

Early Childhood Care and Education: Building the Foundation for Lifelong Learning and the Future of the Nations of Asia and the Pacific

Gwang-Jo Kim

Mami Umayahara

UNESCO Asia-Pacific Bureau for Education

Thailand

The progress of the Asia-Pacific region towards the first goal of Education for All, 'expanding and improving comprehensive early childhood care and education (ECCE), especially for the most vulnerable and disadvantaged children', is reviewed in this article. Comprehensive ECCE aims to foster holistic growth, development and learning of children from birth to eight years of age and as such, it involves diverse and interlinked care and education areas, such as health, hygiene and nutrition; early stimulation, guidance and development activities; and support to parents and families. Although the pre-primary enrolment has increased in the past decade at the regional level, huge disparities continue to exist among and within countries, and the countries in the Asia-Pacific region are far from providing equal opportunities for all children from birth. While highlighting country examples that aimed at expanding and improving the quality of ECCE, the paper points out the remaining challenges in the region, such as inter-sectoral co-ordination, reaching the most marginalised groups as well as the under-threes, increasing public investment in ECCE and setting quality standards to ensure quality ECCE for all children.

Key words : early childhood care and education, Asia and the Pacific, Education for All, UNESCO

Introduction

Asia and the Pacific is a region of great diversity and disparity. It is home to more than four billion people (two-thirds of the world population), of whom some 950 million – or one in every four persons – are living below the poverty line (\$PPP1.25 at 2005

prices). Education for All is far from being achieved in this region given that in 2007 there were an estimated 27 million out-of-school primary school-age children, 72 million illiterate youths (age 15-24) and 500 million adult illiterates (age 15 and over). South and West Asia account for more than half the world's 759 million illiterate adults. An estimated 36 percent of their adult populations, or 391 million adults, lack the basic literacy and numeracy skills needed in everyday life. On the other hand, countries which have achieved universal primary education, or which are close to achieving it, are facing new challenges. These include having to expand comprehensive early childhood care and education, and reform of

Correspondence concerning this article should be addressed to Gwang-Jo Kim, Director, and Mami Umayahara, Programme Cycle Management Specialist, UNESCO Bangkok, Asia-Pacific Bureau for Education, 920 Sukhumvit Rd, Bangkok 10110, Thailand. Electronic mail may be sent to gj.kim@unesco.org

secondary education and technical and vocational education and training, which in turn are influencing the growth and internationalization of tertiary education.

The purpose of this paper is to assess progress towards the first goal of Education for All, namely, ‘expanding and improving comprehensive early childhood care and education (ECCE), especially for the most vulnerable and disadvantaged children’ (UNESCO, 2000). Comprehensive ECCE aims to foster holistic growth, development and learning of children from birth to eight years of age and as such, it involves diverse and interlinked care and education areas, such as health, hygiene and nutrition; early stimulation, guidance and development activities; and support to parents and families. This article highlights the progress and remaining challenges of ECCE in the Asia and Pacific region, as presented at the World Conference on ECCE, 27-29 September 2010 in Moscow.

State of Children in Asia and the Pacific: Some Key Statistics

The chances of survival of young children has been improving in the region, as seen in Figure 1, which

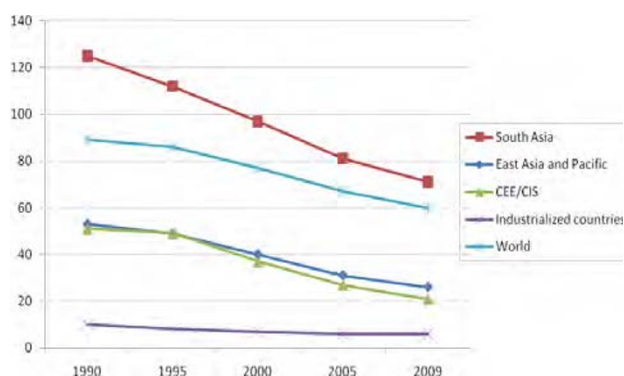


Figure 1. Evolution of Under-Five Mortality Rate (per 1,000 live births)

Note. From “<http://www.childinfo.org/mortality.html>”

indicates the evolution of the under-five mortality rate since 1990. Despite the decreasing trend, the under-five mortality rate remains high in South Asia where 71 of every 1,000 children born alive die before they turn five.

Are children who survive to their fifth birthdays healthy? One of the important and commonly used indicators for young children’s well-being is their nutrition status. Stunting—low height for age—in particular, is used as a key indicator for undernutrition as it is caused by chronic undernourishment. Malnutrition is not only closely related to child mortality, but research shows that stunting in early childhood affects children’s learning abilities as well as deficits in IQ and school performance in later life (Caulfield, Richard, Rivera, Musgrove, & Black, 2006). In this sense, the region’s high prevalence of children under-five years of age suffering from stunting is worrisome, particularly in South Asia, which has the world’s highest proportion of children age five and under suffering from stunting (Figure 2). According to the WHO data, the countries in the Asia and Pacific region with highest percentages of children under five suffering from stunting are: Afghanistan (59%), Timor Leste (54%), Nepal (49%), India (48%), Bhutan (48%), Lao PDR (48%), DPRK (45%), Bangladesh (43%), Papua New Guinea (43%), Cambodia (42%), Pakistan (42%) and Myanmar (41%).

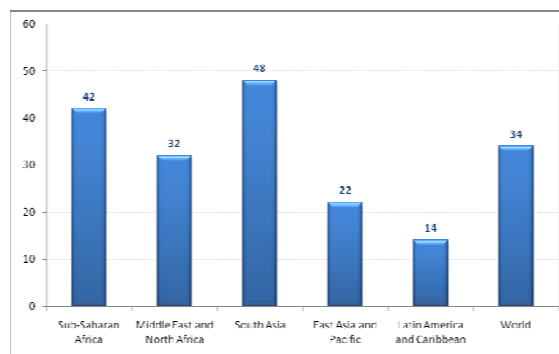


Figure 2. Percentage of Children Under Five Years Suffering from Stunting by Region (2003-2008)

Note. From “WHO data cited in UNICEF, 2009”

Definition of and Access to ECCE in Asia and the Pacific

How is ECCE defined in education policy documents and what are the key features of ECCE in the region? While there is general agreement at the international level that ECCE refers to the comprehensive attention provided to children from birth to eight years of age, different terms are used in different countries for ECCE services. They reflect the distinctive emphasis given by each country in terms of age groups and the service component. In practice, the entry to primary school is most commonly associated with the end of the early childhood period, while in the health sector five years of age is considered to be the critical threshold for the young child's survival. Table 1 summarises the terms used by countries to denote early childhood services and their corresponding age groups.

Rao and Sun (2010) state that the integration of care and education components is a recent but increasing

phenomenon in many countries (e.g., Bangladesh, Nepal and Sri Lanka). Some countries such as the Pacific island states, Bhutan, Maldives and Pakistan still tend to focus on pre-school education (Ibid, pp. 7-8.). Central Asian countries, on the other hand, share a history of the Soviet era kindergartens which provided holistic services to children from zero or one to seven years of age. However, these countries have suffered dramatic drops in ECCE access and quality due to economic decline during their transition to political independence.

Access to ECCE services provides children with development and learning opportunities outside the home. This can be beneficial to all children but particularly those from disadvantaged families on low incomes or family environments with little positive stimuli. Access to and participation in quality ECCE thus help level the playing field for children from disadvantaged backgrounds by supporting their development, learning and school readiness. Over the past decade, the participation in ECCE

Table 1

Terms used for ECCE Services in Countries in Asia and the Pacific

Term	Age	Countries
Early Childhood Care and Education (ECCE)	0-5	Myanmar
	0-6	India, Malaysia, Viet Nam
	3-5	Bangladesh
Early Childhood Education and Care (ECEC)	0-5	Australia
Early Childhood Education (ECE)	0-5	Japan, Republic of Korea
	0-6	Indonesia, New Zealand
	3/4-5	Cooks Island, Fiji, Marshall Islands, Samoa, Pakistan
Early Childhood Care and Development (ECCD)	0-5	Thailand, Sri Lanka
	0-6	Cambodia, Lao PDR, Philippines, Singapore
Preschool Education	0-7	Kazakhstan, Kyrgyzstan
	1-7	Tajikistan, Turkmenistan
	3-6/7	Uzbekistan
Pre-primary Education	4-6	Maldives

Note. From "Early childhood care and education in the Asia-Pacific Region: Moving towards goal 1," by N. Rao, and J. Sun, 2010, *WCECCE Asia Pacific-Regional Report*.

programmes increased in all sub-regions of Asia and the Pacific, as indicated by the gross enrolment ratios (Figure 3).

Although the reference age groups are different from country to country, this sub-regional comparison gives a general impression that the participation in pre-primary programmes in 2007 (latest data available) was highest in the Pacific (67%) followed by East Asia (47%) and South and West Asia (36%), while it was the lowest in Central Asia (28%) where the increase in the gross enrolment rate since the end of the 1990s was nonetheless the largest (19 percentage points).

A closer look at the enrolment rates at the country level elucidates the enormous differences among countries in terms of providing opportunities for young children to participate in ECCE programmes (Figure 4). As indicated by the gross enrolment ratios

(i.e. total enrolment in a specific level of education regardless of age, expressed as a percentage of the population in the official age group corresponding to this level of education), the countries' capacity to enrol [enrol?] all children in centre-based pre-primary education ranged from less than 10% in Bhutan (1.0%), Vanuatu (7.1%), Myanmar (6.3%) and Tajikistan (9.0%) to above 90% in the Republic of Korea (111.1%), Tuvalu (106.8%), Maldives (101.3) and New Zealand (94.1%). Figure 4 also indicates that the actual enrolment of the official age group for this education level can be in fact much lower where the net enrolment ratios are available, for example in the Republic of Korea, Australia and the Maldives. It is important to note that these official age groups are three years or older (often one or two pre-primary years), and that the participation data for children below three years are rarely available.

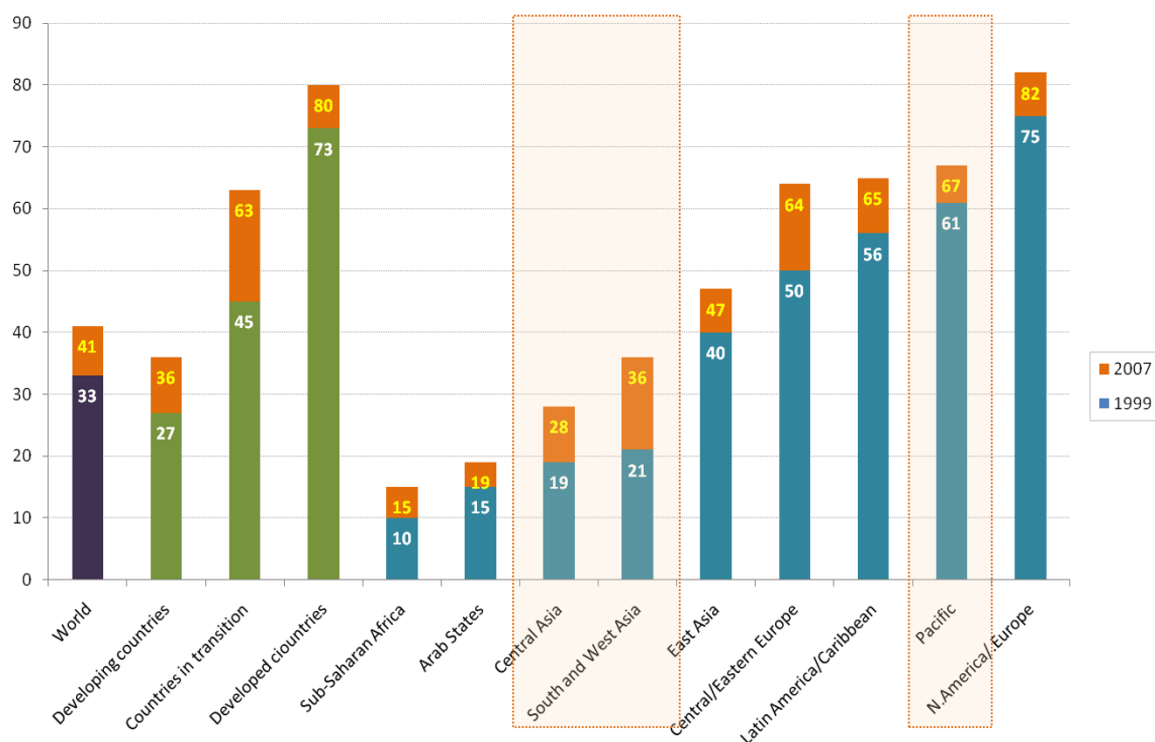


Figure 3. Gross Enrolment Ratios in Pre-Primary Education per Sub-Region (1999 and 2007)

Note. From "UNESCO Institute for Statistics, http://stats.uis.unesco.org/unesco/TableViewer/document.aspx?ReportId=143 & IF_Language=eng"

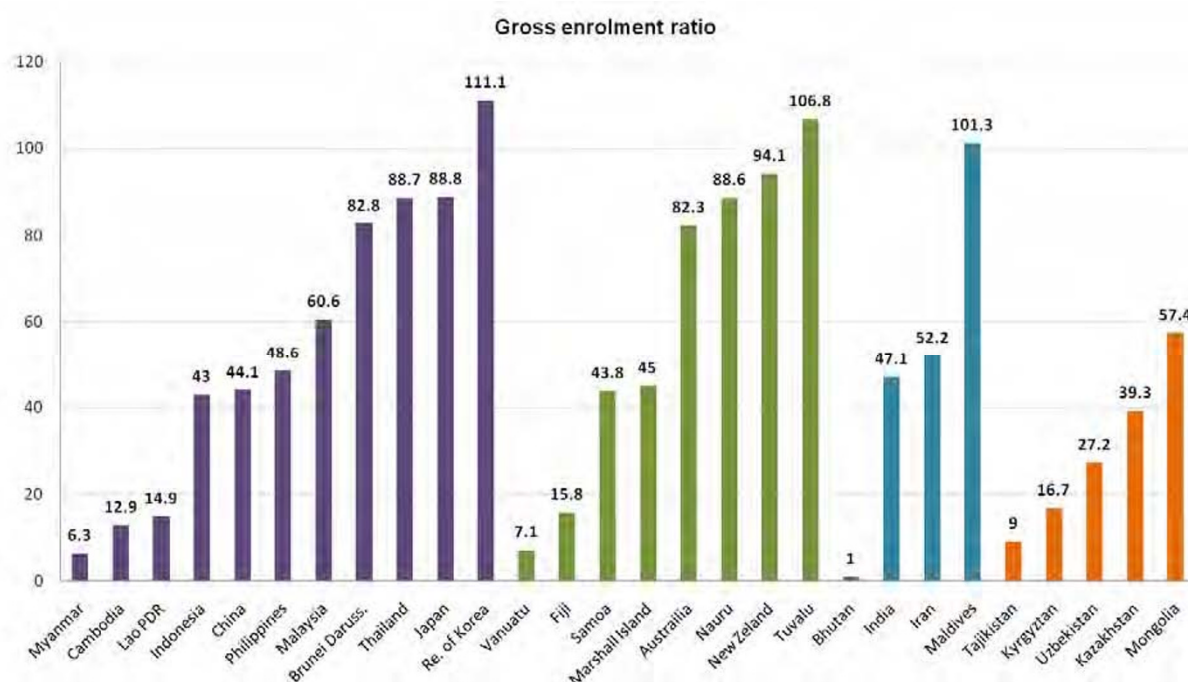


Figure 4. Gross and Net Enrolment Ratios in Pre-Primary Education (c. 2007)

Note. From “ UNESCO Institute for Statistics, http://stats.uis.unesco.org/unesco/TableViewer/document.aspx?ReportId=143&IF_Language=eng”

Governance and Policy Framework

While there is an increased recognition of ECCE as the first level of the education system and part of basic education, few countries have developed a comprehensive national ECCE policy framework that encompasses children’s holistic development and learning from birth. One reason for this challenge in policy co-ordination is the fact that many ministries, public and private institutions and NGOs are involved in the provision of ECCE, which poses a risk of fragmentation and overlap of services and a diffusion of responsibility (Rao & Sun, 2010, p. 55). Another reason is due to the decentralisation of ECCE service delivery without adequate resource allocation and capacity building at the local level.

In order to improve inter-ministerial and inter-institutional co-ordination, countries in Asia and the Pacific have adopted different strategies, including

the designation of a lead line ministry (e.g., Ministry of Education and Training in Viet Nam), the establishment of a co-ordination ministry for children (e.g., Ministry of Women and Child Development in India and Ministry of Women and Children Affairs in Bangladesh) and the establishment of an inter-ministerial co-ordination body often attached to the Office of the President (e.g., National ECCD Council in the Philippines).

The advantages of having the ministry of education as a lead ministry and integrating ECCE services within the education sector include curricular continuity from under-3 years through primary school, and the integration of the early years teaching profession for both under and over three year olds (UNESCO, 2010). There is a risk, however, that without adequate policy and curricular provision and professional development of carers/educators, the integration of ECCE provision within the education

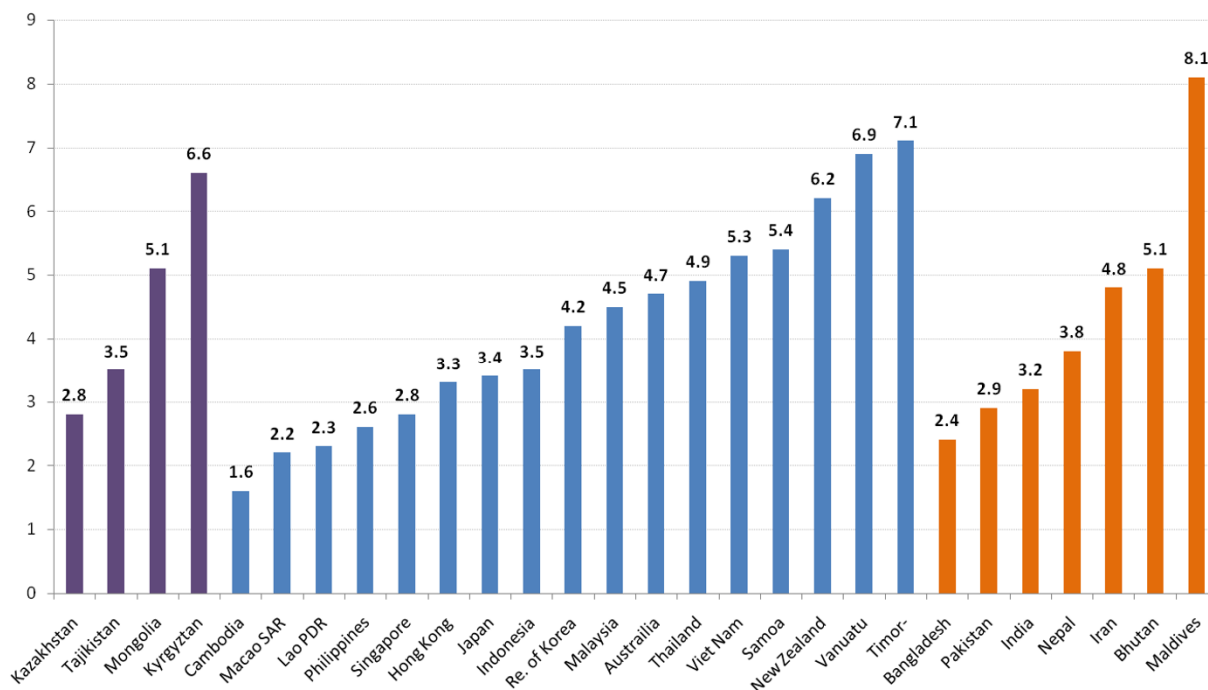


Figure 5. Total Public Expenditure on Education as a Percentage of GNP (2007)

Note. From “UNESCO Institute for Statistics. [http://stats.uis.unesco.org/unesco/TableViewer/document.aspx?ReportId=143 &IF_Language=eng](http://stats.uis.unesco.org/unesco/TableViewer/document.aspx?ReportId=143&IF_Language=eng)”

sector might lead to inadequate pedagogical practices for young children (e.g., ‘schoolification’ of ECCE services); and the ECCE sub-sector may have to compete for resources with other educational levels. Several studies on this issue (UNESCO, 2010; UNESCO-OREALC, 2004) point to the fact that there is no one size that fits all countries. Regardless of the option for co-ordination a country may choose, it is critical to ensure the government’s recognition of and sustained political commitment to the holistic nature of early childhood.

On the other hand, many governments in the region have decentralised public service delivery, including ECCE, as a strategy to increase their relevance, efficiency and accountability. However, since resources and expertise are not distributed equally across countries, ECCE services tend to concentrate in urban areas for children coming from

affluent family backgrounds. For this reason, decentralisation could further exacerbate inequity. In stressing the role of good governance in promoting equity in access to and quality of education, the 2009 EFA Global Monitoring Report (UNESCO, 2008) argued that governance reforms in recent years have focussed on improving efficiency, with limited regard for equity, thus increasing inequality in education financing in many countries. The report thus advocates for the central government’s retention of a redistributive capacity ‘consistent with commitments to inclusive education and equal opportunity for education’ (p. 151). The Regional Report (Rao & Sun, 2010) also highlights that research on the process and impact of decentralisation of government expenditure on ECCE is scarce and needing attention, so that the provision and quality of services are ensured across a country.

The fact that in most countries governments do not or cannot provide universal access to ECCE, has led to the governments' prioritisation of one or two last preschool age groups (hence insufficient attention to under three years) on the one hand, and the heavy reliance on private or non-state service providers (NGOs, faith-based institutions and for-profit providers) on the other. Although the role of the private sector is negligible in Central Asia, private pre-primary services account for over 99% of provision in Indonesia, Samoa and Fiji. The number of for-profit private preschools is increasing in the growing market economies of South and Southeast Asia. This can encourage parental choice, competition and efficiency but also risks the exclusion of children in disadvantaged situations. It also risks the proliferation of poorly regulated preschools that may make use of inadequate quality standards including inappropriate pedagogic orientation characterised by the academic-oriented, downward extension of primary education.

Finance

The 2007 EFA Global Monitoring Report (UNESCO, 2006) underscores the importance of policy, governance and finance for promoting quality ECCE for all children. According to the latest UNESCO Institute for Statistics data presented in the 2010 EFA Global Monitoring Report (2009), developed countries invested on average 5.3% of their Gross National Product in education, while developing countries invested 4.5% on average. Although there is no 'magic number' for this indicator that guarantees quality education for all, a high percentage of public expenditure on education is interpreted as an indication of high level government commitment to investment in education. Among the countries in the region that have data available, this indicator shows a wide difference, from 1.6% in Cambodia to 8.1% in the Maldives.

While the level of public funding in education is an important indicator of the importance given to education by governments, how they allocate

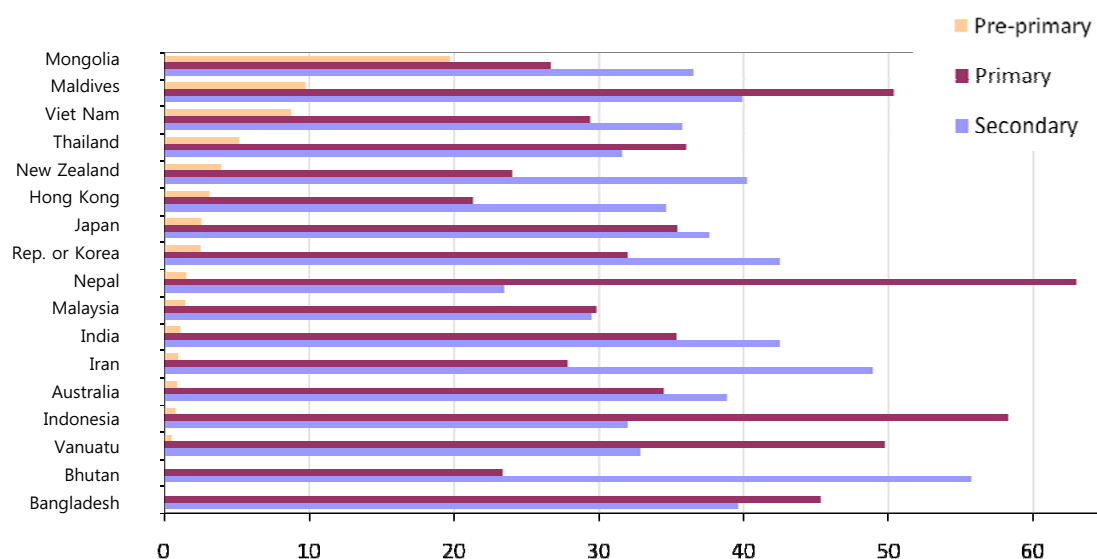


Figure 6. Percentage of Public Education Spending per Education Level (2007)

Note. From "UNESCO Institute for Statistics, http://stats.uis.unesco.org/unesco/TableViewer/document.aspx?ReportId=143&IF_Language=eng"

resources within the education sector also tells us something important about their selection of priorities and education governance (UNESCO, 2008, p. 134). As illustrated in the Figure 6, public spending on pre-primary education as a percentage of the total education budget is negligible in most countries of the region with the exception of Mongolia (19.7%), the Maldives (9.8%) and Viet Nam (8.8%). In spite of the research evidence of the significant impact of quality ECCE on children's development (Mustard, 2002; US Department of Health and Human Services, 2005) and of early interventions' much higher return on investment than later remedial skills investment (Heckman, 2008), there are a number of factors affecting this relative neglect of ECCE by governments. First, unlike basic education, this may reflect a lack of public consensus on the role of governments for ECCE in many countries of the region. As mentioned earlier, they rely heavily on the private and non-governmental sectors for ECCE service provision with costs often met by families, communities, NGOs and international donor agencies. There is the persistent belief that the responsibility for young children's care and education is in the private domain of the family, not a child's right to be ensured by the state. Moreover, in the case of the education sector, governments struggle with the zero-sum game of public funding among different educational levels.

While the public spending for early childhood comes from various government sectors (e.g., education, health, welfare), higher levels of financial commitment to this crucial life and educational stage should be made by the education sector. Moreover, given the important roles played by the non-governmental ECCE providers (both for-profit and non-profit providers, including community and family-based programmes), governments play the key role in providing 'a legislative framework for provision of quality, adequately resourced services' as well as 'an obligation to monitor and regulate the quality of provision to ensure that children's rights are protected and their best interests served' (United

Nations, 2006, p. 14).

Quality

The concept and dimensions of the quality of education have been much debated and there is no shortage of literature on these issues (see the discussions in the 2005 EFA Global Monitoring Report, 'The Quality Imperative'). Within the ECCE field too, the traditional definitions and measurements of 'quality', characterised by the input-process-output model, have been contested by the post-modern perspective that quality is 'subjective, value-based, relative and dynamic' and therefore 'needs to be contextualised spatially and temporally' (Dahlberg, Moss, & Pense, 1999). Myers (2006) argues that despite the broadened perspective in theory and the efforts to define holistically the expected learning and development levels at the national level (e.g., Early Learning and Development Standards developed by UNICEF in partnership with Colombia University and Yale University), internationally comparable ECCE quality indicators continue to focus on inputs such as number of children per adult, availability of materials, teacher qualifications (which depend largely on resource availability and structural conditions) and standardised outcomes such as physical growth and school readiness. He argues that such indicators cannot inform us how to improve ECCE practices such as interaction between teachers and children and inclusion of families and responsiveness to diversity.

Instead of comparing outcomes using a standardised instrument for all countries, what many ECCE scholars including Myers advocate is that each country should define conceptually and operationally the quality of ECCE and establish programme standards for monitoring; and that such a process should be not only informed by research evidence but also should be participatory and inclusive of constituencies, including practitioners, families and

children. National or state/provincial ministries tend not to mandate a rigid national curriculum with detailed goals and content for early childhood programmes but only issue general guidelines. This is partially due to the increased understanding of the diversity of society, young children and their holistic development and learning processes, as well as the awareness of the child-centred, (co-)constructivist approach to learning (Bennett, 2004). Nevertheless, in order to promote a shared sense of purpose and establish programme standards and provide orientation for practitioners as well as families, curricular guidelines are necessary so that all children can benefit from well informed and well facilitated learning opportunities. Examples of national ECCE curriculum in the region include New Zealand’s bicultural early childhood curriculum (*Te Whāriki*) and the early childhood curriculum in China, which balance Western educational concepts and practices with traditional values (Rao & Sun, 2010, pp. 42-43).

In order for ECCE professionals to provide children

with sound development and learning environments, they have to be well trained and supported through resources, reasonable child-staff ratios, peer support and continuous professional development opportunities. Therefore, certain structural measures need to be established and monitored, though interpretation of these monitoring data should be cautious and take into account variations within the contexts (Myers, 2006, p. 34). Figure 7 illustrates the pupil-teacher ratios at pre-primary level, comparing two time periods – the end of the 1990s and the 2000s. It is noticeable that the average pupil-teacher ratio in Central Asia has been low, on average 9.8 children per teacher (despite the marked increase in Kyrgyzstan). In comparison, the pupil-teacher ratio is decreasing in most countries but is much higher in East Asia and the Pacific (21.4% on average), with some countries over or close to 25 children per teacher (Philippines, Japan, Thailand, Malaysia and China).

Tobin (2005) suggests that high pupil-teacher ratios

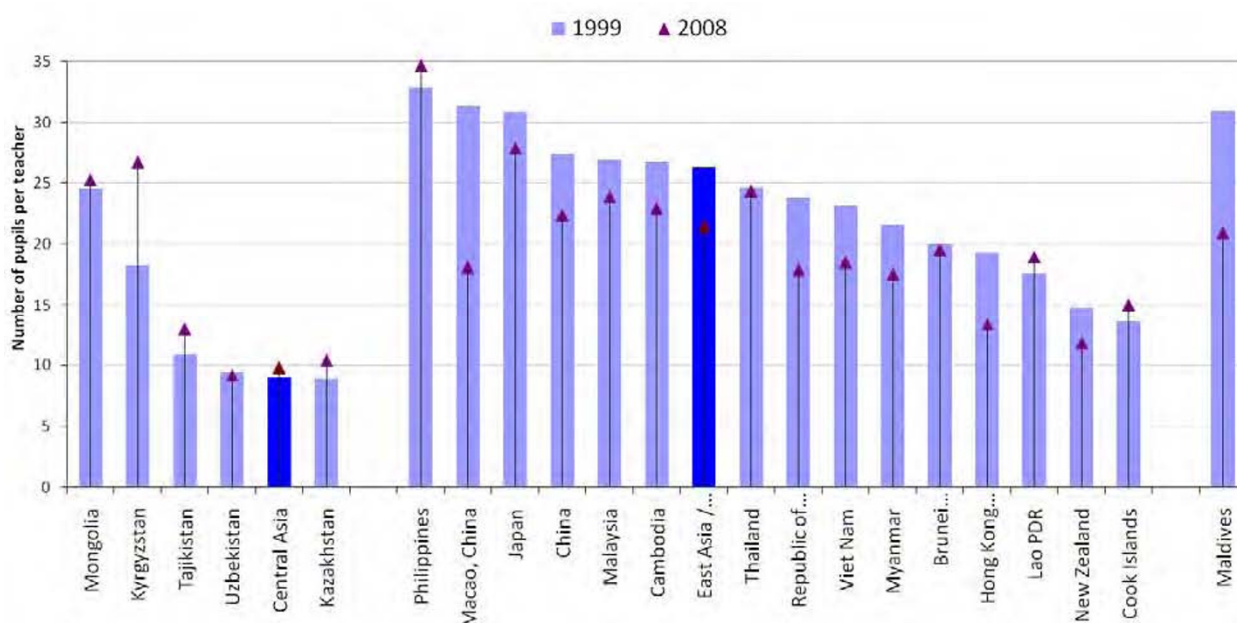


Figure 7. Evolution of the Pupil-Teacher Ratios at the Pre-Primary Level

Note. From “UNESCO Institute for Statistics, http://stats.uis.unesco.org/unesco/TableViewer/document.aspx?ReportId=143&IF_Language=eng”

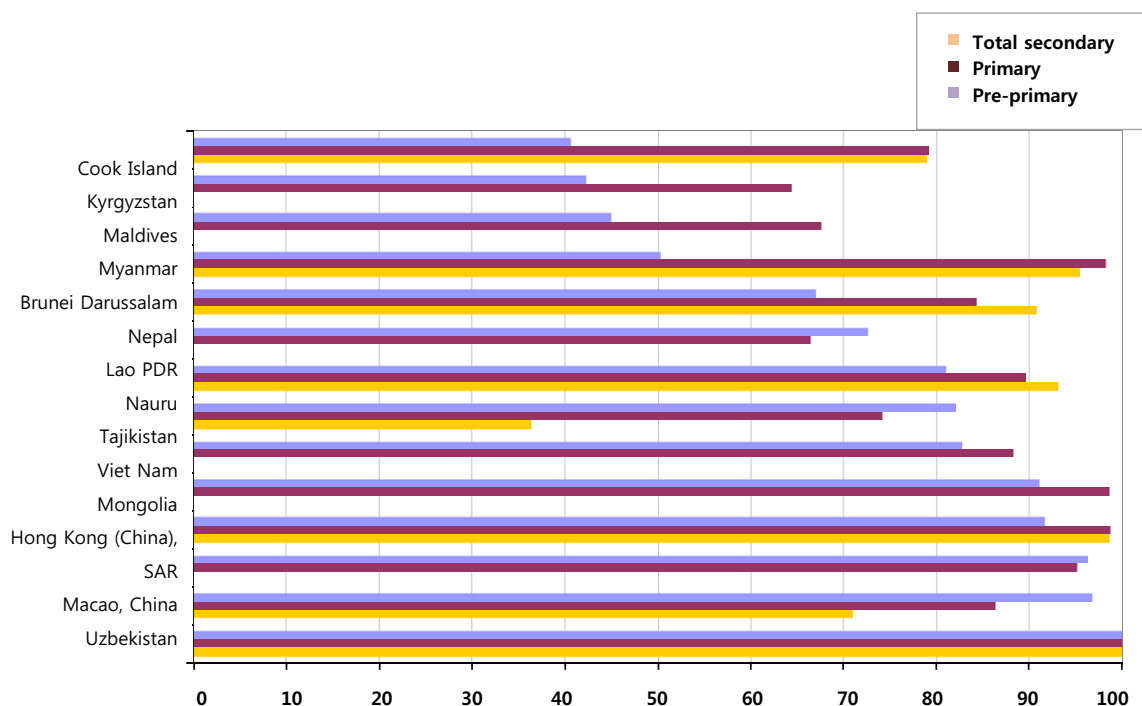


Figure 8. Percentage of Teachers by Level of Education (c. 2007)

Note. From "Source: UNESCO Institute for Statistics, http://stats.uis.unesco.org/unesco/TableViewer/document.aspx?ReportId=143&IF_Language=eng"

in Japan and France, which by US standards can be considered too high and hence represent low provision quality standards, do not seem to affect negatively teachers' classroom practices and children's development. However, Gupta (2001) observes during her action research at a preschool in India, that the large number of children in each classroom, rather than the teacher-pupil ratio, leads to a high noise level, shortage of space, difficulty in managing children in a child-centred environment and limits the time teachers give to each individual child. In the same vein, Bennett (2004) suggests that it may not be possible for many developing countries to reach the low level of pupil-per level enjoyed by wealthy countries, such as Sweden in which the average child-staff ratio for 1 to 6 years is 5.6 children per trained staff member and the national average for the pre-school class for 6-7 year olds is one trained teacher and an assistant for 13 children; nevertheless,

he maintains that by mobilising family members and community educators, programmes for young children can be generated at the local level that enjoy satisfactory child-adult ratios and high relevance to the needs of participating children.

In terms of the qualifications of ECCE teachers, countries in the region are introducing minimum qualifications in order to improve the quality of ECCE programmes. A recent example is Singapore where the professional qualifications for those teaching children above four years of age has been raised from certificate to diploma level and all teachers in kindergartens must now have a diploma. Further, preschool teachers now have to pass at least five subjects (formerly three) in the secondary school certificate examinations. Nevertheless, in some countries (e.g., India), there are no requirements for teacher qualifications in the private sector; while in other countries (e.g., China) rural preschools cannot

meet the government standards for teacher qualifications (Rao & Sun, 2010, pp. 70-71). Figure 8 illustrates the percentage of trained teachers by level of education. There is a major paucity of data and information regarding the qualifications of ECCE staff, so this indicator needs to be looked at with extreme care because a 'trained teacher' simply refers to '[a] teacher who has received the minimum organized teacher training (pre-service or in-service) normally required for teaching at the relevant level' (definition by UNESCO Institute for Statistics) regardless of the length and content of such training.

Conclusion

This brief discussion of the progress of the Asia-Pacific region in achieving the EFA Goal 1 has highlighted – despite the paucity and the limitation of internationally comparative data – some of the key challenges that require urgent attention. There is overwhelming research evidence in the neurobiological, behavioural and social sciences from the past few decades that have advanced our understanding of the conditions and interventions that influence children's brain development as well as subsequent well-being, learning and behaviour (Shonkoff & Phillips, 2000)¹. The high return on investment in ECCE at the individual and societal levels has also been well documented (Mustard, 2002; Heckman, 2008)². What is needed now is to use such evidence to inform public awareness and policy development, through advocacy and capacity development of all stakeholders, including policy-makers, business and community leaders, practitioners and parents, so that they can collectively define and act upon policies and practices that are not only evidence-based but also culturally relevant. To this end, there is an urgent need to better monitor and evaluate existing ECCE programmes with increased efforts for data collection, analysis and capacity building both at national and sub-national levels.

As illustrated in this article, an enormous number of children in the Asia-Pacific region have their rights denied. As signatories to the Convention on the Rights of the Child, the governments of the region have the unique obligation to realise the universal rights of young children, including rights to survival and development (e.g., adequate food, shelter, clean water, formal education, primary healthcare, leisure and recreation, cultural activities and information about their rights), the rights to protection (i.e. protection from all forms of abuse, neglect, exploitation and cruelty, and the rights to participation (including the right to express opinions and be heard, the right to information and freedom of association) (UNICEF, n.d.). This article also indicates that the governments of most Asia-Pacific countries need to increase public spending for ECCE and lead the effort to improve the quality of ECCE programmes. The governments' commitment and leadership in ensuring adequate resource allocation and quality service provision for young children, particularly for those in marginalised and disadvantaged situations, need to be advocated and fulfilled.

In order to provide holistic and inclusive ECCE and reduce the existing marginalisation of inequity, co-ordination and partnerships among different sectors and actors are essential. In many countries, governments alone cannot afford to provide universal and holistic ECCE. However, they have a critical role to play in providing guidelines and monitoring the quality of ECCE services in order to ensure superior ECCE for all children. The recognition of ECCE as the foundation for lifelong learning and the prosperous and peaceful future of nations were strongly echoed by country representatives, experts, civil society organisations and international development agencies during the World Conference on ECCE in Moscow. Given this recognition, holistic ECCE is not a choice or privilege for some; it is a right of all children and an investment for nations and the world. The question we must ask ourselves today 'is not

whether early experience matters, but rather how early experiences shape individual development and contribute to children's continued movement along positive pathways' (Shonkoff & Phillips, 2000, p.6).

References

- Bennett, J. (2004). Curriculum in early childhood education and care. *UNESCO Policy Brief on early childhood*. Retrieved October 14, 2010, from <http://unesdoc.unesco.org/images/0013/001374/137401e.pdf>
- Caulfield, L. E., Richard, S. A., Rivera, J. A., Musgrove, P., & Black, R. E. (2006). Stunting, wasting, and micronutrient deficiency disorders. In D. T. Jamison, J. G. Breman, A. R. Measham, G. Alleyne, M. Claeson, D. B. Evans, J. Prabhath, A. Mills, & P. Musgrove (Eds.), *Disease control priorities in developing countries* (2nd ed., pp. 551-568). New York: Oxford University Press.
- Dahlberg, G., Moss, P., & Pence, A. (1999). *Beyond quality in early childhood education and care*. London: Falmer Press.
- Gupta, A. (2006). *Early childhood education, postcolonial theory, and teaching practices in India: Balancing Vygotsky and the Veda*. New York: Palgrave Macmillan.
- Heckman, J. J. (2008). *Schools, skills and synapses*. Bonn: Institute for the Study of Labor.
- Mustard, J. F. (2002). Early childhood development and the brain. In M. E. Young (Ed.), *From early child development and human development: Investing in our children's future*. Washington, DC: The World Bank.
- Myers, R. G. (2006). Quality in program of early childhood care and education(ECCE). *Paper commissioned for the EFA Global Monitoring Report 2007*. Retrieved October 14, 2010, from <http://unesdoc.unesco.org/images/0014/001474/147473e.pdf>
- Rao, N., & Sun, J. (2010). Early childhood care and education in the Asia-Pacific Region: Moving towards goal 1. *WCECCE Asia Pacific-Regional Report*. Retrieved October 13, 2010, from <http://www.unicef.org/rightsite/sowc/statistics.php>
- Shonkoff, J. P., & Phillips, D. A. (2000). *From neurons to neighborhoods: The science of early childhood development*. Washington, DC: National Academy Press.
- Tobin, J. (2005). Quality in early childhood education: An anthropologist's perspective. *Early Education and Development*, 16, 421-434.
- UNESCO. (2010). *Caring and learning together: A cross-national study on the integration of early childhood care and education within education*. Paris: Author.
- UNESCO. (2009). *EFA Global Monitoring Report 2010: Reaching the Marginalized*. Paris: UNESCO Publishing; Oxford University Press.
- UNESCO. (2008). *EFA Global Monitoring Report 2009: Overcoming inequality: Why governance matters*. Paris: UNESCO Publishing; Oxford University Press.
- UNESCO. (2008). *EFA Global Monitoring Report 2010: Reaching the marginalized*. Paris: UNESCO Publishing; Oxford University Press.
- UNESCO. (2006). *EFA Global Monitoring Report 2007: Strong foundations: Early childhood care and education*. Paris: Author.
- UNESCO. (2004). *EFA Global Monitoring Report 2005: The quality imperative*. Paris: Author.
- UNESCO. (2000). *The dakar framework for education. Education for all: Meeting our collective commitments*. Paris: Author.
- UNESCO-OREALC (2004). *Inter-sectoral co-ordination in early childhood policies and programmes: A synthesis of experiences in Latin America*. Santiago: Author.
- UNICEF. (n.d.). *Convention on the rights of the child: Rights under the convention on the rights of the child*. Retrieved October 20, 2010, from http://www.unicef.org/crc/index_30177.html
- UNICEF. (2009). *The state of the world's children 2009*.

- Retrieved October 13, 2010, from <http://www.unicef.org/rightsite/sowc/statistics.php>
- United Nations. (2006). *UN Committee on the rights of the child (CRC), CRC General Comment No. 7 (2005): Implementing child rights in early childhood*. Retrieved October 14, 2010, from <http://www2.ohchr.org/english/bodies/crc/docs/AdvanceVersions/GeneralComment7Rev1.pdf>
- U.S. Department of Health and Human Services, Administration for Children and Families. (2005). *Head Start Impact Study: First year findings*. Washington, DC: Author. Retrieved November 22, 2010, from http://www.acf.hhs.gov/programs/opre/hs/impact_study/reports/first_yr_execsum/firstyr_sum_title.html
- World Bank. (n.d.). *World Bank updates poverty estimates for the developing world*. Retrieved April 7, 2010, from <http://siteresources.worldbank.org/DEC/Resources/Poverty-Brief-in-English.pdf>

Mustard, 2002, pp. 41-43). Heckman's analysis reveals that investment in early childhood development for disadvantaged children provides 10 percent each year to society through increased personal achievement and productivity.

Notes

- ¹ This article is drawn on the Regional Report for Asia and the Pacific (Rao and Sun, 2010) commissioned by UNESCO for the World Conference on Early Childhood Care and Education, held from 27 to 29 September 2010 in Moscow, Russian Federation.
- ² On the basis of an extensive review of scientific research evidence, Shonkoff and Philips (2000) conclude that the significant developmental impact of early experiences, caregiving relationships, and environmental threats is incontrovertible: 'Virtually every aspect of early human development, from the brain's evolving circuitry to the child's capacity for empathy, is affected by the environments and experiences that are encountered in a cumulative fashion, beginning early in the prenatal period and extending throughout the early childhood years' (p. 6).
- ³ One of the best-known studies include the High/Scope Study, in which children from poor families who attended a quality preschool programme showed long-lasting benefits, including better school performance and employment and fewer behavioural problems, including teenage pregnancies and criminal activities (cited in