 2005). Districts have very limited experience in implementing ECED programs, as they have no responsibility for the implementation of the existing block-grant programs. The MONE, through the provincial office, calls for proposals that are then submitted directly to the PAUD or DGMPSE. The central government needs to help districts build up their capacity and willingness to carry out their new roles as financers of ECED services.

2.4.6.3. *The MONE has developed minimum service standards, but it will be difficult for districts to implement them without additional financial support.* Rather than being indicators of success in the management of both formal and nonformal education services, these minimum service standards are delivery targets. The minimum standards established for early education services specify that in each regency: (a) at least 20 percent of children aged 4 to 6 should attend a TK/RA; (b) at least 90 percent of teachers should have the minimum education qualifications; (c) at least 90 percent of TK/RA should have facilities for learning and playing; (d) at least 60 percent of the TK/RA should apply school-based management; (e) at least 65 percent of children aged 0 to 4 should attend playgroup, daycare, or an equivalent program; (f) at least 50 percent of children aged 4 to 6 who do not have access to formal TK/RA should attend nonformal programs; and (g) at least 50 percent of teachers should have ECED education training. Unfortunately, these standards seem overly ambitious. For example, most TK teachers have only completed secondary education and only a few hold a level 2 diploma, so it is unrealistic, under the current system, to expect that 90 percent of these teachers will have a

²¹ The 200 million Indonesians live in about 70,000 villages. About 157 villages make up a district. Indonesia has approximately 400 districts and 31 administrative provinces.

level 2 diploma in three years. Given districts' limited budgets and competing demands, it would be difficult for all districts, and almost impossible for the poorer ones, to achieve these minimum service standards.

Chapter 3: Recommendations for the Way Forward

This section focuses on what is urgently needed in the short term within a comprehensive strategy for building an ECED system in Indonesia. The recommendations ought to be seen as the initial building blocks or foundations that are needed to build that system. They are:

- ③ Expand ECED services to the poor for equity and greater impact;
- ③ Increase public financial support for the expansion of ECED services;
- ③ Explore different mechanisms to encourage private provision of ECED services to the poor;
- ③ Improve coordination of ECED services at the central level and integration at the local level;
- ③ Develop a system to ensure the quality of ECED services; and
- ③ Build the capacity of districts to implement ECED services.

3.1. Expand ECED services to the poor

3.1.1. *Expand coverage of ECED services.* The data show that participation in ECED services in Indonesia is low. Extensive evidence, not only from around the world but also from within Indonesia, has demonstrated the significant positive effects that ECED interventions have on all children and on the economy in general. Therefore, the whole of Indonesian society would benefit from expanding coverage of and access to ECED services, and it is evident that the government needs to do more toward this end. Ideally, all children in the country ought to be able to benefit from ECED interventions. But given the large proportion of Indonesian children who are currently not covered by ECED, implementing ECED services nationwide would be a gigantic challenge. It would not be feasible, either financially or managerially, to attempt to provide universal access to ECED at this time. Hence, it is recommended that the government target specific priority groups.

3.1.2. *Target the poor for equity and greater impact.* International and national evaluations of ECED interventions show that while these programs yield large benefits to all participants, these benefits are larger for vulnerable children and their families than for children and families who are not disadvantaged. In Indonesia, participation of poor children in ECED services is very limited: about 85 percent of the poorest children do not participate. A cost-benefit analysis shows the highest economic return for ECED services when they are targeted to poor children in 50 of the most disadvantaged districts, where levels of enrollment in school are below the Indonesian average. If ECED services are targeted to the poorest children in the poorest districts, it can be expected that for every \$1 invested \$7 in benefits will accrue. By targeting the poor, the government will not only increase equitable access to opportunities early in life but will ensure the greatest economic return on public investment.

3.1.3. *Enhance targeting strategies.* Initial steps to support the expansion of ECED services to the poor require an enhancement of existing mechanisms for targeting. Currently, the limited publicly supported services are not effectively targeting the children with the greatest needs. Most government-funded services (including TK, childcare, and playgroups) are located in urban areas and serve better-off children. To improve targeting mechanisms the central government could work out, in collaboration with local governments, a set of indicators with which to identify areas of greatest need within districts. These indicators could include, for example, the availability of services, the potential demand for services based on the number of

young children, and poverty levels based on SUSENAS and PODES data. Another possibility is to adapt targeting strategies developed for other programs such as the community-driven development programs or the conditional cash transfer program so that their criteria could be used for the block-grant programs administered by DGMPSE and the PAUD.

3.1.4. *Identify effective interventions for reaching the poor.* Indonesia has several pilot experiences in the provision of ECED services, both center-based interventions directed to children and family/home visiting services directed to parents. The government could further explore which delivery modalities are cost-effective (in terms of benefits to children in relation to investment) and suited to local needs, with a view to scaling them up in poor areas. For instance, research has shown that large, costly facilities are not needed to offer good services. The evaluation results of the Pusat PAUD pilot show that a center-based design is not necessarily the most appropriate modality for reaching very young children or children living in remote and isolated areas. New, less costly strategies are needed if the objective is to scale up interventions for the poor.

3.1.5. *Take an incremental approach to expanding ECED services.* Government could initially focus on reaching the poorest children in the poorest districts and subdistricts and could eventually expand government support to all districts and all children. Support to better-off children does not necessarily need to come in the form of financial support, but may involve ensuring that services provided are of appropriate quality and that teachers and providers receive adequate training.

3.2. Increase financial support for the expansion of ECED services

3.2.1. *Increase current public funding levels for ECED to the levels spent by countries with similar income levels.* Current public investment in ECED in Indonesia is extremely low compared with countries that have similar per capita GDP. The government needs to increase public expenditure on ECED services as a percentage of GDP to at least the level spent by these counterpart countries. For example, Armenia, a middle-income country, allocates about 0.3 percent of its GDP to ECED services, while Thailand allocates 0.5 percent (UNESCO 2005). By contrast, Indonesia spends less than 0.1 percent of its GDP on ECED. The private sector is currently the source of most financing for ECED services in Indonesia. Given the evidence that early childhood interventions benefit not only children but also society as a whole, by underfunding the subsector the government is missing an important opportunity to improve social welfare across the board.

3.2.2. *Reallocate funds to ECED from within the central education sector budget.* Increased government funding to ECED is affordable. For the government to be able to increase participation of poor children in ECED services by 8 percent in poverty-targeted districts by 2009 (thus keeping investment in ECED services in step with population growth), it is estimated that about 250 new ECED services would need to be established each year up to 2015. This will require an increase of only 1.1 percent in the total recurrent allocation to the education sector. Reaching a more ambitious target of covering all children aged 0 to 6 living in poverty would require the government to establish an estimated 15,000 to 20,000 new services each year up to 2015. In this case, the government would have to increase the total recurrent allocation to the education sector to over 2.5 percent from the current 0.97 percent. Given that

annual economic growth is estimated to be 6 to 7 percent in 2007 and that government spending on education is mandated to rise to 20 percent, financial sustainability can be achieved by reallocating funds to ECED from within the central education sector budget.

3.2.3. Encourage districts to allocate a share of their budget to support ECED services. Districts now have the autonomy to decide the developmental priorities in their jurisdictions. They need to be encouraged to allocate a share of their budgets to support such interventions. Unfortunately, given the many competing demands, districts with limited revenues may be disinclined to invest in ECED. To facilitate the process, the central government should provide incentives to districts to make such investments. These incentives could be in the form of training but could also entail direct funding through the existing block grant mechanism, which could be used to match districts funds. A set of criteria could be defined to identify districts to receive block grants, including poverty rates, potential demand for ECED services, and district willingness to support ECED services, measured by either district staffing support or budget earmarked for ECED services.

3.2.4. Explore other financing sources, such as earmarking taxes for ECED services or establishing a fund with private sector contributions. An earmarked tax is one possible way to ensure funding for ECED programs. Such a tax could be used to create an ECED trust fund to support specific programs. In Colombia, for example, the government created the Colombian Institute of Family Welfare (ICBF), a consortium of regional and local governmental and nongovernmental organizations to coordinate child welfare policy. The ICBF is financed through a 5 percent earmarked payroll tax that yields substantial revenues and keeps the ICBF immune from budget cuts in times of fiscal adjustment.

3.3. Explore different mechanisms to encourage private provision of ECED services

3.3.1. Promote public-private partnerships. Given the existing limited supply of ECED services, the private sector will continue to be a predominant partner in service provision. For-profit providers can continue to provide services to the better-off who can afford the fees for participation. The government, on the other hand, could facilitate (i.e., finance) the provision of private services for disadvantaged children. Experience around the world has shown that public-private partnerships can be effective in the provision of ECED services if the appropriate financing incentives are provided to ensure that the private providers cater for children from disadvantage areas.²²

3.3.2. Explore the possibility of contracting private providers to manage public facilities. Private providers, including nonprofit organizations, community-based organizations, and religious organizations, could be contracted to manage public ECED facilities. There is currently a surplus of primary school classrooms, and these could be used to house center-based formal ECED services such as the “one-roof” kindergartens supported by DGMPSE. The government could consider contracting community organizations and or other private providers to manage these classrooms in collaboration with the school’s principal and parent-teacher association. This approach is likely to be most effective for children aged 3 to 6, who benefit the most from center-based approaches.

²² In OECD countries, there is a slight trend toward greater reliance on privately delivered but publicly financed providers (OECD 2001). See annex 5 for examples of financing mechanisms and delivery systems.

3.3.3. *Provide public funds—incentives—to encourage private providers to expand the supply of services to the poor.* The central government could consider providing incentives to private providers to initiate ECED services in remote and rural areas, using funding schemes to even out supply disparities. Different types of monetary incentives could be explored, such as seed funds to start up new services and grants to support the operating costs of existing services that reach poor children. Seed funds could be awarded directly to providers through an open and transparent competitive process. As an initial step, to support startup of new services, the MONE could enhance the existing block-grant mechanism to make it an open and transparent competitive process by disclosing information on the size of the grant funds, the criteria for selection, and so forth. Grants could be awarded based on the number of poor children enrolled in the service or on the number that potentially could be enrolled. Second, the block-grant mechanism could be used to raise the quality of the services provided. In order to receive public grant funds, private providers could be required to meet minimum quality standards and to comply with registration and licensing (see point 3.5). Finally, in order to support flexibility in the type of services to be supported, the size of the grant could be calculated using a combination of fixed costs and variable costs (that depend on the modality of service used), instead of being determined by an estimated fixed cost. In the case of grants used to support operating costs, the size of the grant could be based on the number of poor children served. Such incentives have two objectives: to encourage private providers to target those most in need, and to stimulate civil society to come up with a wide range of innovative interventions. (See annex 5 for examples of public financing schemes for private provision in New Zealand and the United States.)

3.3.4. *Explore demand-side financing.* Another funding option for the government to consider is demand-side financing, that is, giving parents the means to buy services and the choice about which type of service they will buy. Demand-side financing interventions channel public funds directly to those who receive the services—the individual or family—rather than to the suppliers of the services. Data from the Pusat PAUD pilot experience revealed that the inability of families to afford ECED prevents many children from accessing these services. Demand-side financing would allow parents to select the public or private ECED service of their choice and to have all or part of the fees for that service paid by the government. Several schemes could be tried, including: (a) stipends paid to families to offset their children’s expenses (such as books, fees, transport, and uniforms); (b) vouchers given to parents to use to pay for the ECED service of their choice; (c) community grants awarded to ECED services at local community schools if enough parents choose to send their children there; and (d) subsidies that follow poor children to whatever service the family selects but are provided directly to the service providers, specifically earmarked for increasing the participation of poor children. The underlying assumption about demand-side financing is that there are services in place from which parents can choose and that these are sufficient in number, quality, and type. Demand-side financing could work in areas where services exist but poor children are not accessing them, for example, in urban areas.

3.3.6. *Explore the possibility of incorporating ECED in a Conditional Cash Transfer program.* The government is considering whether to implement a conditional cash transfer program that will give cash to poor families to supplement their incomes, conditional on certain behavior (for example, sending children to school). The government could explore the possibility of adding a requirement that young children attend ECED services as another condition for families to

receive these cash transfers. This approach would help parents appreciate the many benefits of early childhood education for their children and for society as a whole and positively impact the demand for ECED services among the poor. However, the problem with this approach is that few rural communities in Indonesia have any ECED services in place. One possible way around this could be to make the grants conditional on children participating in Posyandu and BKB and to simultaneously allocate another part of the government budget to expand and strengthen the ECED services. This option may be particularly effective in expanding services to children aged 0 to 3, who have vital health and nutrition needs.

3.3.7. Raise awareness of ECED benefits in order to increase the demand for ECED services among the poor. If demand-driven financing options and community-driven development initiatives are considered, further efforts, in addition to those already conducted by the MONE, are needed to raise awareness in poor communities of the importance of ECED and the nonformal approach in particular. Early child development is a fairly new concept for most parents and communities. The results of the qualitative evaluation of the Pusat PAUD centers indicate that education campaigns are needed to sensitize parents to the benefits of intervening in the early years. An effective way to achieve this could be by conditioning communities to understand the importance of ECED and simultaneously empowering them to consider what services are most needed by children in their areas, involving leaders in the decision-making process. The conditioning could focus on leaders and health workers, as they have a unique opportunity to inform parents and encourage them to participate in whatever services are available. In seeking to reach parents and communities, the government needs to explore whether other communication mechanisms may be more effective than the ones they are currently using (brochures and conferences).

3.4. Improve coordination and integration of ECED services

3.4.1. Strengthen coordination between government agencies and sectors. Interagency and intersectoral coordination is a challenge in most countries, but it is particularly daunting in a country as large and complex as Indonesia where a number of government agencies are responsible for children's welfare. Coordination at the central level among the different government agencies is a challenge. For example, despite efforts by the MONE to integrate health and nutrition services with early stimulation through the pilot ECED program, the nutrition component was not implemented. Likewise, coordination among the different levels of the government structure (provincial and district) is vital to ensure strong links between services. The integration of early education, nutrition and health services, and parental education is essential to the success of ECED interventions.

3.4.2. Effectively coordinate the work of the DGMPSE and the PAUD in policy and program development. Past efforts to design and implement key ECED policies have suffered from the fact that responsibility has been fragmented. If an ECED quality assurance system is to work in Indonesia, it will be necessary to ensure a minimum level of coordination between the two directorates within the MONE. This will require high-level political commitment within the ministry, given that existing mechanisms (like the PAUD Forum and Consortium) have not been effective in making this happen.²³ Also, stronger coordination within each directorate is

²³ The DGMPSE does not participate in the PAUD Forum and Consortium meetings.

necessary to ensure an integrated approach to the development of policies and programs. There is no point, for example, in expanding access to services for children aged 2 to 4 if there are no services available when these children turn 4 years old. Both directorates need to align their curricula and work together to ensure the smooth transition of children from nonformal to formal services and from early education to primary school.

3.4.3. *Set up an interagency body to coordinate among relevant ministries and agencies at the national level to ensure that children aged 0 to 6 receive the whole array of services that they need to thrive.* The PAUD Forum has achieved some limited success in this respect as a place to initiate dialogue among sectors and exchange ideas and expertise. However, it is far from becoming an interagency coordination board, primarily because it is financed through the education sector and specifically through the PAUD budget. It is possible that the PAUD Forum could be transformed into an independent interagency body with the authority to dictate guidelines to develop and implement a national policy and plan for children's development. Such a body should include, at a minimum, the Ministry of Education, the Ministry of Health, the Ministry of Home Affairs, and the National Family Planning Board, and should involve ECED leaders and researchers as well the nongovernmental sector.

3.4.4. *Reflect coordination across ministries at the local level.* The government could encourage the creation of ECED forums at the district level with representatives from the different ministries, private ECED institutions, and local communities. These ECED forums could work to consolidate the programs of all of the relevant government agencies and identify synergies and overlaps. The forums could also be a platform for the exchange of information between key government and nongovernmental providers and the communities.

3.4.5. *Support integrated ECED services at the community level through community-based ECED programs.* Coordination can be achieved at the community level by building on what already exists, that is, by starting with existing facilities and services such as Posyandu and BKB and adding the “missing piece”— the early education component. This can bring all the different components of successful ECED interventions together at community level. Based on an assessment of needs and of the status of existing services at the village level, the government could help communities implement ECED services for the very young. A community-based ECED program also gives communities the power to make informed decisions that are suited to their needs. However, in order to successfully implement community-based ECED programs, the MONE need to ensure that local elites do not monopolize the decisions. To prevent this, intensive training and education for communities on ECED is necessary.

3.4.5. *Use the structures of interventions such as the community-driven development programs as a platform for expanding integrated ECED services.* Indonesia has had successful experiences with community-driven development (CDD) programs such as the Kecamatan Development Project, the Urban Poverty Project, and Water and Sanitation for Low-Income Communities. These CDD programs are based on increased participation and response to village demands. This type of intervention can be a good way to involve communities in the provision of integrated ECED services. The CDD approach will give villages (and parents) interested in providing ECED services to their children the funding and power to decide based on a menu of quality interventions what intervention best suits their needs. The government can provide facilitators or supervisors to help communities choose from a menu of options and

decide what mechanisms and structures to set up in order to provide holistic ECED services. This approach facilitates less restrictive program design and innovations. However, it requires significant capacity building at the community level in terms of awareness about the benefits of ECED and about the possible interventions that could be supported. The government could explore which of the existing CDDs could serve as a platform for supporting community-based ECED services.

3.5. Develop a system to ensure the quality of ECED services

3.5.1. Work toward developing and implementing a quality assurance system for ECED. To ensure that services are of good quality, a national ECED quality assurance system could be built. Such a system should not be developed in isolation, but should be integrated with other actions being taken within the education sector. For example, as part of the government's midterm strategic goals, the education sector is currently developing standards and an accreditation body. These initiatives should be extended to cover early education services as well as other early childhood development services such as health, nutrition, and parental education. The government can take advantage of the new initiatives to take steps toward developing and implementing the different elements of a quality assurance system in a coordinated manner.

3.5.2. Develop program standards that apply to all service types, against which their quality can be assessed. The first step could be to develop the generic minimum standards for all ECED programs that serve children aged 0 to 6 (these generic standards could be divided into one set for children aged 0 to 3 and another set for those aged 4 to 6). The standards could specify minimum acceptable operating criteria including basic health and safety, hours of operation, necessary materials and equipment, and specific program outcomes (a key feature of quality). The standards should apply to all services targeting children and families and should be realistic and achievable. The Board of National Standards of Education could lead this effort, convening a team to analyze how the existing education standards could be adapted to cover ECED programs. Alternatively, instead of a government agency taking the lead, the PAUD Forum could develop voluntary standards and could eventually become the professional association responsible for quality assurance. Also, given the government's desire to identify demonstration or model programs, program standards should also be developed for these model programs. These should represent higher-level program standards; if they prove to be appropriate and effective, they could be generalized to all programs interested in pursuing higher levels of quality.

3.5.3. Focus on registration and licensing of ECED programs rather than starting with the much bigger task of accreditation. Indonesia's ECED system is still in the early stages of development. Therefore it is recommended that instead of trying to establish an accreditation system for ECED programs, which is the highest level of quality assurance, the government could begin with registering and licensing. This could apply to all programs serving children aged 0 to 6, with adaptations for specific age ranges within that age group. Licensing implies compliance with minimum standards; there are many international examples of licensing systems that can serve as examples. Over time, this system could be extended to include a range of different categories, from registration to licensing up to accreditation at the national level. The system should be developed in close collaboration with the relevant directorates and

stakeholders. In the long run, the PAUD Forum could become not only the quality assurance body for ECED programs but also the accreditation body.

3.5.4. *Develop a professional development system.* Having a professional development system in place will make it possible for dedicated and competent individuals to receive training in all ECED skills and to progressively assume positions of greater responsibility with larger compensation. This in turn will contribute to create a qualified national ECED workforce. Steps could be taken to expand the capacity of the higher education system to create large numbers of ECED graduates. For this to happen, specific standards are needed for ECED programs at the different graduate levels. With support from national experts, the government could develop flexible standards that will allow educational institutions to set up programs of specialization in ECED that address both the formal and nonformal approach. At the moment, the major impediment to this is the requirement that a university have a minimum number of faculty specialized in ECED to open a new program. Clearly, a long-term goal is to expand the number of faculty with doctorates and master's degrees in ECED, but in the short run perhaps graduates from closely related fields could be counted as ECED staff to meet the numerical staff requirement. Also, the central government could support the DGQITEP in its efforts to broaden the focus of ECED university programs to prepare graduates in both the formal and nonformal approach and to produce more specialists in working with families and children under the age of 4. This broader focus would also create a workforce that can easily move from one service delivery setting to another.

3.5.5. *Define the competencies of ECED personnel in terms of levels of ability and steps to be followed.* Together, the DGQITEP, the BSNP, and the two directorates within the MONE could develop a unified set of ECED teacher competencies with professional levels or steps. These competencies should be based not only on educational qualifications but also on the core skills, knowledge, and attitudes that are expected from ECED personnel at each level. They should specify the kind of formal education (college or university) and equivalent education (in years of experience and credentialing) required. This will establish a career ladder that makes it possible for those in the ECED field, including volunteer leaders, to begin at a basic level and then move up the ladder if they wish to take on increased levels of responsibility. The directorates should also further define the ECED teacher certification process with respect to the expectations that must be met for a teacher to be certified, where this certification would apply, and the different levels of teacher certification.

3.5.6. *Organize existing training programs into a systematic professional career path.* To improve the training conducted outside of the higher education system (that is, pre-service training specific to a particular project or approach), the directorates need to take stock of what training already exists and of how it teaches essential ECED personnel competencies to trainees. This assessment will reveal any training gaps and will make it easier to decide what kinds of training should lead to the awarding of credentials. The PAUD, together with DGMPSE, the DGQITEP, and the Board of National Standards of Education, could look at creating equivalences between community-based training and the formal higher education system.

3.5.7. *Bring those working on the curriculum together under the supervision of the Curriculum Center.* Greater coordination between the work of the DGMPSE in the formal sector and that of

the PAUD will be necessary to create consensus on a high-quality early childhood education curriculum serving children 0 to 6, with different specifics for different age groups within that range and perhaps for different settings. This would create consistency and ensure that children in all service delivery systems have the same opportunity to learn. Another important step would be to define the kinds of activities and experiences that need to be provided to all children 0 to 6 to help them to achieve certain competencies (in other words, defining what teachers can do to support children's development and learning). Finally, before adopting the Beyond Centers and Circle Time (BCCT) curriculum nationwide, its effectiveness should be evaluated to find out if it needs to be adapted in any way. A high quality ECED curriculum should offer early cognitive (especially language), psychosocial, and physical stimulation.

3.5.8. Develop effective supervision systems and upgrade technological and record-keeping capacity at the district level. The districts need to know about levels of access to and the availability, use, and effectiveness of all of the ECED services within their jurisdictions if they are to fulfill their oversight function. Hence, ECED supervisors should be recruited and trained to conduct monitoring and supervision at the district level. These supervisors should start by making an inventory of existing ECED outlets in a village, listing all children aged 0 to 6 to determine the coverage of services, and recording a limited range of health and nutrition indicators. The districts can design this data collection process in collaboration with the statistics division at the MONE.

3.5.9. Monitor districts' progress in promoting school readiness using a population-based instrument that assesses the developmental levels of children in grade 1. There are several advantages of using a population-based instrument to monitor district progress in reducing poor outcomes and promoting school readiness. For example, the information can be combined with other community-level data to build a system to monitor not only outcomes in children but also the inputs and changes in programs at the community level that might affect these outcomes. This will enable districts to monitor their own progress in improving service availability and quality and to identify villages or population subgroups that lack access to these services. The data would also help local governments in their planning and in ensuring that the ECED interventions are producing the desired outcomes in children. A comprehensive measure of child development, one that considers not only the child's preschool academic skills but also other areas of his or her development, should be used to measure school readiness. One such measure is the Early Development Instrument, which has been used in several countries and is an easy-to-understand and psychometrically sound instrument. The instrument has been effective in predicting later outcomes such as school performance, physical health and well-being, social competence, approaches to learning, emotional maturity, language development, cognitive development, communication skills, and general knowledge. It can be used to monitor the percentage of children who are vulnerable with regard to school readiness.

3.6. Build the capacity of districts to implement ECED services

3.6.1. Support the districts in their new role as implementers of ECED services. Under the decentralized government structure, district governments are responsible for implementing, financing, and supervising ECED services. The central government should assist districts to carry out this new role in three ways. First, the central government can educate district officials on the importance of early childhood interventions and the high social and economic returns

yielded by these interventions in the medium and long term. Second, it can provide districts with appropriate incentives (financial and nonfinancial) to encourage them to support and expand ECED services. Third, it can build district capacity to implement and supervise ECED services.

3.6.2. Establish community-based programs using block grants, and then allow districts to take over. The central government has experience in supporting ECED services through the existing block-grant mechanism that channels funds directly to private providers. However, under the present model, the district offices are involved in the process only as a vehicle to publicize grants through the education office; they have no say in the selection of grantees or in supervision of grantee operations. Hence, districts have no expertise in the administration and supervision of ECED services. The central government could help districts build their capacity by funding community-based programs that take advantage of the institutional arrangements already in place and the community-driven development platforms, and allowing districts to take over the administrative and supervisory work, as well as the financing to ensure sustainability. In the initial stages the MONE should coordinate with the districts to set up a menu of ECED services that these block grants could finance and work with the districts to publicize the program, call for proposals, and select, monitor, and supervise grantees. Under the proposed model, districts should take over the recurrent costs of subgrantees and be responsible for overseeing the implementation, while central government will undertake the broader quality assurance role. The central government would provide technical assistance to the districts to set up a system. Ideally, this approach will enable district offices to develop the capacity needed to finance and supervise ECED services and to respond to the need to decentralize central government responsibility in provision while ensuring better accountability.

3.6.3. Require district offices to establish ECED units as a condition for receiving central government block grants. A few districts have already set aside a budget for ECED and have created an ECED unit responsible for overseeing the ECED services in the district. In order to encourage more districts to develop the capacity to support the expansion of ECED, the central government could set as condition that those districts interested in participating in the block grant program should establish an ECED unit. These units should have only the minimum staff necessary in order for the district to oversee the ECED services and programs, register and license services, and monitor performance. The ECED unit staff should work closely with the education, health, and nutrition staff in the district office. An ECED unit at the district level office with an earmarked budget will ensure that ECED is part of the districts' development plans and programs.

Annexes

Annex 1. Private versus Public Provision of Kindergarten and TK

Province	2001/2002			2002/2003			2003/2004		
	Public	Private	Total	Public	Private	Total	Public	Private	Total
DKI Jakarta	9	1,565	1,574	9	1,565	1,574	9	1,626	1,635
Jawa Barat	18	3,440	3,458	20	3,476	3,496	23	3,583	3,606
Banten	2	828	830	3	916	919	4	954	958
Jawa Tengah	25	10,785	10,810	27	11,035	11,062	33	11,176	11,209
DI Yogyakarta	7	1834	1841	8	1841	1849	8	1893	1901
Jawa Timur	24	12,127	12,151	24	12,780	12,804	29	12,823	12,852
Naggroe Aceh Darussalam	7	426	433	8	497	505	9	560	569
Sumatera Utara	12	728	740	13	736	749	13	769	782
Sumatera Barat	10	1,165	1,175	10	1,240	1,250	11	1,295	1,306
Riau	8	828	836	9	916	925	11	935	946
Jambi	7	347	354	7	467	474	7	475	482
Sumatera Selatan	9	521	530	9	554	563	13	582	595
Bangka Belitung	3	112	115	3	114	117	5	122	127
Bengkulu	5	224	229	5	253	258	5	255	260
Lampung	7	1,098	1,105	8	1,300	1,308	8	1,353	1,361
Lkalimantan Barat	7	343	350	8	346	354	8	363	371
Kalimantan Tengah	7	449	456	7	471	478	7	486	493
Kalimantan Selatan	9	1,026	1,035	10	1,109	1,119	10	1,105	1,115
Kalimantan Timur	8	409	417	8	464	472	9	490	499
Sulawesi Utara	5	930	935	5	938	943	6	931	937
Gorontalo	2	299	301	2	302	304	2	315	317
Sulawesi Tengah	5	699	704	6	702	708	7	695	702
Sulawesi Selatan	12	1,262	1,274	13	1,546	1,559	18	1,592	1,610
Sulawesi Tenggara	6	378	384	7	380	387	8	396	404
Maluku	8	132	140	8	195	203	8	201	209
Maluku Utara	2	88	90	2	97	99	3	94	97
Bali	4	748	752	6	792	798	6	836	842
Nusa Tenggara Barat	8	631	639	10	711	721	11	747	758
Nusa Tenggara Timur	6	603	609	7	671	678	8	662	670
Total number of TK	247	44,337	44,584	268	46,728	46,996	305	47,632	47,937
Total number of TK students	20,242	1,731,067	1,751,309	22,788	1,823,195	1,845,983	25,342	1,960,407	1,985,749

Source: MONE 2004c.

Table A1.1. Trends in Private versus Public Provision of Kindergarten/TK, 2001–2004

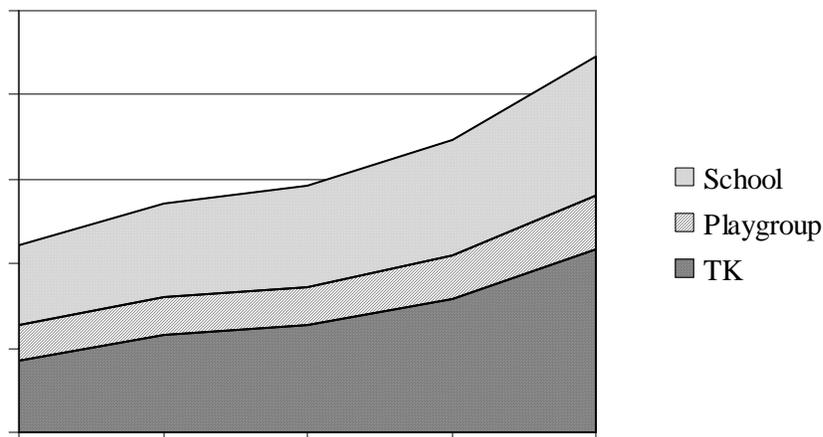
Annex 2. Participation in ECED Services

Table A2.1. Participation of Children Aged 3 to 6 in ECED, by Wealth Quintile and Type of Service, 2004

Type of service	Poorest	Lower	Middle	Upper	Richest	Total
	Number of children participating					
TK	366,181	433,122	439,312	506,915	578,383	2,323,913
Playgroup	180,587	173,818	155,193	169,665	171,536	850,799
Daycare	4,773	3,336	2,732	4,740	7,064	22,645
School	407,838	409,409	417,866	435,350	438,359	2,108,822
None	3,328,815	2,740,961	2,441,043	2,101,105	1,468,745	12,080,669
Total	4,288,194	3,760,646	3,456,146	3,217,775	2,664,087	17,386,848
Participation as percentage of total children aged 3-6						
TK	9	12	13	16	22	13
Playgroup	4	5	4	5	6	5
Daycare	0	0	0	0	0	0
School	10	11	12	14	16	12
Any ECED	22	27	29	35	45	31
None	78	73	71	65	55	69

Source: SUSENAS 2004.

Figure A2.1. Participation in ECED and School by Wealth Quintile, 2004



Source: SUSENAS 2004.

Table A2.2. Trends in ECED Enrollment, 2000–2004, by Type of Service

Type of service	2000	2001	2002	2003	2004
Number of children enrolled					
TK	2,370,083	2,079,113	2,354,745	2,536,777	2,274,070
Playgroup	176,904	1,185,915	688,495	731,179	815,480
Daycare	0	321,652	56,255	217,552	21,647
School	1,833,928	497,131	1,826,329	723,558	2,009,165
None	11,071,060	12,086,318	11,162,508	12,001,503	11,440,164
ECED	2,546,987	3,586,680	3,099,495	3,485,508	3,111,197
ECED + school	4,380,915	4,083,811	4,925,824	4,209,066	5,120,362
Total	15,451,975	16,170,129	16,088,332	16,210,569	16,560,526
Enrollment as percentage of total children aged 3–6 years					
TK	15	13	15	16	14
Playgroup	1	7	4	5	5
Daycare	0	2	0	1	0
School	12	3	11	4	12
None	72	75	69	74	69
ECED	16	22	19	22	19
ECED + school	28	25	31	26	31
Total					

Sources: SUSENAS 2001, 2002, 2003, 2004.

Note: Figures exclude the provinces of Aceh, Maluku, and Papua.

Figure A2.2. Trends in ECED Enrollment, 2001–2004, by Type of Service

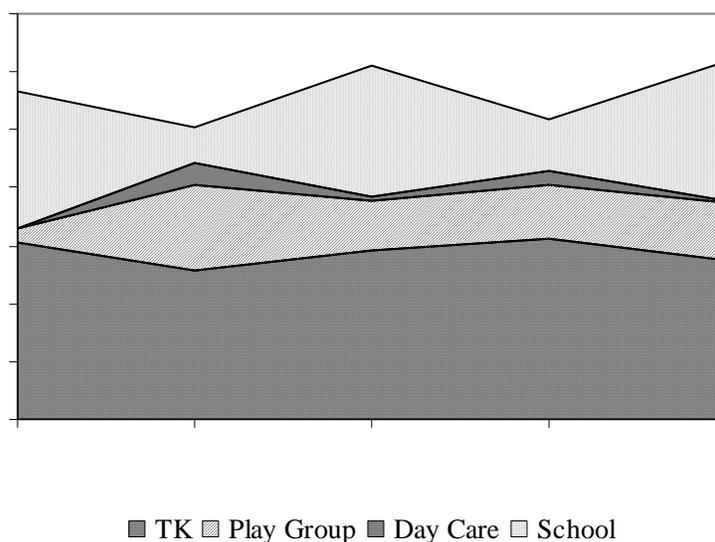


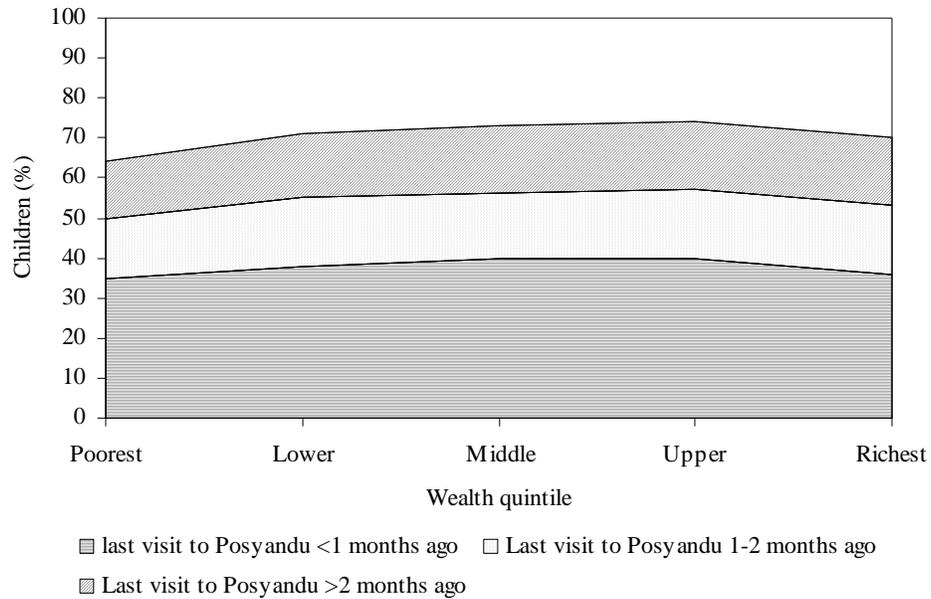
Table A2.3. Enrollment in ECED and School by Wealth Ranking

				Preschool for children 3–6 years		School for children 7–12 years		
Area	Wealth ranking		Population aged 3–6	Population aged 7–12	ECED+school (%)	ECED only (%)	Enrollment (%)	Dropout (%)
All areas	Poorest	10	2,233,012	3,552,255	21	12	93	2.7
		9	2,055,182	3,272,751	24	14	95	1.9
		8	1,898,324	3,095,796	26	15	97	1.5
		7	1,862,322	2,966,576	28	17	97	1.3
		6	1,774,956	2,802,097	29	17	97	1.2
		5	1,680,963	2,703,143	30	18	98	0.9
		4	1,646,266	2,518,236	34	21	98	0.9
		3	1,571,736	2,390,278	36	22	98	0.7
		2	1,469,673	2,202,267	41	25	99	0.5
		Richest	1	1,194,414	1,758,818	50	33	99
	Total		17,386,848	27,262,217	31	18	97	1.3
Urban	Poorest	10	296,843	527,475	30	19	93	3.5
		9	409,631	652,759	28	17	96	2.0
		8	458,867	774,857	32	20	96	1.9
		7	540,790	873,608	34	23	97	1.5
		6	607,384	966,261	34	22	97	1.3
		5	706,732	1,148,652	37	23	97	1.2
		4	851,999	1,306,814	38	25	98	0.8
		3	1,010,452	1,495,727	40	24	99	0.5
		2	1,113,897	1,648,258	44	26	99	0.4
		Richest	1	1,011,514	1,484,960	51	34	99
	Total		7,008,109	10,879,371	39	25	98	1.1
Rural	Poorest	10	1,936,169	3,024,780	20	11	93	2.6
		9	1,645,551	2,619,992	23	13	95	1.9
		8	1,439,457	2,320,939	24	14	97	1.4
		7	1,321,532	2,092,968	26	15	97	1.2
		6	1,167,572	1,835,836	26	14	97	1.2
		5	974,231	1,554,491	25	14	98	0.8
		4	794,267	1,211,422	29	16	98	0.9
		3	561,284	894,551	29	17	98	0.9
		2	355,776	554,009	32	20	98	0.8
		Richest	1	182,900	273,858	43	28	99
	Total		10,378,739	16,382,846	25	14	96	1.5

Source: SUSENAS 2004.

Annex 3. Participation in Care Services

Figure A3.1. Frequency of Participation in Posyandu by Wealth Quintile, 2001



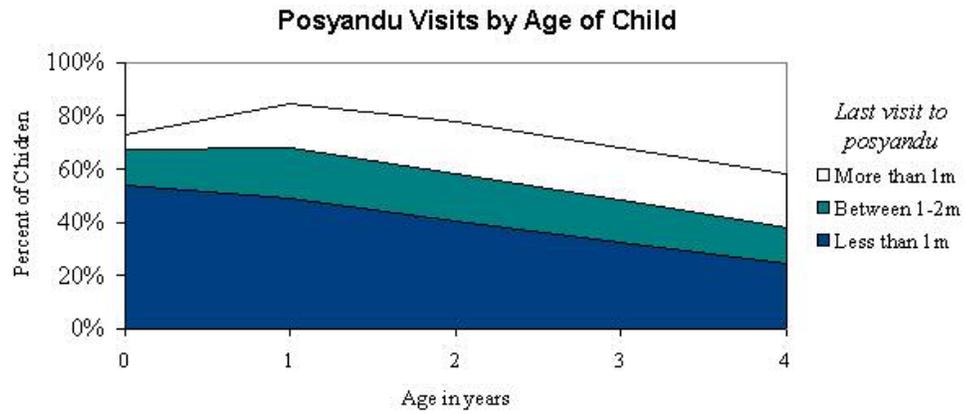
Source: World Bank calculations from SUSENAS 2001.

Table A3.1. Overlap of Posyandu Use and ECED for Children Aged 3–4

Last visit to Posyandu	Attendance at preschool (%)				
	TK	Playgroup	Daycare	No ECED	Total
Less than 1 month	1.6	2.1	0.5	24	28
1 to 2 months	0.8	1.1	0.3	13	15
More than 1 month	1.0	1.3	0.4	17	20
No Posyandu	2.3	2.4	0.7	31	37
Total	5.7	6.8	1.9	86	100

Source: SUSENAS 2004.

Figure A3.2. Participation in Posyandu by Child's Age and Frequency of Visits



Source: World Bank calculations from SUSENAS 2001.

Annex 4. Cost-Benefit Analysis of ECED in Indonesia

This cost-benefit analysis uses the concept developed by Van der Gaag and Tan (1998) to calculate the ratio of added net present value of an ECED project in relation to its total costs.

The Indonesian Education System

The formal education system in Indonesia consists of six years of primary education, three years of junior secondary, three years of senior secondary, and four years of higher education. The nine years of primary and junior secondary education are compulsory basic education, which is provided free in principle in accordance with the 1994 free compulsory education policy. Both junior and senior secondary schools have two tracks, general and vocational. Parallel with the secular education system there exists a system of religious schools. The tertiary level consists of four years of university education or one to four years of non university education.

Table A4.1. National Education System Indicators

Level of education	Net enrollment ratio (%)	Dropout rate (%)	Repetition rate (%)
Primary	94.57	2.96	3.82
Junior secondary	60.19	2.08	0.49
Senior secondary	39.63	2.70	0.28
Higher	11.70	7.81	0.0

Source: MONE 2003a.

Schooling yields significant returns to the Indonesian labor market. Table A4.2 summarizes estimates of returns to different education levels based on data from the 2003 National Socioeconomic Survey (SUSENAS). Primary education has the highest returns, of nearly 30 percent.

Table A4.2. Returns to Education

Level of education	Return (%)
Primary	29.8
Junior secondary	11.2
Senior secondary	12.6
Higher	13.8

Source: SUSENAS 2003.

The total costs of schooling include not only the direct costs paid by parents and the government (table A4.3) but also opportunity costs in the form of forgone labor income (table A4.4).

Table A4.3. Direct Cost of Schooling

Level of education	Household cost (per student per year, Rp)	Public cost (per student, 2000/01, Rp)	Total cost (per student per year, Rp)	Household share of total cost (%)	Public share of total cost (%)
Primary (starting at age 7)	159,158	1,864,000	2,023,158	7.9	92.1
Junior secondary	396,164	2,722,000	3,118,164	12.7	87.3
Senior secondary	697,596	3,612,000	4,309,596	16.2	83.8
Higher	179,4265	4,644,500	6,438,765	27.9	72.1

Sources: SUSENAS 2003; Government of Indonesia budget (2000/01); World Bank estimates.

Table A4.4. Opportunity Cost of Schooling

Level of education	Opportunity cost of education (per year, Rp)
Primary	1,083,823
Junior secondary	1,652,426
Senior secondary	2,411,490
Higher	3,870,930

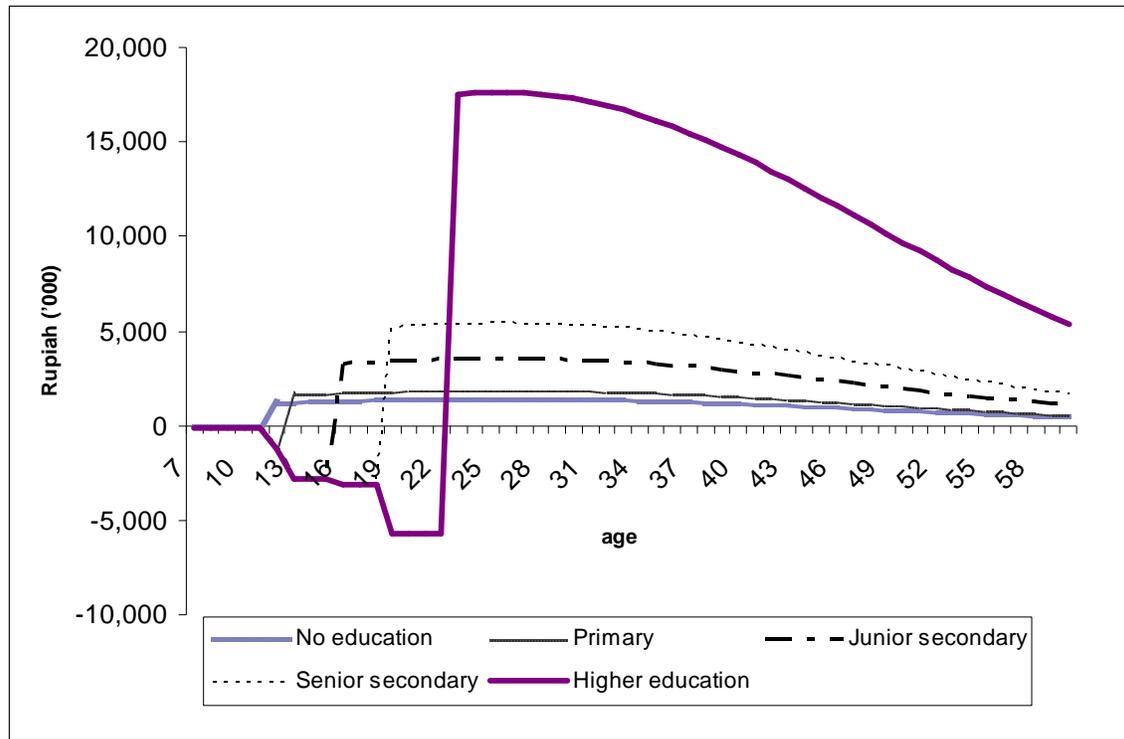
Sources: SUSENAS 2003; World Bank estimates.

Estimating the Benefits of ECED

Targeted ECED programs can yield benefits in the short term, the medium term, and the long term. Direct short-term benefits include improved health and nutrition, the prevention of abuse and neglect, and benefits to other family members including parents and siblings. Medium-term benefits include a reduced need for special education and reductions in grade repetition and dropout rates. Long-term benefits include higher levels of educational attainment and increases in wages as well as reductions in crime.

The most significant and measurable benefits are the education benefits in the medium term and the increased labor earnings in the long term. These benefits are the focus of this analysis. Figure A4.1 presents Indonesia's age-earnings profile by education level. Although higher levels of educational attainment will require longer and higher investment in the short term, the long-term total returns to the labor market largely surpass the initial investment.

Figure A4.1. Age-Earning Profile by Education Level



Source: SUSENAS 2003.

For the cost-benefit analysis, the average district performance on educational attainment was used as a target at each level for estimating the total benefits of expanding ECED services to poor districts. Fifty districts that fit into the most disadvantaged category according to National Development Planning Agency (BAPPENAS) statistics were selected. Fifty percent of the children from the targeted districts were from the poorest wealth quintile (group 1), 30 percent were from the lower quintile (group 2), and 20 percent were from the middle quintile (group 3). Benefits were estimated for a total of 738,000 children. Table A4.5 summarizes the baseline and targeted education attainment for each group of children.

Table A4.5. Distribution of Educational Attainment by Wealth Quintile: Baseline and Target

Group	< Primary (%)	Primary (%)	Junior secondary (%)	Senior secondary (%)	Higher education (%)
Group 1: 369,000 children from poorest quintile (50%)	13	46	25	16	1
Group 2: 221,400 children from lower quintile (30%)	9	41	27	23	1
Group 3: 147,600 children from middle quintile (20%)	7	34	27	30	2
Target	6	29	23	36	5

Source: SUSENAS 2004.

Using a 5 percent annual discount rate, table A4.6 summarizes the increases in net present values (NPV) for children in the three groups for different levels of educational attainment. The total

increase in NPV amounts to Rp 3,793 billion for all 738,000 children during their adult productive years, up to the age of 60.

Table A4.6. Summary of Changes in Net Present Value (in million rupiah)

	No education	Primary education	Junior secondary education	Senior secondary education	Higher education	Total
Group 1: 369,000 children from poorest quintile						
NPV before	855,440	3,645,919	2,731,040	2,065,071	245,620	9,543,090
NPV after	423,583	2,315,512	2,582,014	4,586,231	1,824,606	11,731,947
Increase	(431,857)	(1,330,406)	(149,027)	2,521,160	1,578,986	2,188,856
Group 2: 221,400 children from lower quintile						
NPV before	353,316	1,957,464	1,776,446	1,710,335	231,585	6,029,146
NPV after	254,150	1,389,307	1,549,208	2,751,739	1,094,764	7,039,168
Increase	(99,167)	(568,157)	(227,238)	1,041,404	863,179	1,010,022
Group 3: 147,600 children from middle quintile						
NPV before	279,948	1,635,894	1,756,572	2,288,048	484,222	6,444,685
NPV after	254,150	1,389,307	1,549,208	2,751,739	1,094,764	7,039,168
Increase	(25,798)	(246,586)	(207,364)	463,691	610,541	594,483

Table A4.7 presents benefit-cost ratios for participation in ECED for the three groups of children. The most disadvantaged children benefit the most and have the highest benefit-cost ratio. The average benefit-cost ratio is 6.01 for all the children.

Table A4.7. Summary of Benefit-Cost Ratios for ECED Interventions

Group	Total NPV increase (million Rp)	Total cost increase (million Rp)	Benefit-cost ratio
Group 1: 369,000 children from poorest quintile	2,188,856	315,700	6.93
Group 2: 221,400 children from lower quintile	1,010,022	189,420	5.33
Group 3: 147,600 children from middle quintile	594,483	126,280	4.71
Average	3,793,362	631,400	6.01

We also tested the sensitivity of the benefit-cost ratio to change in the discount rate (table A4.8). Although the benefit-cost ratio is sensitive to the assumption of discount rate, even a 9 percent discount rate would make the project break even.

Table A4.8. Sensitivity to Discount Rate

Group	Benefit-cost ratio		
	R=0.05	R=0.07	R=0.09
Group 1: 369,000 children from poorest quintile	6.93	3.12	1.06
Group 2: 221,400 children from lower quintile	5.33	2.45	0.93
Group 3: 147,600 children from middle quintile	4.71	2.25	0.90
Average	6.01	2.75	1.00

Cost-Effectiveness Analysis

The cost-benefit analysis considers whether all of the benefits of an ECED program are greater than the benefits of other programs that aim to improve child outcomes. One strong argument in favor of investment in early childhood development programs is that equalizing initial endowments in wealth, ability, or opportunities is much more cost-effective than taking remedial measures to compensate for differences later in life.

In this analysis, we illustrate the likely cost-effectiveness of the ECED program compared with alternative public investments aimed at helping the most disadvantaged children complete primary education. We assume that a child going through a high-quality ECED program would develop cognitive and social skills and readiness for formal primary education and would not need to receive any additional public services during the primary education cycle. We also assume that if the child does not go through an ECED program, he or she would need special attention and assistance to complete the primary education cycle, which would require additional public resources. The unit cost of primary education is estimated at about \$230 per year in Indonesia (Abbas 2004). In the United States, the unit cost ratio of special primary education to regular primary education is 1.9 to 1 on average (Chambers et al. 2002). Currently, special primary education in Indonesia has an even higher unit cost. The pupil-teacher ratio in special education is 5 to 1, and most teachers have a two-year higher education qualification and therefore higher salaries than teachers in ordinary schools. Table A4.9 shows that, given the high

cost of providing special primary education, investing public resources in ECED programs seems to be a more cost-effective way of helping disadvantaged children to complete primary education.

Table A4.9. Cost-Effectiveness of ECED Programs

	ECED + regular primary education: Indonesia	No ECED + special primary education: Break-even point	No ECED + special primary education: United States	No ECED + special primary education: Indonesia
Unit cost ratio		1.1	1.9	4.0
Ages 0–6 (7 years)	\$12	\$0	\$0	\$0
Ages 7–12 (6 years)	\$230	\$244	\$437	\$920
Total	\$1,466	\$1,466	\$2,622	\$5,520
Multiple of ECED cost	1.00	1.00	1.79	3.77

Source: World Bank calculations.

Note: All costs are per year. Numbers may not sum to total due to rounding.

Annex 5. International Examples of the Financing and Provision of ECED Services

The choice of a financing and provision mechanism for ECED services varies across countries. Most OECD countries favor public financing and provision of services, as is found in France. Some other countries, such as New Zealand, use a model of public financing and private provision. Finally, a few countries, notably the United States, rely heavily on private financing and private provision of ECED services. In the United States, public funds only finance ECED services targeted to the most disadvantaged children.

Table A5.1. Different Forms of Financing and Provision of ECED Services: Three Examples

	Public provision	Private provision
Public financing	France: Services for children aged 2 to 6 are publicly supported and free, and are provided by public providers.	New Zealand : Government supports private provision of services for all children.
Private financing	—	United States: Parents cover most of the costs. There is limited private funding for targeted services to the poor, and 90% of the provision is private.

Sources: Kamerman 2001; OECD 2001.

France: In France, additional government funds are earmarked for specific programs serving poor children to ensure that they have access to better programs. France spends an estimated 10 percent more per student on preschools that are located in disadvantaged areas, called “educational priority zones.” This funding is used to reduce class sizes, award bonuses to teachers, and hire specialists and support staff.

New Zealand: The Ministry of Education works in close partnership with the private sector for the provision of ECED services. The roles played by the Ministry of Education are facilitative (in terms of financing) and regulatory, while private providers handle the actual service delivery. There are many different models of private ownership and operation in the early childhood education sector in New Zealand. Some services are community-based, that is, operate on a not-for-profit basis. The definition of community-based also includes ECED services owned by public bodies such as government departments or councils, as well as by incorporated societies, charitable trusts, statutory trusts, and community trusts. Government funding is provided to private ECED providers through different funding streams. Following are some of the most important funding options.

The ECED funding subsidy is the main form of government funding for chartered ECED services. All chartered services are eligible. Chartered centers are centers that meet the standards set by the Ministry of Education for the property, health and safety, staff education, and management. The subsidy contributes to providers’ operating costs by paying for part of each hour that each child spends in ECED up to a maximum of six hours a day and 30 hours per week. Service providers receive their subsidy in a lump sum three times a year. About 80 percent of the government’s funding is distributed through this funding scheme. There are two rates of funding, and centers are eligible for the higher rate if they employ more than a minimum number of

qualified staff or have better than minimum staff-child ratios. Rates are different for children under 2 years of age than for those over 2.

Equity funding provides additional resources to targeted communities to help improve access to quality ECED. Funding is available to community-based chartered ECED service providers to reduce educational disparities and remove barriers to participation by poor children. Services that receive this type of funding include those that cater for families from poor socioeconomic areas, those that serve significant numbers of children from non-English-speaking backgrounds, and those that provide services in isolated areas.

Discretionary grants are annual allocations made to eligible early childhood education providers (licensed/chartered or eligible to become licensed) for the following purposes: to establish new licensed and chartered early childhood centers, to increase the number of places available in existing centers in areas where participation in ECED is low or in areas of high population growth, and to support groups that are working to become licensed and chartered. Groups can only apply for one grant, either a planning or building grant, for the same project in one financial year. Planning grants support noncapital costs involved in planning a new early childhood center, such as the costs of a community needs assessment survey or of center design. Building grants support new buildings or extensions to existing buildings and improvements for health and safety.

Funding for license-exempt services contributes toward the basic costs of operating a license-exempt service, such as a playgroup. Playgroups are community-based groups run by parents. They give parents the opportunity to get together while their children participate in a play program. Playgroup sessions are set up in community halls where equipment is put out before each session and cleared away afterwards. Government funding is used to pay for equipment and for renting the halls. The Ministry of Education also helps some of these groups to grow into ministry-funded licensed or chartered services.

Most funding rates are based on two components: a basic component that reflects standard operating costs for all ECED services and a variable component that provides a subsidy for the specific costs associated with different ECED service types (for example, full-day service versus half-day or seasonal, higher adult-child ratios, teacher-led versus parent-led services, etc.).

United States: Unlike New Zealand, which provides government funding to support all types of ECED services as well as additional funding for services targeting the disadvantaged, the U.S. government finances only a specific targeted intervention: the Head Start and Early Head Start programs. Head Start provides comprehensive ECED services (including educational, health, nutritional, social, and other services) to low-income preschool children and their families. Early Head Start is a two-generation program design to provide high-quality child and family development services to low-income pregnant women and families with infants and toddlers.

Flexibility in local program design and operation is encouraged, so there is wide variety in terms of how Head Start and Early Head Start services are delivered—for example, through center-based or home-based services or a combination of the two (table A5.2). There are also differences in local program costs, sponsoring agencies, and coordination.

The Department of Health and Human Services (of the federal government) awards Head Start/Early Head Start funds directly to local public and private nonprofit grantees. The grantees contribute 20 percent of their own operating costs, either in kind or in cash. Each year funds are awarded to about 1,500 grantees from state allocations determined by a legally binding formula. From the total Head Start yearly appropriation, a percentage must be reserved for migrant Head Start, training and technical assistance, and discretionary payments. A portion of the funds can also be used to make grants to the states to foster collaboration among Head Start programs within the state.

Table A5.2. Types of Service in Head Start and Early Head Start, United States

Program and age	Home-based option	Center-based option	Combination
Head Start (3 to 6)	Staff called home visitors teach parents how to provide learning experiences for their own children.	Services are provided to children in a center-based program.	Services are provided to children both in a center and through intensive work with the child's parents and family at home.
Early Head Start (prenatal to 3)	Services are provided to children and their families primarily through weekly home visits and bimonthly group socializations. Referrals may be made for family support services.	Services are provided to children in a center-based program. Parents receive regular parenting education and family support through two home visits a year. Health services may be offered through the center and referrals are made for other family support services.	Services are provided to children through a prescribed combination of home-based and center-based services.

Source: Butler and Gish. 2003.

Annex 6. Examples of ECED Professional Development Systems

An early childhood professional development system is designed to reflect a continuum of professional development. Different levels identify levels of preparation for which standards have been established nationally. One example of a combined stepwise professional development career in ECED in the United States is the model proposed by the National Association for the Education of Young Children (NAEYC), described below. Another example is the Child Development Associate (CDA) National Credentialing Program developed by the U.S.-based Council for Professional Recognition. Its objective is to raise the standards of early childhood educators. Those who complete the program with a specified level of competency receive credentials as Child Development Associates, which enhances their professional recognition. The CDA program has developed its own training material, *Essentials for Child Development Associates*, which consists of eight thematic units based on the CDA Competency Standards.

The NAEYC's position statement, *A Conceptual Framework for Early Childhood Professional Development*, provides the following definitions of early childhood professional categories.

Early Childhood Professional Level VI

- Successful completion of a Ph.D. or Ed. D. in a program conforming to NAEYC guidelines; or
- Successful demonstration of the knowledge, performance, and dispositions expected as outcomes of a doctoral degree program conforming to NAEYC guidelines.

Early Childhood Professional Level V

- ③ Successful completion of a master's degree in a program that conforms to NAEYC guidelines; or
- ③ Successful demonstration of the knowledge, performance, and dispositions expected as outcomes of a master's degree program conforming to NAEYC guidelines.

Early Childhood Professional Level IV

- ③ Successful completion of baccalaureate degree from a program conforming to NAEYC guidelines; or
- ③ State certificate meeting NAEYC certification guidelines; or
- ③ Successful completion of a baccalaureate degree in another field with more than 30 professional units in early childhood development/education including 300 hours of supervised teaching experience, including 150 hours each from two of the following three age groups: infant and toddlers, 3- to 5-year-olds, or the primary grades; or
- ③ Successful demonstration of the knowledge, performance, and dispositions expected as outcomes of a baccalaureate degree program conforming to NAEYC guidelines.

Early Childhood Professional Level III

- ③ Successful completion of an associate degree from a program conforming to NAEYC guidelines; or
- ③ Successful completion of an associate degree in a related field, plus 30 units of professional studies in early childhood development/education, including 300 hours of supervised teaching experience in an early childhood program; or

- ③ Successful demonstration of the knowledge, performance and dispositions expected as outcomes of an associate degree program conforming to NAEYC guidelines.

Early Childhood Professional Level II

- ③ II B. Successful completion of a one-year early childhood certificate program.
- ③ II A. Successful completion of the CDA Professional Preparation Program, or completion of a systematic, comprehensive training program that prepares an individual to successfully acquire the CDA Credential through direct assessment.

Early Childhood Professional Level I

- ③ Individuals who are employed in an early childhood professional role working under supervision or with support (e.g., linkages with provider association or network or enrollment in supervised practicum) and participating in training designed to lead to the assessment of individual competencies or acquisition of a degree.

Source: NAEYC 1994.

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